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Shifting production/shifting consumption: A political ecology of health perceptions in Kumaon, India

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ABSTRACT

Despite rapid economic growth, India has not seen the improvements in food and nutritional security that other developing countries have had. This "Asian enigma" has generated a wealth of economistic analyses seeking to explain the persistence of poor nutrition, yet few studies have looked at everyday experiences of changing food systems, and how this impacts nutritional practices as well as the processes of subject formation. In this paper, I draw on qualitative research conducted in Uttarakhand, North India and examine how state-led shifts in agricultural production have resulted in changing food consumption practices and diminished perceptions of health. Villagers link this decreased health to increased chemicals in home-produced food, greater dependence on the market for food purchases, and generational changes in dietary preferences. Despite villagers' cognizance of the negative health effects of these practices, they largely view these byproducts of capitalistic development with an air of inevitability. Following Mansfield (2011) this paper contributes to the political ecology of health literature by employing the concept of food as a "vector of intercorporeality" (Stassart and Whatmore, 2003:449) and bringing this into conversation with a poststructuralist understanding of subjectivity. I argue that within shifting landscapes of agriculture production and food consumption, notions of diminished health are indicative of the complex and always incomplete processes of subject formation. I view shifting health perceptions as intimate bodily resistances to agricultural development, and conclude that within agricultural development programs a focus on bodily health and well-being is a fecund platform for further experimental research that seeks to imagine development differently.

1. Introduction

As I traversed the hills of Kumaon, I often heard the curious declaration that "people's health used to be better". I found this observation peculiar given that we were in Uttarakhand – a state that has been lauded in recent years for its impressive economic growth (Gusain, 2014; PC-GOI, 2009). Indeed, life in this sub-Himalayan hill region was starkly different from the recent past, when the now ubiquitous motorbikes and mobile phones were but a distant dream. Along with tourism development and migration remittances, horticultural development has been one of the primary vehicles for this marked growth in income. The hill climate makes this region an ideal locale for high-value temperate zone fruit and vegetable crops that are unable to grow in India's vast Indo-Gangetic plains region (Mittal et al., 2008). The government-subsidized fruit orchards and greenhouses that increasingly dot the landscape are a testament to this shift in production patterns. These shifts have led to a situation where increased incomes mean households are largely self-sufficient in grain stocks year round, which is a major goal of national and international food security policy. However, despite newfound caloric self-sufficiency, I found that people felt that this new type of food consumption, in and of itself, was also productive of weaker human bodies, making them more amenable to fatigue as well as disease.

I find this contradiction especially remarkable given the fact that rates of malnutrition remain "disturbingly high" in India (Fan and Pandya-Lorch, 2012:8, also Menon et al., 2009; IIPS, 2007; Hungama, 2011; von Grebmer et al., 2014), despite state efforts to combat food insecurity since 1937 (Mooij, 1998). Prominent programs introduced by the government to combat food and nutrition insecurity include government grain rationing through the Public Distribution System, free meals and nutrition supplementation for mothers and young children through the Integrated Child Development Services' (ICDS) *anganwadi* centers, and free lunches for government school children in first to eighth grade through the Mid-Day Meal scheme. On the other hand, rural development initiatives such as the National Horticulture Mission (NHM) and Rashtriya Krishi Vikas Yojana (RKVY) attempt to

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improve smallholder profitability and productivity through providing free or subsidized agricultural inputs (seeds, pesticides, and fertilizers) and training on technology or livelihood alternatives (e.g. floriculture). Similarly, non-governmental programs addressing rural food insecurity tend to focus on livelihood diversification, the introduction of 'kitchen gardens', and female empowerment strategies, which are intended to positively impact household nutrition levels (Klennert, 2005).

Despite this mobilization of targeted resources, malnutrition and food insecurity remain major problems in India, which is highlighted by the need for the 2013 populist National Food Security Act that sought to reassert governmental commitment to the cause (UNICEF, 2014; Save the Children, 2009; von Grebmer et al., 2014). Furthermore, while the Indian economy has seen tremendous growth in the last decade, malnutrition indicators have not followed suit at an adequate pace (Fan and Pandya-Lorch, 2012). Thus, there are lingering questions over just why India has not seen the reduction in malnutrition figures that other countries experiencing similar growth have seen.

Academic and political commenters have provided many different plausible explanations for this disconnect. Endemic corruption and bureaucratic inefficiency has long been seen as a major barrier to program functionality. While recent evidence suggests improvements in certain regions, supply chain 'leakages' and absentee village level workers are still implicated as major drivers behind persistence of malnutrition (Khera, 2006, 2011). Gender inequality is also seen as a primary driver of food insecurity, with analysts arguing that increasing female economic and social status is a crucial component in addressing the roots of persistent malnutrition (Shah, 2012; Meinzen-Dick et al., 2012; Vollmer et al., 2014; Quisumbing et al., 1995). Another line of criticism contends that India's agricultural policies have been responsible through ignoring the productivity potential of smallholder, rainfed agriculture and not directing adequate resources toward producers (Sharma, 2011; Rosegrant and Cline, 2003). Lastly, recent research has pointed to the large sanitation problem in India, with some suggesting that open defecation may in fact be a primary cause for India's lingering malnutrition (Spears, 2013; Headey et al., 2014). Moreover, due to researchers' and policymakers' increasing research on micronutrient malnutrition, such as iron-deficient anemia and vitamin-A and iodine deficiencies, the problem is now viewed as more complex, not as simply an issue of calorie or protein deficiency but one that is much more difficult to track, monitor, and address (Barrett, 2010; Gillespie and Kadiyala, 2012). While these macro-level analyses have been useful in depicting the problem using broad strokes, little work has investigated rural peoples' everyday experiences of food and nutrition security in relation to the myriad food and nutritional security programs (Kumar, 2012). In this paper I address this lacuna through analyzing how various program and policies, especially those that promote horticultural development, impact food and nutrition practices and perceptions among villagers in the rural area of Kumaon in Uttarakhand, India.

As the definition of food security is broad in scope,[1] there is a vast literature that seeks to analytically parse the concept into measurable phenomenon and to develop different indicators and scales with which to complete this task (Barrett, 2010; Coates, 2013; Coates et al., 2006; Jones and Ngure, 2013). Recent advancements in this field have argued for indexes to be based on a suite of different scales measuring items such as dietary diversity, caloric intake, safety and cultural acceptability. Notably, it is this latter category of 'cultural acceptability' where tools for measurement have yet to be developed (Coates, 2013, 192). Perhaps this is unsurprising given that theorists have long pointed to the fact that culture itself is an exceedingly complex concept, more of a process than a thing, and always seen to be relational, as well as shaped by actors that fall under its auspices (Williams, 1985). Thus, measuring acceptability within the ever-shifting cultural milieu, is, in short, a challenge. This is especially true when food security interventions themselves may very well be complicit in shifting food cultures and tastes of people.[2] As capturing this dynamic interplay of social, ecologic, and economic change might elude food security scales, ethnographic investigations of how shifting food systems affect perceptions of health are increasingly necessary. Similarly, understanding the shifts in subjectivities that are part and parcel of food system change allows for a more nuanced understanding of food and nutrition security outcomes. Thus, the aim of this paper is not to contribute to these debates, but to appreciate the complexities that food-system change has on the ways people view their health and wellbeing.

While developing different methodologies with which to measure food insecurity is critical to advocacy and fundraising efforts, it is unclear whether these nuanced debates translate into on-the-ground food security interventions (Noack and Pouw, 2015). That is, when programs are operationalized, they may be reduced to basic calorie subsidization, rather than meeting the more lofty goals of providing "nutritious food that meets people's dietary needs as well as their food preferences to maintain a healthy and active life" (FAO, 2001). I take seriously the importance of this oft-forgotten clause by understanding the roles of embodied perceptions and beliefs in relation to a changing food system. Understanding the perceptions of new consumptive practices is particularly relevant given the influx of new research from health psychologists, which confirms that strongly held beliefs about foods produce biophysical reactions as strong as actual food allergies (Crum et al., 2011; Langer, 2009).

Furthermore, there is currently a policy focus on "leveraging agriculture" to approach problems of malnutrition through practices such as crop diversification, biofortification, and the creation of kitchen gardens (IFPRI, 2011; Hawkes et al., 2012; Kadiyala et al., 2012; Ruel and Alderman, 2013). This analysis makes an important contribution to the scant literature on the intersections between agriculture development and embodied conceptions of food security, health, and wellbeing (Bonnin and Turner, 2012; Finnis, 2007, 2008; Panelli and Tipa, 2009). I situate this analysis within the nascent political ecology of health (PEH) subfield. While scholars have enthusiastically discussed the analytical rigor of such approach, the empirical studies using a PEH framework are limited in number. This article both adds to this literature and extends it by more deeply engaging with how biosocial health processes are rich sites of subject formation.

The rest of the article is organized into five sections. First, I review the literature and outline the theoretical tools that I use to unpack food security and health perceptions in Kumaon. Second, I explain my methods and study site, briefly outlining the political ecology of agricultural development in Nainital. This is followed by my findings and discussion, which demonstrate the bodily experiences of changing food systems as well as how

[1] The most widely used definition is "when all people at all times have physical, economic, and social access to sufficient, safe, nutritious food that meets people's dietary needs as well as their food preferences to maintain a healthy and active life" (FAO, 2001).

[2] This has been argued in the case of the Public Distribution System's exclusive allotments of rice and wheat. Whereas many parts of India, including Kumaon, previously used staple grains such as millets or sorghum, now due to the widespread availability of highly subsidized rice and wheat through the PDS these nutritionally superior coarse cereals are no longer seen as palatable or desirable in comparison to their fine-grain counterparts. Thus, a certain definitional tautology arises when food security interventions shift the very food cultures that they are then measured against. Moreover, it becomes possible that food security interventions play a role in shifting food systems and cultures toward a desire for foods that may not necessarily lead to improvements in "the ability to lead healthy and active lives".