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Trading Fat for Forests: On Palm Oil, Tropical Forest Conservation, and Rational Consumption

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Abstract

The longstanding butter vs margarine debate has recently become more complex as the links between margarine, industrial palm oil plantations, and tropical deforestation are made increasingly clear. Yet despite calls for consumers to get informed and take responsibility for tropical deforestation by boycotting margarine or purchasing buttery spreads made with sustainably-sourced palm oil, research in multiple contexts demonstrates that even the most aware, engaged, and rational consumers run into significant barriers when trying to reduce their environmental impacts. This paper supplements important critiques of neoliberal conservation at the site of extraction or intended conservation (Carrier and West 2009; Igoe and Brockington 2009; Büscher et al. 2012), with empirical research from the other end of the commodity chain. It argues that programs which place faith in the ability of rational consumers to influence conservation outcomes through their choices on the market, neglect significant structural constraints and overestimate the efficacy of market choices. While careful to recognise the importance of civic pressure for policy legitimacy, this article also contributes to a special section on rational actors, calling into question the dominant ideology of free and rational choice that undergirds so many market-based conservation programs.

Keywords: rational choice, consumption, neoliberalism, margarine, palm oil, deforestation, biodiversity conservation, Scandinavia

INTRODUCTION

I begin with a conversation around a Swedish Midsummer table, complete with a strawberry cake, pickled herring, fresh potatoes, hard bread, and enough aquavit to make it through Scandinavia's most celebrated holiday and the longest day of the year. As our hostess attempted to teach us how to properly eat pickled herring—with a bit of fresh potato, some cream, and diced chive—a family friend interrupted: "But many people like to eat it on hard bread, also with a little margarine.... Katrin, don't you have any margarine?" Our hostess replied, exuding both scorn and self-righteousness in her expressive

tonal Swedish: "Nej Elsa!... of course I haven't any margarine, I always use butter!"¹

This brief exchange was my first exposure to the passionate views that many Swedes hold in the familiar margarine vs butter debate. Due to aggressive industry-sponsored marketing campaigns in the US and Europe (Lawrence 2008, 2010), most consumers in developed media markets are well aware of this debate which has centered variously on the relative health benefits and culinary qualities of margarine and butter. But these days the debate is even more complicated, particularly for those who are increasingly aware of the links between margarine, industrial palm oil production, tropical deforestation, biodiversity loss, climate change, and environmental injustice.

Concerns about the risks that accompany the globalisation of our food systems are growing internationally (Wright and Middendorf 2008), and a number of consumer-based movements have risen in response, ranging from fair trade (Lyon 2006, 2010; West 2010) and localism (DuPuis and Goodman 2005; Allen 2010) to the slow food movement (Kneafsy et al. 2008) and community-based food initiatives

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(Hinrichs 2003). Many theorists have expressed optimism for these movements, arguing that ethical consumption provides an effective means for concerned global citizens to signal their preferences on the market (Micheletti 2003, Crew 2003; Barnet et al. 2010). In the case of palm oil, the reasoning goes that individual consumers can indirectly influence agricultural production techniques, and thus forest and biodiversity conservation, through their market-based influence on manufacturers, distributors, and retailers of palm oil products.

Perhaps foremost among those who argue for the potential of consumer movements, Beck (1997) has argued that as rational and reflexive consumers learn more about the risks of modernity, and challenge the power of multinational corporations, they will modify their behavior and demand alternatives. Sassatelli (2007: 188) has described Beck's position well, writing: "if modernity was a democracy oriented to producers, late modernity is a democracy oriented to consumers: a pragmatic and cosmopolitan democracy where the sleepy giant of the 'sovereign citizen-consumer' is becoming a counterweight to big transnational corporations". Similarly, Soper (1999) suggests that as consumers become increasingly aware of the risks associated with our globalised food supply, they will redefine needs to reflect the conditions of "late-modernity" and the abundance of choices on the globalised market. These choices lead individuals to participate in what Giddens (1991: 214) refers to as "life politics" which "flow from processes of self-actualisation in a post-traditional context, where globalising influences intrude deeply into the reflexive project of the self, and conversely where processes of self-realisation influence global strategies". From this perspective, in a world of information and free choice, rational consumers concerned about tropical deforestation politicise their choices in an effort to influence global production regimes, helping—in the case of palm oil production—to ensure responsible agricultural production, sustainable forest management, and biodiversity conservation.

In this paper, I draw upon the example of the butter vs margarine debate, certainly only one among many I could have used, to examine these claims and their critiques. The example emerged organically from my research and seems appropriate given the high levels of palm oil consumption associated with margarine. Friends of the Earth's 2004 report *Greasy palms: European buyers of Indonesian palm oil* states that "probably the most important palm oil consuming sector in the European Union is the margarine and spreads industry... the total production of margarine and fat spreads in the EU amounted to 2,191,301 tonnes in 2001" (2004: 52).

The debate over the relative benefits of butter or margarine not only illustrates the competing and complex consumption imperatives of ambivalent consumers, but also brings to light the barriers faced by even those most informed, aware, and committed to reducing their environmental impact. Drawing on these empirical observations, this paper critiques market-based environmental policies which assume that, given the appropriate information, rational consumers can and

will—from thousands of miles away and through complex commodity chains—ensure adequate forest management and biodiversity conservation. Market-based conservation has been critiqued on multiple grounds, effectively challenging the ideology of "win-win" scenarios. Most often these critiques demonstrate ineffectiveness on the ground or bring to light the inequities created or perpetuated by these programs at the site of extraction or intended conservation (Igoe and Brockington 2009, Carrier and West 2009, Büscher et al. 2012). This paper supplements those critiques with empirical research from the other end of the commodity chain. Structural constraints are well recognised in theory, but policies which rely on consumers to buy sustainably sourced palm oil, neglect a parallel recognition of the barriers that constrain consumer agency and rationality. While recognising the limitations of consumer choice, the paper is also careful to acknowledge the importance of consumer and civic pressure for building policy legitimacy. The article thus concludes that polycentric environmental governance structures are more likely to prevent additional biodiversity loss in palm oil producing regions than interventions which place a large burden for environmental welfare on a small segment of ecologically concerned consumers. While consumers can certainly have an important role to play, and human agency should not be discounted, many participating in the research documented here increasingly question and, in some cases, reject the shift from consumer rights to consumer responsibility that has accompanied many market-based environmental policies. Further, while additional research is necessary to verify policy outcomes, it appears that recent governmental moratoriums on palm oil permits in forested areas hold greater potential for the prevention of tropical deforestation and the protection of biodiversity than the contemporary reliance on demand for sustainable products from "rational" consumers.

MATERIALS AND METHODS

During more than 17 months of ethnographic research in Sweden between 2007 and 2012, I sought to understand how environmental risks, like tropical deforestation, are understood and acted upon by people and policy makers in wealthy, post-industrial urban contexts. The conditions of urban alienation, enabled by strong divisions of labor and individualised economic units, raise an interesting set of questions about how people far removed from environmental feedbacks and with little control over productive resources come to understand environmental risks and act on them, given their sphere of influence. Yet at the same time this line of inquiry raises important questions about who has the power to define and solve environmental problems, if not relatively powerful and wealthy urbanites. In post-industrial urban contexts like Stockholm, most people have little control over the means by which their foods are produced, much less access to decisions about the use of land and other natural resources. As such, the majority have little choice but to act on any environmental concerns in their roles as consumers².

Sweden provided a unique opportunity to explore these questions given that Swedes, both urban and rural, have long shown significant concern for environmental issues, particularly when compared to citizens of similar nations (EC 2009), and report higher levels of consumer activism centered on political, ethical or environmental concerns (Micheletti 2003, Ferrer and Fraile 2006). Sweden also makes an interesting case due to its juxtaposition of a strong and mainstream environmentalist ethic (Gullestad 1987, Lofgren 1990), and competitive capitalist economy with high levels of affluence (World Economic Forum 2010), consumption, and thus relative environmental impact.

Individual research participants, men and women who reported attempts to live more sustainably, were asked about their perceptions of environmental risks and appropriate responses during a series of semi-structured interviews³. My intent was to understand diversity in risk perception and response; not to focus on any particular issue/response pairing. Nonetheless, there were several common pairings that emerged during the research, including those that might have been expected, such as climate change and energy conservation, water pollution and organic foods, or waste and recycling. Other prominent themes were not equally anticipated, including the example I focus on here, the links between tropical deforestation and reduced consumption of products that contain significant amounts of palm oil, like margarine.

Based on this research, a series of consumption inventories, a review of policy documents, and interviews with 31 representatives of 24 Scandinavian governmental, non-governmental, and academic organisations, I've argued elsewhere (Isenhour 2010a, 2011, 2012) that contrary to the popularity of policies which suggest that the primary barrier to sustainable living is lack of information, there are significant barriers that even well-informed, rational, and highly motivated consumers find difficult to overcome. Many of the men and women participating in my research make earnest efforts to reduce their impacts, often at considerable personal expense; but are confronted by significant social, economic, and political barriers. These findings suggest that beyond informational and awareness campaigns, at the very least, complementary solutions in non-market sectors are necessary to ensure effective environmental governance (Author 2010b).

This paper draws on a narrow section of this data, focusing on a specific source of consumer environmental concern (tropical deforestation and biodiversity loss) and one commodity (the palm oils used in margarine and many other consumer products). This focus on a single commodity can demonstrate the "social life" (Appadurai 1986) and "vitality" of goods, "the capacity of things... to act as quasi agents or forces with trajectories, propensities, or tendencies of their own" (Bennett 2010: viii), while also bringing to light the global connections that are the cause of both confusion and concern. Following commodities like palm oil from producer through processing, distribution, and retail chains to end consumers produces "knowledge of chains of consequences" (Barnett et al. 2005: 24). In its focus on the consumption of palm oil,

this paper utilises the butter vs margarine debate to illustrate the complexity of competing consumption priorities, but the essay is not about the butter vs margarine debate *per se*. Indeed, it is beyond the scope and ambition of this paper to address all the intricacies of this debate in Sweden or elsewhere⁴.

Materials used for research specific to margarine and palm oil production were gathered via second hand research (e.g. van Stuijvenberg 1969; Pierce 2008; Lawrence 2010), a review of recent policy documents and the public outreach materials published in print and online by Swedish and international environmental NGOs working on palm oil and deforestation (Swedish Society for Nature Conservation, Greenpeace, World Wildlife Fund, Friends of the Earth, and Rainforest Action Network). Analysis of these materials makes it clear that until very recently, the most dominant proposals designed to address the environmental and social problems associated with industrial palm oil production were overwhelmingly focused on market-based solutions and premised on the assumption of free, rational, and voluntary choice among individuals all along the commodity chain. In the following section, I provide background before detailing my research results, and the conceptual and practical aspects of these market-based strategies.

RESULTS: FORESTS, PALM OIL, GLOBAL FOOD, AND SWEDISH CONSUMERS

The margarine vs butter debate has a long history, dating back to Napoleon who promised to reward anyone who could develop a butter substitute for use by military troops, something that was cheap and would not spoil. The dairy industry put up a significant fight and with help from policymakers who levied taxes on, or prohibited, the use of artificial coloring, were able to temporarily limit the production and sale of margarine. As Berg (2010: 21) writes, margarine has historically been a "hot political issue... [with the] power to break up traditional ideological convictions. It made liberal free traders ask for governmental interventions and discriminations, right-wing conservatives demanded harsh state regulation and egalitarian socialists become adherents of highly regressive consumer taxation". Despite the politicisation of margarine, the use of the oily substance spread quickly after its development, and was given a significant boost during WWII when dairy products were rationed and extremely expensive (van Stuijvenberg 1969). Since then the advertising industry has worked hard to convince consumers that modern margarine tastes like real butter and is healthier since it is lower in saturated fat. Recently, concerns with partially hydrogenated oils and trans-fats have increasingly led to the use of tropical oils in margarine; including palm oil which does not require hydrogenation.

But it is the dramatic rise in the use of palm oil, now found in one third to one half of all the items on supermarket shelves (Pierce 2008) that has added a new element to the butter vs margarine debate. A number of environmental NGOs including the World Wildlife Fund, Friends of the Earth, and Greenpeace have mobilised against the palm oil industry and

the multinational corporations that support its production. In an effort to encourage consumers to buy products without (or with sustainably sourced) palm oil, these and other groups have released disturbing images of burning rainforests, emotional videos of baby orangutans clutching their mothers as the chainsaws draw closer, and photos of malnourished children whose families had been displaced by new palm oil plantations.

The problems associated with palm oil production are likely to get worse. Demand for palm oil surged by an average of 2.2 million metric tons worldwide each year between 2000 and 2009 (Grant 2009). Used as edible oil, in myriad oil-based products, and as a feedstock for biofuels, palm oil production and use continues to grow (Butler and Laurance 2010). This surge has had devastating consequences in the rainforests all along the tropical belt, from Belize to Cameroon and Indonesia where native forests are destroyed at alarming rates to clear room for industrial palm oil production (FAO 2010). Despite longstanding governmental and corporate assurances that expansion has not come at the expense of primary forests, several authors have proven otherwise in Malaysia, Borneo, and Peru (Koh and Wilcove 2008; Carlson et al. 2010; Gutiérrez-Vélez et al. 2011). And while many governments and the palm oil industry have pledged that new plantations will be planted on previously deforested or non-forest lands, Butler and Laurence argue that producers in emerging production sites have a significant economic incentive to clear primary forests so that they can use timber profits to invest in the establishment of palm plantations (2010). This trend is disturbing, given the biodiversity concentrated in the areas where oil palm grows best. Borneo and Sumatra, two hotspots of production, are home to tropical rainforests with extremely high levels of net primary productivity, biodiversity, and endemic species. While the palm oil industry has claimed that plantations have the potential to increase diversity, a large and growing body of research empirically documents significant biodiversity losses in forests converted to oil palm (e.g. Hamer et al. 2003; Peh et al. 2005; Koh and Wilcove 2008, 2009). Indeed, Koh and Wilcove (2009) have argued that oil palm presents the most urgent threat to the greatest number of species. Activists in Sweden and around the world have coalesced around concerns for several endangered species, including the orangutans, which are severely threatened by habitat loss due to the encroachment of palm oil plantations.

Not only are these forests home to rich biodiversity, they are also home to many indigenous people who have been displaced on the grounds that they don't have legal title to the lands upon which their ancestors have long lived. Indeed, several authors have observed significant displacement, dispossession, and disempowerment as indigenous people are left with diminished rights to land, and have little choice but to convert to waged labor or small-holder production for the market (Zerner 1991; Lynch 1992; Sirait 2009).

The production of palm oil also has a significant carbon footprint (Danielsen et al. 2009). Because many primary and secondary forests have been felled to make way for palm oil plantations, the emissions associated with deforestation

are significant. Indeed 12% of total anthropogenic CO₂ emissions are associated with deforestation for agricultural purposes (van der Werf et al. 2009). Further, because many palm oil plantations are established on peatlands, the impact is even greater. When these carbon-rich lands are drained and converted to palm groves, carbon that had been sequestered there is released into the atmosphere. When accounting for this, it is estimated that the combustion of palm oil generates as much as 9 times the amount of CO₂ produced by burning coal (UNEP 2009).

Despite these concerns about tropical deforestation, biodiversity loss, indigenous people, and the climate—many palm oil producing nations vehemently defend the industry, arguing that the crop has fulfilled its promise to provide a highly productive and profitable means for poverty alleviation and development. They point to the number of people employed by the industry, and the fact that, in economies like Malaysia's, the palm oil industry accounts for approximately 8% of the nation's GDP (Supaiya and Pereira 2012). While claims that the industry has improved livelihoods are widely disputed—particularly given a troubling history of land appropriation, enclosure, alienation, and forced wage labor—local governments throughout palm-oil producing nations assert their right to development and sovereign environmental governance (MPOB 2012).

To rectify often opposing concerns for both economic growth, and ecological and social sustainability without breaching developing nations' sovereignty, a number of policy solutions have been proposed including payment for ecosystem services schemes (PES) and programs for reducing emissions from deforestation and forest degradation (REDD). There is a strong and growing body of literature on these policies and their environmental and social effects (Igoe and Brockington 2009, Paladino 2011, Checker 2011, Yocum 2012, Doane This issue; Peterson This issue). In the pages to come, I complement these efforts with a focus on supply chain interventions aimed at alternative market locations—corporate responsibility and sustainable consumerism. Both strategies depend heavily on adequate consumer demand which, in turn, is intended to indirectly force the palm oil industry to implement more sustainable sourcing and forest management practices—thus improving forest and biodiversity conservation. Even a preliminary review of international environmental governmental and non-governmental programs on palm oil illustrates the overwhelming dominance of these two approaches, making them important to examine.

Corporate social responsibility

While agricultural commodity chain interventions designed to encourage sustainable production can include actors from multiple sectors (market, civil, and state), and a variety of strategies (institutional formation, policies, incentives, and informational campaigns) (Newton et al. 2013), the earliest responses to rising concerns about palm oil-associated deforestation were concentrated on the market sector.

Several environmental NGOs have successfully pressured corporations to source more sustainably produced palm oil. After a targeted and aggressive 2008 Greenpeace campaign, Unilever (which uses more than 5% of the global palm oil supply annually) agreed to support a moratorium on rainforest destruction and promised that it would source 100% of its palm oil from sustainable plantations by the year 2015 (Pierce 2008). More recently, Greenpeace targeted Golden Agri-Resources (GAR), the second largest global producer of palm oil. The campaign led to a number of cancelled contracts, prompting GAR to agree to pilot a new forest conservation program (Greenpeace 2013). These “voluntary” pledges, made in response to market pressure and in an effort to protect the standing of global brands, are part of what Garsten and Boström (2008) argue is the intensification and widening of accountability struggles in neoliberal contexts when relations of accountability are no longer limited to citizens and states. Yet Newton et al. (2013:7) question the efficacy and long-term viability of corporate social responsibility programs resulting from market pressure. Citing studies by Andersen and Skjoett-Larsen (2009) and Kissinger (2012), Newton et al. (2013:7) write: “CSR is only likely to work if industry views sustainability as a long-term imperative responsibility rather than only a reactionary response to market pressures.”

The Roundtable on Sustainable Palm Oil (RSPO), established in 2004, reflects such an effort, suggesting that the solution to competing demands for forest conservation and economic development can be found, at least in part, by encouraging widespread, if voluntary, industry adoption of sustainability principles. The RSPO—composed of producers, processors, and large consumer goods multinationals (most notably Procter and Gamble, Nestle, and Unilever)—has agreed to a series of more sustainable standards for palm oil production and processing.

While the RSPO claims accountability, in 2008 nearly 200 environment and human rights groups signed an “International Declaration against the Green Washing of Palm Oil by the RSPO” which condemned the industry for trying to put a positive spin on an inherently unsustainable and damaging industry. Critics argued that RSPO members were essentially capitalising on consumers’ interests in sustainability without making an appreciable difference in forest conservation. In his 2008 commentary in *The Guardian*, Pierce (2008: 1) wrote, “after six years of trying to identify sustainable sources of palm oil, the RSPO has to admit that 99% of the ubiquitous edible oil—found in a third of all the products on supermarket shelves—cannot be shown to have been produced sustainably”. Pierce (2008: 1) thus concluded that, “so far, efforts to rebrand palm-oil plantations as oases of sustainability have proved about as convincing as those old ads that insisted you couldn’t tell the difference between butter and margarine”. Nonetheless, the RSPO created a voluntary certification scheme designed to give improved market access to sustainable producers and to provide information to concerned consumers.

Despite these efforts, the RSPO continues to face accusations of greenwashing by international environmental groups as

well as local governmental and non-governmental groups in Indonesia, Papua New Guinea, and Borneo (Zhou 2010, Greenpeace 2010, Jakarta Post 2010). Indeed, research on certification schemes for forest products have illustrated the power differentials that exist in the certification process and the unequal power that government and large multinationals hold to define sustainability (Muttersbaugh 2002, Klooster 2006). Unfortunately, the definitions of the powerful often don’t take into consideration the interests or perspectives of those who are most likely to be affected by certification standards. In 2012, at a meeting convened by the Stockholm Environmental Institute, representatives from Myanmar, Thailand, Cambodia, and Indonesia reported on the ad hoc nature of oil palm development and argued that RSPO, national, and local level information about the sustainability and rate of oil palm expansion are often grossly mismatched (SEI 2012).

Members of the RSPO defend themselves, bolstered by the findings of a 2007 WWF study which found that very few consumers were willing to pay higher prices for more sustainably sourced palm oil. In 2011, only 12% of global palm oil was certified “sustainable” (RSPO 2012), and studies have cast significant doubt on the efficacy of industry-based conservation agendas, even when palm oil production was certified and paired with conservation planning (SEI 2012). European Union proposals to remove import duties on RSPO certified palm oil may help to lower costs for EU consumers, driving demand, but as Newton et al. (2013) point out, the EU accounts for only 22% of palm oil consumption. Without parallel demand for certified palm oil in other international contexts, these mechanisms are unlikely to ensure adequate forest conservation. China and India alone consume more than 50% of palm oil, yet have shown very little interest in more sustainable options (Newton et al. 2013). Given these constraints, the RSPO has emphasised consumer responsibility, education, and incentives. Without the demand of informed and rational consumers, they claim, their hands are tied.

Consumer responsibility

So while many corporations express an interest in and commitment to sustainable production, they ultimately claim that the responsibility to drive this change lies with consumers, who, they assume, can signal their environmental values and demand for alternatives on the market. These claims about consumer responsibility and the failure of corporate social responsibility to result in significant change without adequate consumer interest have led many environmental groups to focus on the issue. The WWF’s webpage on palm oil, for example, opens with a photo of an orangutan and the following quote, “Your shampoo, your ice cream, your margarine, your lipstick—all contain palm oil. Demand is still growing, as are oil palm plantations... but at what price to tropical forests and the biodiversity found there?” (WWF 2012).

These messages have clearly affected some Swedes. One research participant, a pre-school teacher living in a suburb

of Stockholm, said, “I really don’t care how much it costs. If it is more sustainable, I will buy it. And butter, I always buy the butter because—you know that margarine uses oils that are killing the rainforests.” Like many Swedes, Elin had decided, as she said, to “trade fat for forests” by consuming butter instead of margarine. She intended this effort, small as it might be, to contribute to efforts to conserve tropical forests. In one of my earliest experiences in the field, I participated in a climate march that wound its way through downtown Stockholm. Among the many signs that bobbed above the crowd were several that said “*ingen palmojla, rädda klimatet*” or “no palm oil, save the climate.” While I am unaware of any organised palm oil boycotts that took place while I was living and researching in Sweden, it does seem clear that these campaigns had an impact on several research participants. I was surprised by how often discussions about the butter vs margarine debate popped up during interviews or in informal conversations with friends and colleagues. Britt, an accountant and self-declared “health-nut” was perhaps the most impassioned in her explanation of the links between her concerns for sustainability and her choice to buy butter rather than margarine. She argued that margarine was a huge conspiracy, orchestrated by the multinational chemical industry to drive demand for taste enhancers, emulsifying agents, and synthetic coloring. She added, “and these corporate interests, they are all linked and they don’t care about the rainforest or human health, only posting a profit for their shareholders.”

Despite concerns like these, Swedes consume a lot of margarine. According to the Swedish Consumer Coalition, the average citizen eats more than 10 kg (22 lb) of the oily spread annually (2003). This is perhaps because margarine has long been marketed as a healthier alternative to butter (Hedlund 2012). In fact, the World Health Organization and the United Nations Food and Agriculture Organization recently upheld the recommendation that adults replace some of the saturated fatty acids found in foods like butter with polyunsaturated fatty acids like those found in margarine (2010). In Sweden, the National Food Agency also recommends the use of low fat milk and margarine in schools (Livsmedelsverket 2012). Yet, as several scholars and investigative journalists have pointed out, the science behind fats and fatty acids is complex and has long been the subject of contentious debates, several shifts in position among experts, and ongoing uncertainty (Lawrence 2010, Berg 2010). With high levels of scientific complexity and uncertainty about the relative health impacts of butter and margarine, it is easy to understand how even those most concerned about biodiversity conservation, the climate, and deforestation might have a difficult time balancing information and priorities. Concerns about health, price, and taste also color consumers’ decision in the “dairy” aisle.

When consumers participating in this research were asked to freelist all of the things an individual could do to live more sustainably, they demonstrated significant awareness and consensus that one should not buy cheap, processed

industrialised foods from far-away places. In fact, 86% of the research participants listed activities related to the consumption of more sustainable foods. Yet despite this high level of consensus, consumption inventories, shadowed shopping trips, and a cultural consonance analysis (Isenhour 2010) revealed that many research participants were unable to live (and shop) in a manner consistent with their values. During interviews, I discovered that many participants found it overwhelming, confusing, and nearly impossible to keep up with the latest recommendations for sustainable consumption or to balance competing consumption imperatives. Indeed, when participants were asked to tell us how good they were at doing all of the “sustainable actions” they had included in their free lists, 98% of research participants reported being “bad” or “very bad” at one or more of them.

Stockholm groceries carry noodles from China, avocados from Israel, candy from Thailand, and beef from Argentina. The choices are endless, and it is difficult for many to know what is best for the environment and distant communities. The science behind lifecycle analyses is incredibly complex and difficult for the average consumer to determine, given the global and opaque nature of most commodity chains. These types of analyses are certainly impossible to conduct while staring at an entire wall of buttery spreads. Swedes consume a lot of dairy and, on top of the standard categories that American grocers offer, have a wide array of additional dairy products and substitutes. Even small neighborhood groceries carry crème fraîche, a-fill, cooking crèmes, yogurts, and the myriad dairy spreads. Multiply all these product categories by three for different levels of fat content, then include organics and dairy substitutes, and you end up with a selection that can rival the offerings of even the largest American box shops. In the face of such overwhelming choice, many research participants experience ambivalence and inconsistency as the realities of their everyday life interact with their values and rationality (Halkier 2001a, b; Isenhour 2010). Given the array of products and overwhelming choices available to consumers, is it reasonable to assume that Swedes or other international consumers can, and will, take the time necessary to research and select products made with sustainable palm oil? It is true that there are now smartphone applications, wallet-sized shopping guides, and a multitude of eco-labels that can provide help to consumers in the grocery aisles. Certainly, the 2011 EU food labeling rule which required the separate listing of “vegetable oils” by vegetable origin on food packaging will help to reduce confusion for consumers concerned about palm oil deforestation (EU Parliament 2011).

Yet complex commodity chains and overwhelming choices are not the only barriers that well-intentioned Swedes face. Elsewhere I’ve outlined barriers related to: pricing structures; availability; social pressures from family and friends in a highly conformist and consumer-based culture; the amount of time it takes to research and find more environmentally friendly alternatives; and the need for convenience and time

savings (Isenhour 2010). These barriers raise questions about the ability of consumers to demand and deliver significant alternatives to the industrially-produced and forest-degrading palm oils included in many products. They also raise broader questions about the neoliberal rhetoric of consumer responsibility and the claim that rational consumers, outfitted with knowledge and reason, can change the system through their shopping behaviors. While consumers concerned about the environment and social issues have helped to spur significant growth in several sectors of “ethical”, “political” or “green” markets (Micheletti 2003; Dowler 2008; Kneafsey et al. 2008; Lyon 2010; Boström and Klintman 2011), there are very few examples of consumer boycotts that have generated enough support to cause objective damages to industry revenues (Newton et al. 2013). On the whole, more sustainable production and consumption regimes have failed to emerge.

As Newton et al. (2013: 8) argue, there is very little evidence which demonstrates the direct or indirect impacts of consumer-based interventions on deforestation prevention or biodiversity conservation efforts. Further, the potential of consumer-based movements to affect supply chains and drive forest conservation is “limited to the extent of influence of that consumer group in the total market” and may be further compromised over the long-term, given the highly dynamic nature of consumer demand and the variable nature of commodity markets.

The bounds of rationality

Whether by design or force, most states have increasingly removed state controls on production and consumption processes with the intent to let markets run their course, operating freely according to the laws of supply and demand. With this has come the devolution of responsibility away from the state. Halkier (2001a: 205) observes that, “it has become increasingly common to call upon so-called ordinary consumers to solve a range of societal and political problems. Environmental policies and food policies are no exception to this pattern”. Recently, this ideology has extended to biodiversity conservation, which increasingly relies on voluntary management by industry and consumers, regardless of their location along the commodity chain (as argued by Princen et al. 2002). Yet, the thinking goes, in order for this strategy to work, that the consumer first need to be aware of the problems. Indeed, the failure of consumers to generate sufficient demand for alternative products like sustainably produced palm oil is most often attributed to a lack of information. Drawing on theories of “reflexive modernization” and “life politics”, many authors have suggested that once consumers learn more about the “consequences of modernity” (Giddens 1991), and understand that societal and environmental risks are outpacing our institutional capacity to manage them (Beck 1992), they will become increasingly reflexive, alter their behaviors (Halkier 1999, Wilk 2004, Connolly and Prothero 2008), individualise risk, and demand

alternatives on the free market (Hobson 2002; Adams 2004; Matti 2009).

In his 1979 article, Sen traces neoliberal ideas back to Adam Smith and a time when strict government controls ruled prices and severely limited the choices of individual actors. It was out of this context that a theory emerged, which proposed that, if freed from the market controls that prohibit rational behavior, individuals would work to maximise their own self interest. Policy shifts toward liberalisation and the removal of governmental interference are thus based on the assumption that the market will ultimately “benefit everyone in their economic role as consumers” (Carrier and Miller 1999: 38). Jackson (2004: 6) argues that in order to promote sustainable consumerism under this model of the rational consumer, there would need to be an emphasis on ensuring continued economic growth, limiting policy interventions to ensure market efficiency, restructuring pricing patterns to fully reflect the social, political, and environmental costs of production, and ensuring that consumers have the most accurate information available about product benefits and risks. These conditions are unlikely without more significant governmental involvement. Yet, in reality, many governmental and non-governmental agencies have limited their involvement with environmental problems like tropical deforestation to programs designed to provide information and encourage more sustainable behaviors. As Hobson (2004: 107) would argue, this approach makes “perfect neoclassical sense” allowing governments to play a role in protecting the environment without violating the market logic of free choice. Yet my research doesn’t provide strong support for the idea that consumers are free to choose among alternatives that best match their values.

We know that humans are not the isolated and free individuals that they are assumed to be by market-based policies. In reality, people are embedded in complex situational contexts, social relations, and complicating socio-political structures. The concepts of “bounded rationality” and “satisficing” (Simon 1957) have gained popularity among institutional economists and other social scientists in the past several decades—raising questions about the “rationality” of individuals who are limited by informational, time-based, and cognitive constraints and are influenced by the institutional contexts within which they find themselves (Firth 1968; Sen 1979; Wilk 1996; Acheson 2002).

While most of the men and women participating in my research argued that consumers can, and should, take responsibility for environmental welfare, many of them also spoke frequently about the need for additional governmental intervention—to restrict the clear cutting of primary forests and to limit their choices as consumers by removing or heavily taxing those goods on shelves that do harm to human communities, the environment, and critically endangered species. Consider, for example the comments of a research participant named Stina. During our discussions about responsibility and governance, Stina looked out the window, visibly frustrated as she spoke about the overwhelming amount of time and information it takes to make a good decision about

what products and services have the smallest environmental impact. She wrung her hands in frustration as she said, “I think that today the politicians are trying to put way too much on the consumer, that we have to make all these choices but they don’t do anything to stop the companies that produce dangerous and harmful things. They tell us it is our choice but still we have a hard time to find out, and we are so affected by everyone else around us.”

These sentiments, while not politically mainstream, were expressed by a number of research participants who seemed to reject the recent shifts, under neoliberal governmentality, from consumer rights to consumer responsibility. Echoing theorists who draw on Foucault’s (1991) notions of governmentality and “responsibilization”, these men and women argue that rather than being asked to share responsibility for environmental welfare, they’re being asked to shoulder an overwhelming portion of the burden for change (Littler 2011). Many of the people who participated in the research detailed here acted very earnestly to consume more responsibly. Yet, they realise that their consumption behaviors are not solely the product of their rationality; if they were, they argue, they would be doing a lot more.

DISCUSSION AND CONCLUSION: ON POLYCENTRIC ENVIRONMENTAL GOVERNANCE

All of this is neither to deny the power of human agency nor to neglect a history of effective consumer-based advocacy (Furlough and Stridwerka 1999, Hilton and Daunton 2001, Micheletti 2003). Yet, it is important that we all understand the political implications of neoliberal sustainability. The individualisation of the responsibility for sustainability can, without careful cooperative effort from the government and industry, place an unfair and unrealistic burden on consumers, neglecting consideration of the social, political, and economic barriers that confine even those most committed to making a difference.

Maniates (2002: 47) has argued that this individualisation of responsibility is “narrowing, in dangerous ways, our ‘environmental imagination’ and undermining our capacity to react effectively to environmental threats to human well-being”. Instead, he encourages us to refocus our efforts on working cooperatively, across sectors and scales, to design new institutions more adequate in both scale and efficacy. He writes, “confronting the consumption problem demands institutional thinking that the individualisation of responsibility undermines... and calls for individuals to understand themselves as citizens in participatory democracy first, working together to change broader policy and larger social institutions” (2002:47).

Certainly, the effectiveness of actors to influence agricultural production and forest conservation depends upon their social position and relative power within the supply chain (Newton et al. 2013). Individual consumers, while potentially powerful in aggregate, can exert only *indirect* pressure down the

commodity chain, mediated by a whole string of intermediaries. Thus far, consumer interventions have not resulted in markedly more sustainable markets. Alternative palm oil products still hold a minuscule proportion of international market shares, and tropical deforestation associated with oil palm conversion continues at an alarming pace (FAO 2010).

As Friends of the Earth Director, Tony Juniper has remarked, “Consumers will be horrified to know that their weekly shop is destroying the rainforest, but it is all but impossible to avoid buying palm oil. Tigers, orangutans and countless other species are being driven to extinction while governments stand idly by and allow companies to get away with it. This problem will not be solved until there are clear rules to ensure the products found in our shops are produced in a way that does not harm communities and the environment” (FOE 2004: 1). Rules like these will require significant cooperation across scales and geopolitical boundaries. Certainly some engaged consumers can boycott products with palm oil that is not sustainably sourced, but these actions, as earnest as they might be, will likely not be enough to force adequate change.

Several recent interventions have gone further to integrate the efforts of civil, state, *and* market based actors (author emphasis). These polycentric programs hold more significant potential for biodiversity conservation in oil palm producing areas than market-based actions alone. The Indonesian government, for example, signed a cooperative agreement with Norway in 2010, which included a moratorium on new palm oil permits on 43.3 million ha of primary forests and peat lands (Austin et al. 2012). Several analyses have questioned whether this will be enough, given unprotected secondary forests, limited resources for enforcement, and the potential for the “leakage” of deforestation into other, less protected locales. However, these reports do suggest that the moratorium is “an important step for improving management of forest resources by ‘pausing’ business-as-usual and allowing time to implement reforms” (Austin et al. 2012: 1), and constitutes “conservation success”, protecting the majority of remaining peatlands which were highly vulnerable to conversion (Sloan et al. 2012: 222).

It is certainly possible, although difficult to verify, that this agreement was seen as a viable and legitimate option due to the pressures exerted by civic and consumer activists. Several scholars have correctly argued that we must move beyond polemical arguments about the relative power of human agency and social structures (Bourdieu 1999; Giddens 2001), and instead realise both the power of embedded structures to limit change and the potential of reflexive and dedicated consumers to alter these structures. While sustainable consumerism can certainly “gesture toward change” (Sassatelli 2006), and provide legitimacy for more significant action (Barnett and Soper 2005), structural economic and political reforms are necessary to complement these efforts and to result in more significant change (Humphery 2009). As Stø et al. (2008: 246) have written: “if the positive values, attitudes, knowledge and symbolic meanings that are developing among consumers should be transformed into sustainable behavior, the windows of opportunity have to be expanded”.

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NOTES

1. Pseudonyms have been used in this manuscript to protect the identity of research participants.
2. Note that while the history of consumer activism is quite long (e.g., see Furlough and Stridwerka 1999; Hilton and Dauntun 2001; Micheletti 2003), with increased alienation from the means of production, and access to significant political decision making, most consumer have very few avenues for effective action.
3. In order to access Swedish consumers who perceived environmental risk and acted on their concerns by trying to create more sustainable lifestyles, I used the concept of affinities (Roucheleau 1995) to recruit 70 individuals from the membership databases of five different environmental groups doing work related to sustainable consumerism.
4. For more specific discussions about the health, economic, and social impacts of the butter vs margarine debate, see Berg 2010; vanStuijvenberg 1969; Lawrence 2008).

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