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Gender and Dieting

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Synonyms

Gender and eating; Gender and food; Men and eating; Weight loss; Women and eating

Introduction

Conventionally, the domestic sphere has been defined as a woman's world, thus feminizing food, shopping, cooking, and eating, along with nutrition, dieting, weight loss, and health. In contrast, men have occupied the opposing side of the nature/culture, private/public, domestic/commercial divide, typically eschewing food and the body as feminine focuses rather than masculine pursuits. As a result, much research has focused on women and dieting, but studies of the intersections between men, masculinity, and food are relatively limited. Work exploring men and dieting is particularly scant.

Sex difference discourse abounds in the study of gender and dieting, as the similarities and differences between what, how, and why men and women eat (and do not eat) speak volumes about how societies construct gender. Past research, which is summarized in this entry, has sought to define masculine and feminine foods, identify gendered food preferences, and chronicle how men and women each eat. To a degree, however, these efforts operate using a stagnant definition of gender. Feminist scholarship informs the discussion of gender and dieting, reinforcing the changing, variable, relational, and social meaning of gender and how it is performed in everyday life, such as through eating and dieting.

After defining dieting, this entry discusses philosophical approaches that influence its study. The entry next provides a history of modern dieting, using the United States as an example. The entry then summarizes what motivates individuals to "go on a diet" and the gender-specific characteristics of eating and dieting, generally in a modern Western context. Dieting is also discussed in relation to obesity, particularly in the United States where rates are relatively high and virtually equal among men and women.

Defining Dieting

Though also a noun and an adjective, the act of dieting is generally defined as eating sparingly and according to prescribed rules in an effort to control weight. Dietitians and health professionals promote a "healthy diet," defining the term "diet" as the grand sum of all that an individual consumes. Weight loss diets on the other hand come in many packages. Some diets limit particular macronutrients, such as low-fat or

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low-carbohydrate diets. Some diets are developed and recommended by physicians, such as the Ornish diet, an extremely low-fat diet that researchers confirmed can not only treat but also reverse heart disease. Others are "fad" or "crash" diets, endorsing dietary changes that range from the extreme to the bizarre with potential effects ranging from disappointing to dangerous.

Individuals typically "go on a diet" to lose weight, often desiring to lose weight quickly, despite the generally accepted advice to lose no more than 2 lb per week. Health professionals nearly universally recommend a measured "lifestyle" approach, encouraging gradual weight loss by means of long-term behavior changes, such as reducing the amount of sugar-sweetened beverages one consumes or exercising for 30 min or more each day, rather than resorting to crash diets, which typically do not result in lasting weight loss. The cycle of weight loss and gain is referred to as "yo-yo" dieting and may have detrimental health effects, including emotional and psychological distress.

Furthermore, dieting is considered by many to be a gateway of sorts to eating disorders. In some individuals, constant anxiety regarding food, eating, and weight can cluster as disordered eating practices and even transform into full-blown eating disorders, such as anorexia nervosa, bulimia nervosa, and binge eating. For this reason, the high rates of dieting among women, particularly young women and girls, can be concerning. Notably, 90–95 % of those with eating disorders are female, though recent studies reveal that these widely accepted statistics might underestimate the male burden of eating disorders (Strother et al. 2012). For example, young men use anabolic steroids at approximately the same rate that young women develop anorexia or bulimia. In general, eating disorders among men are characterized as "underdiagnosed, undertreated, and misunderstood."

Philosophical Approaches to Dieting

As discussed by the contributors to *The Atkins Diet and Philosophy* (Heldke et al. 2005), a variety of philosophical approaches inform a study of dieting. While most major Western philosophers do not offer recommendations for a healthy lifestyle, Nietzsche argued that the human body and mind find their ability to function optimally – and to become and produce art – when properly fueled by a balanced diet, personalized to the individual (Irwin 2005 in Heldke et al. 2005). Notably, Nietzsche concerned himself with not only good nutrition at the individual level but also balanced eating as a form of cultural nutriment as well (Bamford 2005 in Heldke et al. 2005). In addition, Dewey, Hume, and Aristotle each endorsed forming strong habits under unimpassioned circumstances (Auxier 2005 in Heldke et al. 2005). Thus the habits of "healthy" eating created and practiced in the absence of desire will prevail when tempted, perhaps by sweet or fattening foods. Dennis (2005 in Heldke et al. 2005) applies Kant's ideas on individual decision making (autonomous, unfree, and random) to personal eating habits and food choices, revealing yet another of the many ways that philosophers have approached the topics of eating and dieting.

US History of Dieting

Beyond philosophical approaches, historical context also shapes dieting practices. While dieting histories differ across the globe, Hillel Schwartz's *Never Satisfied: A Cultural History of Diets, Fantasies and Fat* (1986) is one work that chronicles the history of dieting in the United States. As he describes the slimming methods of successive time periods, Schwartz argues that dieting and the desire to control fatness are woven into the cultural fabric of the United States, representing people's confused postindustrial desires, embodied in the contradictions of abundance and restraint, affluence and piety.

Notably, while contemporary societies conventionally view dieting as the preoccupation of women, dieters and diet authors prior to the twentieth century were more often men, defeating gluttony through masculine rationality. Schwartz

begins his history with the first American dieters, who followed the advice of health reformer Sylvester Graham, who with biblical zeal encouraged a simple and wholesome diet, emphasizing whole-wheat bread. From these origins, Schwartz traces social perceptions of body weight, which have evolved to view obesity as a threat to physical and moral health, vilifying fat as it has become further medicalized.

Schwartz's work reveals the somewhat chaotic and nonsensical history of diet regimens and the political, economic, social, and cultural factors that influence their rise and fall. Diets mirror society itself at a particular historical moment. Dieting practices also reflect a society's perceptions of gender and gender-specific characteristics, particularly ideal bodies.

Reasons for Dieting

Going on a diet often involves restricting or even "giving up" foods that one enjoys eating. Given that dieting can be an unpleasant experience physically, emotionally, and psychologically, why do individuals voluntarily diet? Independent of gender, the greatest motivating factor for going on a diet, or changing eating behavior, is to improve one's appearance, particularly in order to become more attractive to an existing mate or future romantic partners (Kiefer et al. 2005; Boyes et al. 2007). Body dissatisfaction is generally what fuels weight loss efforts, as, in many cases, one aspires to a gender-specific physical ideal.

In many Western societies, pressure to conform to a thin, ideal body weight inundates women, particularly through mass media. Notably, more women than men are dissatisfied with their bodies (De Souza and Ciclitira 2005). Particularly since the 1960s, women have aspired to a thin ideal, a culturally constructed and socially encouraged form of physical perfection (Bordo 1993). These conflicted efforts intersect with the construct of weight as a quantity under individual control, resulting in a personal responsibility to manage, limit, and restrain the body. In this way, weight in excess of the ideal is experienced as a failure and source of shame. Employing the term normative discontent, Rodin, Silberstein, and Striegel-Moore (1984) argue that society not only propagates body ideals but also normatively accepts women's discontent with their bodies when they do not meet these ideals, which are out of reach for most individuals.

While focusing on female eating, dieting, and bodies in her work, *Unbearable Weight* (1993), Susan Bordo evaluates men in *The Male Body* (1999), revealing increasing male body anxiety. Just as for women, men are held up to an equally unrealistic ideal of the lean, chiseled, and highly muscular form. Along with an increasing focus on muscular bodies, analyses of popular culture have found an increase over the past 30 years in the number of images featuring semi-naked men. In part because of this media coverage, men also experience body image concerns, which appear to have begun increasing in the latter half of the twentieth century. For example, a recurring *Psychology Today* survey documented significantly increasing male body dissatisfaction over the course of 30 years with 15 % of men experiencing body dissatisfaction in 1972 compared to 34 % in 1985 and 43 % in 1997 (Garner 1997). Furthermore, among college-aged study subjects, men and women have been found to experience similar body dissatisfaction; for example, 95 % of men in one survey were dissatisfied with some aspect of their bodies (Mishkind et al. 1986). These burgeoning concerns have drawn scholarly attention, yielding new concepts, terms, and areas of study, which explore men and their relationship to their bodies, such as the Adonis Complex and muscle dysmorphia.

Gender and Eating

While men and women may experience similar body dissatisfaction, current research demonstrates several gender-specific differences in what and how they eat. From the beginning, men and women differ physiologically in their dietary needs. For example, men typically contain more lean body mass than women and thus possess a higher metabolic rate and require

a higher energy intake. On the other hand, women may experience physiological processes that men do not, such as menstruation, pregnancy, and breastfeeding, which alter a woman's eating habits and dietary needs. Furthermore, men and women's bodies differ. To provide a single example, to meet the demands of reproduction, women's bodies contain more body fat than men. Standards recommend that women's bodies contain 20–30 % fat, compared to men's recommended 10–20 %.

Beyond physiological determinants, men and women differ in other marked ways. In their review of gender and eating, Kiefer et al. (2005) summarize social perceptions of gender-specific differences that are related to nutrition. For example, the authors summarize a general dichotomy in nutritional behavior, stating that men are perceived to eat large portions quickly, while women exercise moderation and restraint. It is considered masculine to eat with gusto, while women are expected to demonstrate their femininity as light and dainty eaters. These social perceptions are exemplified in food marketing. For example, Hungry-Man dinners, microwavable meals available in the United States and generally composed of meat and starch combinations, are overtly named, identifying the product with brawny masculinity. Some dinner packages are stamped with the phrase "1 pound of food," emphasizing the large, heavy, manly quantity of food. Conversely, Dannon Light and Fit® yogurt sells low-fat dairy products with feminine flair. With the words light and fit, this brand describes not only the yogurt but also the body characteristics that the female consumer desires to acquire through consumption habits. The purple packaging and feminine fonts confirms that yogurt is not only a food that both men and women generally consider feminine but also a product uniquely formulated for female customers.

Kiefer et al. (2005) also discuss additional social perceptions of diet and gender. When categorizing food preparation skills, men are associated with barbequing and grilling while women with cooking and baking. Specific taste preferences are even gender mapped, equating masculinity with savory and bitter flavors and femininity with mild, sweet, and light ones. The authors also summarize how men and women differ in their approach to food. From adolescence, women are more interested and more knowledgeable on nutrition topics, more likely to control their body weight, at higher risk for eating disorders, and more likely to seek out nutrition advice than men. Conversely, men experience fewer food problems but tend to be more overweight. Men typically carry more weight in the abdominal region, which tends to be visceral body fat and associated with a higher risk of disease. While men are less likely to practice health-promoting behaviors and have higher risk for certain diseases, women experience eating behavior problems more often than men. In addition, women were found more likely to eat in stressful situations and to experience strong cravings for specific sweet foods.

The composition of men and women's diets also tends to differ. Typically, men's diets include more meat, animal products, alcohol, and high-starch foods, such as potatoes and bread, while women's diets include more fruits and vegetables, cereals, and dairy products (Kiefer et al. 2005; Jensen and Holm 1999). While women snack more often than men, both men and women show preference for sweet foods, such as chocolate, ice cream, cake, and cookies; women consider sweets to be less healthy but enjoy them more than men (Kiefer et al. 2005).

Dieting Differences Between Men and Women

Just as there are differences in how men and women eat, there are also differences in how they diet. The gender-coded nature of food production, acquisition, preparation, and consumption links women to food, both materially and ideologically. Furthermore, women have historically been more likely to diet and attempt to lose weight because of social attitudes regarding women's bodies, particularly Western ideals that privilege thinness. In addition, the historically feminine roots of nutrition science may explain men's comparative lack of interest in

food, nutrition, and health. Men typically approach food with an uncomplicated and enjoyable attitude, while women often have a more ambivalent and complicated relationship with food. Independent of actual body mass index (BMI), women are less satisfied with their bodies than men and more often aspire to the beauty ideal (Kiefer et al. 2005).

In a qualitative study of six British men's attitudes regarding dieting (De Souza and Ciclitira 2005), male participants stated that men and women diet for different reasons, acknowledging the increased pressure women are under to be thin but also discussing the different pressure experienced by gay men. While heterosexual men have, until relatively recently, experienced a lesser pressure to conform to a lean, muscular ideal, such a physical form has been longer embraced in the gay community. Such physical preferences result in higher rates of dieting and increased acceptance of dieting in the gay community compared to heterosexual men, as well as higher rates of eating disorders, such as body dysmorphic disorder and muscle dysmorphia (Strother et al. 2012).

Among young people, women typically desire to lose weight, while young men aspire to gain weight (Page and Fox 1998), a trend that also holds true for older adults (De Souza and Ciclitira 2005). A 2006 study of Midwestern college students found gender differences in dieting practices, as well as eating habits and nutrition beliefs (Davy et al. 2006). Notably, a significantly larger percentage of women had tried diets, such as Weight Watchers (6.6 % women vs. 1.0 % men), low-fat diets (19.3 % vs. 7.6 %), low-carbohydrate diets (15.5 % vs. 6.7 %), and vegetarian diets (4.4 % vs. 0 %). In addition, more men reported having never gone on a diet (79.1 % vs. 65.6 %). Some posit that when men do diet, they are often more successful in their attempts than women because they have not dieted multiple times throughout life, which appears to be a health protective act.

Masculinity, Eating, and Dieting

Gendered expectations may play a role in the differences between how men and women eat and diet. It is argued that hegemonic masculinity shapes male role expectations, which may affect men's views and actions with regard to health, eating, exercise, and weight management (Gough 2007). These hegemonic constructions of male behavior favor strength, independence, and risk-taking, in effect disqualifying the masculinity of health-promoting behaviors, such as eating fruits and vegetables. Eating without anxiety for weight gain or health effects (generally, eating in a health-defeating way) is also considered masculine, while concern for health and practicing healthy behaviors is perceived as feminine. Characteristics, such as ample portions, and specific foods, such as red meat, are routinely framed as masculine. Meat in particular is broadly associated across many cultures with qualities such as strength, power, and virility and is thus considered a quintessentially masculine food that also serves as a symbol of masculinity (Jensen and Holm 1999).

In her analysis, Bentley (2005 in Heldke et al. 2005) discusses how low-carbohydrate diets, such as the Atkins and South Beach diets, prominently include and promote red meat as a "diet" food, thus masculinizing the act of dieting. Unlike low-fat diets, which promote foods generally considered feminine – such as fruits and vegetables, whole grains, and reduced-fat dairy products – low-carbohydrate diets endorse foods considered manly in American culture, including meat and eggs. In the same way, however, Atkins also made it more socially acceptable for women to eat meat, especially in public places. Bentley also notes, however, that while the high cost of protein-rich foods typically makes low-carbohydrate eating a diet of the financially comfortable, low-carbohydrate diets also include a variety of lower class foods, such as pork rinds, revealing yet another dimension of low-carbohydrate diets.

The once extremely popular Atkins diet provides one example of men forging into the world of dieting without inhibition. Unlike women who nearly universally diet to lose weight, however, equal numbers of men aspire to lose weight as those who seek to gain weight in order to become more muscular (De Souza and Ciclitira 2005).

Furthermore, men are more likely to manage weight by exercising rather than dieting.

The topic of men and dieting is an area worthy of further research. In their introduction to a special 2005 issue of *Food and Foodways*, Alice Julier and Laura Lindenfeld discuss the dually burgeoning fields of food studies and masculinity studies, identifying the many opportunities for these disciplines to speak to one another (Julier and Lindenfeld 2005). The articles featured in this special issue provide a robust overview and jumping-off point for such pursuits, though the editors acknowledge that the articles focus on affluent nations and socioeconomic backgrounds. While additional research in food and masculinity is encouraged generally, the editors specifically promote further studies of men and food "in ways that centralize race, nationality, migration, class, and sexuality in a global capitalist system."

Gender and Obesity

In the United States and much of the world, obesity is a leading health concern. In 2009–2010, obesity prevalence for men (35.5 %) and women (35.8 %) in the United States was virtually equal (Ogden et al. 2012). What is concerning to some, however, is that while the obesity prevalence among women remained relatively constant over the course of a 10-year period, men's obesity increased from 27.5 % in 1999–2000 to 35.5 % in 2009–2010 (Ogden et al. 2012). It is within this context that discussions of gender and dieting occur. While the perceptions, ideals, eating behaviors, and dieting practices of men and women differ, current weight statuses, at least in the United States, are quite similar.

As a problem of excess body fat, the solution to obesity is often framed within the context of weight loss by means of reducing the amount of energy consumed and increasing the amount of energy expended. Dieting, whether following the guidance of a physician or adhering to the latest "fad diet," is a popular method for weight loss. While data demonstrates that successful weight loss is difficult and rare, significant numbers of Americans are trying to lose weight. Of those at "normal" weight, 10 % of men and 29 % of women are dieting, compared to those who are overweight (36 % of men, 60 % of women) and obese (63 % of men, 70 % of women) (Bish et al. 2005).

However these efforts are pursued, gender remains a powerful factor in dieting and eating behavior that is worthy of additional study, particular among men.

Summary

Dieting is generally defined as eating sparingly and according to prescribed rules in an effort to control weight. Just as men and women differ in their dietary needs and eating behaviors, they diverge in their approaches to weight loss. Both men and women are motivated by the desire to align their physical selves with culturally constructed body ideals, most often to appear more attractive. Dieting, however, is generally feminized. Furthermore, weight loss is the customary recommendation for combating obesity, rates of which are very similar among both men and women in the United States. In general, more research is needed in the area of men and dieting, a topic located at a unique juncture between food studies and gender studies.

Cross-References

- ▶ Eating Disorders and Disturbed Eating
- ▶ Ethical Assessment of Dieting, Weight Loss, and Weight Cycling
- ▶ Gluttony
- ▶ Medicalization of Eating and Feeding
- ▶ Obesity and Consumer Choice
- ▶ Obesity and Responsibility

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Gender Inequality and Food Security

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Synonyms

Agricultural development; Equality; Feminism; Hunger; International development; Right to food

Introduction

Chronic hunger and malnutrition are pervasive issues for large populations across the globe. At last calculation, the Food and Agriculture Organization of the United Nations estimated that 842 million people are not able to meet their daily dietary needs, the vast majority of whom live in developing countries (FAO et al. 2013). The international development community usually measures hunger and undernutrition in terms of food security, which is determined by assessing four indicators related to food and nourishment: availability, access, utilization, and stability. Food security is not achieved until a household can meet all four of these requirements in terms of its food intake.

In recent years, gender has been identified as an integral part of food security interventions for a number of reasons. Women and girls are among the most vulnerable to hunger and malnutrition, and at the same time, they are assuming a greater role in global agricultural production (FAO et al. 2013; FAO 2011). Yet women, including female farmers, face discrimination due to culturally and

socially constructed stereotypes of gender roles, impeding their ability to farm as effectively and productively as their male counterparts. The challenge for governments and international development workers thus becomes protecting and promoting women's nutrition while simultaneously empowering women to produce higher agricultural yields for both household consumption and economic gain.

Due to the high concentration of food insecurity and gender inequality in poor, developing countries, most large-scale interventions (e.g., Millennium Development Goals) are targeted at these regions, particularly Asia and sub-Saharan Africa. Although food insecurity and gender inequality affect populations everywhere, this entry will similarly focus on the context of the developing world.

Background

The formal definition of food security, which emerged from the 1996 World Food Summit, is as follows: "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life" (FAO 1996). Although the experience of food (in)security is often subjective – varying between households, countries, and cultural contexts – the international development community measures food security in terms of availability, access, utilization, and stability. Generally, a household is considered food secure if food is *available* to it in the region, it has physical and/or financial *access* to the food that is available, the food is culturally appropriate and *utilized* within the household so that all members' dietary needs are met, and all three of the above conditions are *stable* over time.

Women are essential to securing the *availability* and *access* components of food security in their households and communities: on average, they comprise 43 % of the agricultural workforce in developing countries (FAO 2011). However, women's potential agricultural yields are stunted by socially and culturally constructed gender roles – assumptions about men and women that dictate allocation of assets and obligations (FAO 2011). Fortunately, because stereotypes about gender are socially constructed, it is possible to reshape gender roles over time through collective action, public policy, and a number of other cultural influences. The Food and Agriculture Organization of the United Nations (FAO) estimates that if women are given the same access to agricultural production resources as men, their yields would increase by 20–30 %, in turn increasing agricultural output in developing countries by 2.5–4 % and reducing the amount of hungry people in the world by 12–17 % (FAO 2011).

Women are also essential to the *utilization* component of food security. In addition to being responsible for preparing meals, women are the primary caretakers of children, as well as family members who are elderly or chronically ill. Numerous studies have shown that in comparison to men, women spend a larger percentage of income on food (Akanji 2013). Consequently, in households where women control the budget, family members have better nutrition levels and childhood survival rates increase by 20 % (UNGA 2012). This higher quality of care that women provide, particularly to children, thus improves the health of future generations (FAO et al. 2010).

Given these figures, it is clear that empowering women with the resources they need to increase agricultural production and reshaping gender roles to give women more bargaining power within the household will improve global food security.

Gender Inequality in Agriculture

Gender inequality in the agricultural sector manifests in several ways. One of the greatest disparities between male and female farmers is land ownership. Recent figures from the FAO indicate that women own, on average, only 15 % of land in developing countries, falling as low as 5 % in Oceania, North Africa, and West Asia (FAO 2011). This significant inequality in property rights creates barriers for women not only in

terms of agricultural production but also when attempting to obtain loans – a process that often requires formal proof of land ownership for collateral. Without the security of land tenure, women are also less likely to experiment with innovative farming methods and technologies (a problem compounded by their inability to access lending services). In the absence of formal ownership and inheritance rights, women are also less likely to act as stewards of their land by taking actions to improve soil fertility and biodiversity to preserve the soil for future farming (IFAD 2012).

Gender inequality extends from subsistence farming to large-scale commercial farming as well. Women's access to tools and resources necessary for expansion into commercial agriculture is limited, including access to improved seeds, fertilizers, pesticides, and other agricultural inputs, as well as agricultural extension services (e.g., training and farmer field schools) and commercial markets. These inputs are needed to increase yield and minimize labor on large plots of land, and extension services ensure that farmers access new technology and farming methods to improve efficiency. Men are typically the beneficiaries of these resources and services, leaving women dependent on rainfed agriculture – a slower, more labor-intensive farming method that is also more vulnerable to climate shocks (IFAD 2012).

Women are also limited by their education levels, which are significantly lower than men's in nearly all developing countries (FAO 2011). In poorer households, girls are often removed from school earlier than boys when parents cannot afford school fees, usually because gender stereotypes dictate that education is more valuable for boys than girls. In countries where women face discrimination in their reproductive rights, they are often expected to marry and begin bearing children at an early age, suspending their formal education as a result. Education levels have a positive correlation with agricultural production, income, and nutrition in a household (FAO 2011). Higher levels of formal education allow women to seek additional economic opportunities outside the agricultural sphere, further contributing to household income and strengthening women's bargaining power within the family unit. Current research shows that improving women's education is in fact the single-most influential factor in improving a household's food security (UNGA 2012).

One of the greatest constraints on women's farm production is time poverty. In addition to agricultural work, women are also responsible for household duties including caregiving for children, elderly, and sick members of the family, fetching wood and water, preparing and serving meals, and a number of other domestic tasks. Women often assume these roles in part because of sociocultural expectations about gender and also due to the fact that they have less economic independence and bargaining power within the family. This unpaid domestic work is commonly referred to as the "care economy," and it requires a substantial amount of women's time, especially in developing countries where social programs to assist in child and healthcare are largely absent. Time-use surveys indicate that when the care economy is incorporated into time measurement, women work considerably longer hours than men, shouldering up to 90 % of the time spent on food preparation (FAO 2011).

Feminization of Agriculture

The abovementioned gender inequalities in the agricultural sector compound the threat of food insecurity due to a growing trend called the "feminization of agriculture." As developing countries become more industrialized, the agricultural sector becomes highly concentrated, commercialized, and export-driven. What was once a collection of small-scale family farms shifts to large-scale, export-driven farming operations (DeSchutter 2013). A mass rural–urban migration usually accompanies this transition as rural agricultural workers trek to urban centers to seek work as waged laborers on commercial farms or to find employment in other sectors. The overwhelming majority of these rural–urban migrants are men, in part because of gender expectations and also because they have the education levels

required to seek diversified employment opportunities, as well as fewer time constraints. Women are left in rural areas tending to the household and the family farm, triggering a pronounced increase in the percentage of female agricultural workers in comparison to men (Agarwal 2011).

In addition to assuming the responsibilities of subsistence farming from their male counterparts, some women also begin farming to produce food for markets (DeSchutter 2013). Here, the limitations women face in terms of land ownership, access to inputs, education, and time constraints can have significant impacts on farm productivity. Without the collateral needed to secure loans, women cannot purchase the inputs needed to increase agricultural yields. Raising livestock, including chickens and dairy animals, presents another opportunity for women to gain capital in agricultural markets. Women make up approximately two thirds of livestock keepers, and the practice offers an appealing alternative mode of income generation in countries where women's land rights are restricted (FAO 2011). However, much like traditional land-based agricultural activities, time required of the care economy limits women's ability to manage the same quantities of livestock as men. Their working hours are restricted, as is their ability to travel to markets to sell goods. As their farm and livestock enterprises scale up, women are often forced to relinquish control of operations to men, who are more likely to have the time and financial resources required to manage a larger business. If women are to remain essential to agricultural production, these obstacles must be removed to ensure they reach production levels required of their households, communities, and regional markets.

The feminization of agriculture also occurs outside the realm of subsistence and small-scale farming. In comparison to men, only a small portion of women in developing countries seek employment for wage, but those who do are more likely to work on farms than in any other sector. In Asia and sub-Saharan Africa, between 60 % and 70 % of female wage earners work in the agricultural sector (FAO 2011). As countries develop and agriculture becomes more commercialized, women will find more opportunities to work for wages on large-scale industrial farms (DeSchutter 2013). Here, they face a new host of issues including widespread discrimination among waged agricultural workers, hazardous working conditions, and exploitation due to their minimal bargaining power. Without the education needed to pursue other employment opportunities, women are left with few options in the labor market, and in the agricultural sector, they are often forced to settle for low-paying temporary or seasonal work (DeSchutter 2013). Gender stereotypes can also prevent women from obtaining higher-paying jobs along the supply chain, stifling their opportunities to advance in their careers (FAO 2011).

Gender Empowerment in Agriculture

Because of these gendered restrictions, women are circumscribed to low-productivity agriculture and their yields are consistently lower than men's. However, a number of studies have shown that this discrepancy in output levels is entirely attributable to women's restricted access to land, inputs, technology, extension services and labor, as well as time restraints due to the care economy (Agarwal 2011). Some studies suggest that without these gendered constraints, female farmers would produce *higher* yields than men (Agarwal 2011). Using data from the OECD's Social Institutions and Gender Index, the FAO found that lower levels of gender inequality correlate positively with higher average cereal yields (FAO 2011).

As the proportion of women in the agricultural sector continues to rise, their habitually lower production levels have serious implications for the future of food availability in developing countries. Eliminating gender inequality and empowering female farmers thus becomes imperative to increasing agricultural outputs and achieving food security in these areas.

Empowering women in the agricultural sector will require a number of institutional, social, and cultural changes, perhaps the most important arising from the reinformed perception of

women's capabilities and responsibilities in the agricultural sector. In countries where they are viewed more as helpers than farmers, women face more difficulty in accessing the resources and services needed to improve their yields (Agarwal 2011). This type of cultural shift can be challenging to execute, but with the help of gender-specific farm policies and programs, as well as coverage in the media, stereotypes and misperceptions of gender can be challenged and overcome (Agarwal 2011).

First, state and local governments need to amend land ownership and inheritance rights to allow women to purchase and inherit property in the same manner as men. In many developing countries, the formal rights to land titles within a household are customarily given to the men. Traditional patterns of land inheritance similarly benefit men over women; throughout Asia, Latin America, and sub-Saharan Africa, parents favor sons over daughters when passing down land, while local chiefs and community leaders typically allocate land to men under the assumption that it will be shared with female family members (FAO 2011). Even in countries where women are given the same legal rights to inheritance and land ownership, they often face an uphill battle in exercising these rights due to flawed legal structures and persistent gender bias toward men (Agarwal 2011). The change will need to come first within national land rights legislation – ensuring equal ownership rights to men and women – followed by reform in legal implementation and customary law. The latter can be achieved with the help of community leaders and collective action by women themselves (FAO 2011). Educating both women and men about their land rights will be imperative to sustaining these changes, a task which both governments and NGOs can undertake.

Second, women need to be given equal access to farm inputs, extension services, and training. In most cases, modern farming technologies (e.g., improved seed varieties and fertilizers and the knowledge of how to properly plant and apply them) are disseminated by farm extension agents – public sector employees who make on-site visits to farms or farmer cooperatives to educate agricultural workers. The majority of extension agents are male, which poses several problems for female farmers. In some cultures, it is considered inappropriate or taboo for a male to meet socially with a female, especially if she is unmarried or widowed (FAO 2011). Male extension workers are also less aware of the constraints and knowledge gaps specific to female farmers and therefore may not address those issues. Because men have fewer domestic obligations, they are usually the household members who meet with agricultural extension agents, under the assumption that they will then pass that information on to the women, which is not always the case (UNGA 2012). In order to reach more women through extension services, governments and NGOs should make a concerted effort to hire more female extension workers and to train male extension workers on the specific needs of female farmers (FAO 2011).

Third, research and development (R&D) on improved agricultural technologies with respect to women's needs will contribute to higher output levels on female-tended farms and improved household food security. The first step in this process is identifying women's priorities and constraints. For example, women are generally limited by the labor intensity of certain crops, both because they typically cannot hire additional labor and because their own on-farm time is limited. Developing farming systems or mechanizations that minimize farm labor can increase women's productivity tremendously (Meinzen-Dick et al. 2010). Women also have different priorities in terms of the types of crops they choose to produce. Whereas men are often responsible for high-input, high-yield cereal crops that meet the market demands of capitalized agriculture, women are more concerned with the ease of preparation, nutritional content, and taste of the food they harvest (Meinzen-Dick et al. 2010). Most R&D efforts are gender-biased toward men, as the primary objective is increasing yields of commercial crops. For agricultural research to benefit women, it is imperative that researchers consult with female farmers to determine the gender-specific needs that can guide future research (Meinzen-Dick et al. 2010).

Women farmers are also valuable sources of climate- and culture-specific agricultural knowledge that researchers may otherwise never uncover (Meinzen-Dick et al. 2010).

Fourth, making capital available to women, typically through microfinance programs, will provide them with the financial resources they need to enter into market-based agriculture or pursue other business endeavors. Formal financial services (e.g., savings, loans, and credit) are usually inaccessible to the poorest populations in developing countries and even more so for women (UNDESA 2009). Yet access to credit and savings is essential for women's empowerment – it affords them bargaining power within the household and can serve as a contingency fund during periods of food insecurity. Microfinance programs are usually administered by NGOs, offering small-scale loans to poorer clients. Many are targeted specifically at women, who have a higher rate of loan repayment than men (UNDESA 2009). These lending programs are only effective, however, when accompanied by financial literacy education for women, teaching them how to make the best long-term investments (DeSchutter 2013). Research has shown that in some cases, male household members take advantage of women's preferred status as loan recipients and use their wives to obtain loans for their own purposes (DeSchutter 2013). Therefore, in communities where female-targeted microfinance programs are implemented, male household members should similarly receive sensitization training on the importance of supporting and allowing women to control loans (DeSchutter 2013).

Finally, promoting female farming cooperatives will give women more leverage to apply for loans, pool resources to obtain agricultural inputs, and use collective action to affect gender-equal programs and policies. Farming co-ops can take many forms. Some are social groups that meet for educational purposes, often in the company of an agricultural extension agent who can teach co-op members about effective farming tools and methods. Others function as a group farming system, in which a collection of individual female farmers works together to produce crops for agricultural markets. The benefits of group farming are extensive: women can consolidate finances to buy input and equipment for the collective, increase production and profits by reducing time and costs, access formal loans and credit with greater ease, spread the risk associated with climate and price fluctuation over a larger group, and increase bargaining power with government agencies (Agarwal 2011; DeSchutter 2013).

Of course, this is not a comprehensive list of suggestions for empowering women as agricultural workers and should not be treated as such. As mentioned above, formal education and redistribution of tasks in the care economy are also necessary for women to garner more bargaining power in the household. Moreover, all of the suggested reforms must be met with a shift in the cultural perception of gender roles that no longer discriminates against female members of society.

Ethical Issues in the Feminization of Agriculture

Although researchers and international development professionals unanimously agree that empowering women and eliminating gender inequality in the agricultural sector will improve global food security, these sociocultural transformations do not come without additional challenges. In a recent paper, the UN Special Rapporteur on the Right to Food Olivier de Schutter highlights the dichotomies that arise from the feminization of agriculture, both on the household subsistence level and in commercial agriculture (2013).

First, while many of the proposed programs and policy changes outlined in the previous section are intended to make homestead farming more efficient and productive for women, they also run the risk of perpetuating the gender roles that have kept women in the domestic sphere up to this point (DeSchutter 2013). Many of these support programs do little to expand the choices available to women outside the home; instead, the programs make women's current farming

operations more productive while the onus of household food security and the care economy remains on the female head of household.

Some of the suggested interventions, notably microfinance and lending programs, do have the goal of "emancipating" women from subsistence farming to participate in market-based agricultural operations (DeSchutter 2013). Unfortunately, when women leave the home to work in a capitalized system of farming, they may simply be transitioning into a new cycle of exploitation in which they are beholden to long hours and low wages and sometimes enlisting their children to help make output quotas for commission (DeSchutter 2013).

DeSchutter identifies opportunity as the key force behind female empowerment. Neither subsistence farming nor commercial agriculture and wage labor should be the default option for women farmers. They should have the freedom, both in legal and cultural respects, to make a choice about their futures, whether on or off the homestead (2013).

Summary

On average, women comprise 43 % of the agricultural workforce in developing countries, making them essential to global food production and food security. However, socioculturally constructed gender roles prevent women from reaching their full potential as producers. Gender stereotypes limit women's access to the tools, technology, knowledge, financial resources, and time required of market-based farming. As the proportion of women in the agricultural sector increases in comparison to men, a number of ethical questions arise about how women should be supported in both subsistence and commercialized agriculture.

Cross-References

- ▶ Access to land and the right to food
- ▶ Africa, Food, and Agriculture
- ▶ Agricultural Cooperatives
- ▶ Food and Agriculture in Bangladesh
- ▶ Food Security
- ▶ Gender Inequality and Food Security
- ▶ Human Rights and Food
- ▶ Sub-Saharan African Agriculture

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Gender Norms and Food Behavior

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Synonyms

Body; Cooking; Dieting; Eating; Economic; Farming; Fat; Femininity; Masculinity; Nutrition; Obesity; Sustainability

Introduction

Hilde Lindemann (2000) points out that philosophical theories are often based on a flawed picture of society in which the private sphere is utterly isolated from the public sphere – a distinction going back to John Stuart Mill – and what is done in the private sphere is often erroneously considered no fit subject for issues of ethics or justice, certainly not of politics. A classic example is that caregiving by family and friends is seen as a matter of personal obligation but not of justice or politics (feminist treatments of dependency work critique this stance). Like caregiving, many food behaviors occur within this private sphere as people cook meals, grow vegetables in small gardens for supplementation or subsistence, consume meals, or keep food animals for subsistence use or informal trading of eggs and milk. Such "private" food behaviors occur in every society, in both urban and rural settings in the global north and the global south, and are often performed by women. By comparison, food production and preparation which occur within the public sphere – on farms, in restaurants, and so forth – are far more visible and more easily counted and acknowledged in economic calculations (Waring 2004).

Food behaviors, both private and public, are deeply affected by gender norms concerning both masculinity and femininity. In some ways, food-centered activities constitute gender relations and identities across cultures (Counihan and Kaplan 1998). This entry provides a non-exhaustive overview of how gender norms bear on food behaviors broadly construed, focusing on three categories: food production, food preparation, and food consumption.

Food Production

Food production can differ widely in various economic settings within and between nations. Gender norms governing control and ownership of business, as well as roles in policy-making, routinely mean that even women who are engaged in agricultural work in the public sphere have little say in its conduct. Those engaged in agricultural work in the private sphere, through the use of home gardens for supplementation or subsistence, find their work to be invisible to standard economic measures (Waring 2004).

Carolyn Sachs warns against overgeneralization about rural women involved in agricultural work, noting that they are diverse in race, class, ethnicity, and sexuality. Yet, she argues rural women do suffer from institutional subordination in agricultural work around the world. State agricultural policies regarding domestic and foreign programs have typically supported what she describes as "patriarchal family farms" through extension loans, government loans, development aid, and marketing policies (Sachs 1996). These farms, for good or ill, have been disrupted as large-scale industrial agriculture increasingly provides for the food production needs of domestic and global markets. Sachs argues that this will not necessarily benefit women, however, because – as with so many corporate structures – few women hold positions of power in agro-industries (those who do are likely to be those whose race and class already provide them privilege): "Rather, such systems tend to exacerbate class, ethnic, and racial differences and privileges in rural areas and often rely heavily on the cheap labor of working-class people, especially racial and ethnic minorities" (Sachs 1996).

Such commercial work, being conducted in the public sphere, at least receives economic valuation even as it tends to benefit men more than women and some women more than others. Supplemental food production – backyard vegetable gardens or the keeping of chickens for eggs – and subsistence farming are utterly invisible to traditional economic measures (Waring 2004). As Sachs (1996) notes, studies on sub-Saharan Africa report that women produce roughly 80 % of the food and provide household water by transporting it from pumps, wells, or waterways. Though critical to family welfare, subsistence farming remains invisible economic-based policy measures. Since gender norms dictate that "private" food production be done overwhelmingly by women – carrying water in particular is seen as work for women and girls – their role in food production is often simply irrelevant to those in power even as it is deeply relevant to their families. Meena Bigli attests that 70–80 % of the Pacific Rim's working women work in the agricultural sector, yet many countries continue to focus on men as planners and decision-makers for agricultural policy and problem-solving, nor are women targeted for capacity building and education in the sector (Report of Women Major Group 2007). Similarly, Signora Maria Francisca de Belo Assis noted that rural women farmers in developing nations such as her own Timor-Leste need to compete in the market economy but do not have adequate information and are not included in decision-making. She argues that this is necessary in order to make rural and sustainable development a reality (Report of Women Major Group 2007).

In the United States, there is a movement to bring more women into agricultural work as business owners, especially in the sustainable food industry. However, even this is fraught with gender norms. Costa (2010) carefully notes that women have long been underrepresented in the public sphere with respect to agriculture despite the work they do at home and outside the home with respect to food production, planning, and preparation. Women indeed do a great deal of work on food production, both as farmers and advocates, comprising 61.5 % of the employees and 60 % of the executive directors of the top 15 American nonprofits focusing on sustainable agricultural issues. And yet, it is gender norms that drive the success of women in this field: by way of explanation, Costa (2010) notes that women are mothers of children, are nurturers of health, and have the largest impact and concern when it comes to what they feed themselves, their families, and the wider community.

Sustainability has come to be seen as an appropriate women's issue, as has the quality of crops and meats. While this increases women's involvement in agricultural policy, it too is based on gender norms. As Marilyn Frye (1983) points out, women's anger and passionate concern are most likely to be given uptake when it falls within an appropriate, gender normative sphere of concern. With respect to agriculture, concerns over food safety for women's families, and the condition of the world left behind to their descendants, are just such concerns.

Gender norms often keep women from economically and politically powerful positions in the public sphere of food production despite their work in both public and private food production. Exceptions most often occur when the ways in which women seek power over food production line up nicely with gender norms about their proper role in caring for others.

Food Preparation

Food preparation, like food production, is structured by the flawed private-public divide. Though reinforcing that divide is problematic, it is useful to point out how that divide plays a role in the way that both masculine and feminine gender norms shape food preparation behaviors. On the private side, we have home cooking and service cooking by volunteers working in community settings such as churches or food charities. On the public side, we have commercial cooking performed in restaurants, hotels, and schools. Gender norms affect food preparation.

Home cooking is a loaded activity in Western cultures and around the world, often heavily

gendered (Reiheld 2008). It is often considered women's work and feminized according to gender norms, seen as properly the duty of women; where home cooking is acceptable for men, it tends to be masculinized or is seen as a "favor" or supererogatory. An influential review paper of research on gendered division of household labor in America found that nearly two-thirds of total housework hours are spent cooking and cleaning, work which continues to be – and to be seen as – much more often the purview of women than men (Bianchi et al. 2000). Both cooking and grocery shopping show similar patterns in many studies and many developed countries (Lippe et al. 2011), including the Anglo-heritage countries such as Australia, the United Kingdom, and the United States (Dixey 1996; Breen and Cooke 2005). In particular, highly educated and married women in masculine cultures do less paid work and more housework such as cooking than do their counterparts in more feminine cultures (Lippe et al. 2011).

This gendering of cooking as women's work begins early in American culture, as the division of children's chores shows: in families with both boy and girl children, girls are more likely to be assigned cooking and cleaning chores while boys are more likely to be assigned maintenance chores such as mowing the lawn or repairing things or taking out the trash. Both children's and adult's divisions of household work in the United States follow gender lines, and both children and adults generally do not question such stereotypical divisions (Schuette and Killen 2009), no less so with cooking.

This goes beyond Europe and Anglo-heritage countries. In 1974, O'Laughlin (Furst 1997) reported that in many non-Western societies, men did not do the cooking and had never learned to cook because doing women's work was considered shameful. In one society, cooking was defined explicitly as women's work, and the pots as women's tools, so much so that men were looked upon as no longer men if they used the cooking pots.

However, in Europe and the Anglo-heritage countries, there are certain kinds of cooking that are gendered masculine. One of these is barbecuing outdoors on a grill or an open flame, especially when cooking heavy meats such as steak. In America, men often take great pride in being good at the grill, as depicted in numerous television ads, but are rarely depicted doing the regular cooking which tends to be gendered feminine.

Regardless of how often gender norms dictate that men should occasionally cook, gender norms also still hold women responsible for the nutritional status of their household. However, doing so ignores how deeply access to food, cooking skills, and cooking time are situated in class, culture, race, and gender. Nowhere is this more apparent than in public health campaigns over obesity and childhood nutrition. Breastfeeding campaigns by the Department of Health and Human Services in the United States, for instance, use slogans such as "breast is best" and, more recently, "babies were born to be breastfed." As Rebecca Kukla has pointed out, the strategy of such campaigns focuses on women as the only relevant moral agent who needs to be convinced; if only such campaigns could reach women, it is assumed they would change their behaviors. Yet, women are overwhelmingly aware of the evidence that babies are healthier when breastfed. Kukla points out that this underlying assumption – that women simply haven't been convinced yet – ignores the vast array of constraints on women's lived experience that restricts their ability to breast-feed, including but not limited to lactation difficulties, workplaces which do not allow adequate maternity leave or facilities to pump breast milk, social stigma against public breast-feeding, and lack of safe spaces in which to breastfeed. Kukla argues that "there are many American women, especially women from the socially vulnerable groups least likely to breastfeed, for whom breastfeeding is not in fact a livable choice" for reasons that go beyond barriers to the very culture that is in fact asking women to put their babies' nutritional needs first (2006). This has potential bearing on UNICEF's initiatives to increase breastfeeding globally, some of which attempt to involve those around mothers rather than aiming squarely at mothers.

Breastfeeding is not the only way in which women are held responsible for the family's nutritional status, however, especially in the context of rising obesity rates in both the global North and South. A quick survey of articles published on children's nutrition shows that those addressing mothers consider food preparation (and the mother's own food consumption) as well as maternal income, whereas those considering fathers solely or as well as mothers focus on paternal income's impact on the nutritional status of children. In the United States, women still make the primary healthcare decisions in two-thirds of American households and are primarily responsible (in two-parent heterosexual marriages) for making the kids' doctor appointments and conveying them to and from appointments. This responsibility for family health in general is consistent with what Joan Wolf (2007) calls an ideology of "total motherhood" in which mothers are held responsible for any harm that may befall their children. This extends to nutrition, at which point the family becomes the site of intervention with women responsible for that intervention (Lupton 2013), and not only in the United States. In the 1990s, children in Nepal faced widespread vitamin-A deficiency which can have serious health consequences. Health experts recruited grandmothers – who had time to get the pills out and authority to make sure they were taken – to distribute nutritional supplements. As of 2005, 48,000 grandmothers distributed vitamin A to 3.5 million Nepalese children. Development agencies often give resources or money for children's health to women in the family, knowing or suspecting that men are more likely to spend it on themselves (Kluger 2010). Dixey (1996), writing about nutritional programs designed to teach healthy cooking and eating skills in the face of rising obesity, cautions against targeting only women and girls with opportunities to learn how to provide healthy food lest cooking skills come to be seen as part of an attempt to re-create traditional gender roles.

Such attention to women as responsible for family health has obvious pragmatic benefits, since dominant gender norms mean they are best situated to improve family health. As with breastfeeding, however, this general responsibility ignores the situatedness of women's decisions about food acquisition and preparation. Aphramor and Gingras (2009) note that dieticians who advise patients and caregivers on improved eating focus overwhelmingly on "eating plans" and individual agency over them when assisting women in combatting obesity for themselves and their families. This individualistic approach, they say, conserves a "limited, consumerist, and decontextualized understanding of health and fatness in which issues of power, inequity, and gender remain peripheral and occluded," creating a "theoretical desert" with little real hope of achieving health. As an example, we might consider the limited access many Americans have to fresh fruit and vegetables, as exemplified in the US Department of Agriculture's conception, and maps of "food deserts," areas in which access to food is restricted to prepared food and very little fresh food. Abigail Saguy (2013) notes that our assessment of women as food preparers in the private setting is deeply embedded in race and class. She gives the example of Katherine, a young anorexic white woman whose mother drops everything to whip up a three-course meal if Katherine says she is hungry, an example we often view approvingly. However, by contrast, a poor black single mother may lose custody of her son as he gains weight despite her best efforts to take him to the Y and ensure he eats healthy food whenever she can watch him given her time-consuming minimum wage job. As Saguy notes, the white family is considered to have a daughter with a terrible illness while the black family is treated as having a son who suffers from neglect (Saguy 2013). Such assessments are insensitive to class concerns and race issues, especially given the vast disparities in time and resources. Lack of attention to issues of class or geography inappropriately places blame for unhealthy food preparation on individuals who, because of gender norms governing food preparation, are overwhelmingly women around the world.

It is not only nutritional status for which women are held responsible when it is assumed they cook but the very nature of the family. Anglo-heritage nations have long – but not

always – depicted cooking, and housework more generally, as a source of feminine virtue and a duty to family (Reiheld 2008). Recent rhetoric over family values in the United States has urged families to have more sit-down meals, on both public health and moral grounds. With respect to the latter, it is claimed that families are more functional, and a flourishing and good life more attainable, when family members have dedicated time together without the interruption of television, telephone, or portable computing devices. The burdens of preparing sit-down meals fall on women, whom we have seen are generally held responsible for meals the world over. Indeed, a large survey of British women found that they had adopted the norm that "the proper meal" confirms the family as a "proper family" and is, by definition, made by the wife (Furst 1997). In such ways are the norms of domestic femininity often constituted by food behaviors.

Reinforcing the importance of the private-public divide for how cooking is evaluated, Furst notes that cooking may be understood as an expression of "a rationality of the gift," in which the production of use-values in the home is seen as a gift to loved ones. It should be noted that this notion of cooking as a gift makes it a private matter nearly immune from critiques of fairness which might be levied on an exchange of goods or services that takes place in the public sphere. By contrast, Furst presents "the rationality of the commodity" which governs production in the market. Since food production in the home, still largely performed by women due to gender norms, has no market valuation for reasons discussed by Waring (2004), this form of "women's work" has far less social value than cooking performed in the public sphere which is visible to markets. That work, while sometimes performed by women, has high-status variants in the form of professional chefs. Chefs and heads of staff in commercial kitchens remain overwhelmingly men. As Furst puts it, when men do the cooking, it is mainly public cooking, the food of money and prestige. It is important to add to this, however, the above-noted fact that when men do home cooking in the private sphere, it is more often than not highly masculinized with fire, meat, and so forth.

Gender norms strongly affect food preparation behaviors, in ways ranging from division of this labor to holding women responsible for the health of their families and whether the family is a good one. Gender norms also relegate women's food preparation predominantly to the private sphere, while men's food preparation is masculinized, often higher status, and generally in the public sphere.

Food Consumption

Food consumption behaviors are no less governed by gender norms than food production or food preparation. And since everyone eats – though not everyone produces and prepares food – food consumption behaviors are perhaps the area in which it is easiest for most people to see how their behaviors are affected by gender norms.

Perhaps the most obvious way is with dieting. Sandra Bartky (1998) influentially describes femininity, and its associated gender norms, as a "disciplinary regime" governing the state of feminine bodies, requiring training so as to achieve normative shapes and habits. She questions the public-private divide and argues that where gender norms – especially those of femininity but also of masculinity – are concerned, there is no real distinction between the public and the private: we must keep in mind that the Second Wave feminist slogan "the personal is political" applies also to the "production of the 'properly' feminine subject" (Bartky 1998). Dieting is, for Bartky, a paradigmatic disciplinary practice of femininity. If we take dieting out of the Western context of striving for taut, small-breasted, and narrow-hipped bodies, it can apply to any disciplinary form of eating in order to achieve whatever the feminine norm might be even if that norm is the large-bodied "traditionally built lady" of Botswana described in Alexander McCall Smith's popular No. 1 Ladies Detective Agency novels. The goal of dieting, regardless of the specific body-shape norm, is of a "properly" feminine body.

Bartky noted a still-true fact that the majority of American women and girls – and an increasing percentage of men and boys – report being on a diet at any given time. One might attribute this to health concerns in a world with increasing obesity except that diet products and even public health campaigns routinely urge smaller bodies rather than healthy eating, and media are filled with promises of rapid weight loss rather than improvements in cholesterol, diabetes risk, or other health indicators. Dieting to restrict calories, as Bartky says, "disciplines the body's hungers: appetite must be monitored at all times and governed by an iron will."

Persons who appear to have "failed" at this discipline, who have bodies too fat by some standards or too thin by others, are regarded as actually unable to control their own appetites; as Susan Bordo says, the overeater becomes a libertine (Bartky 1998). Abigail Saguy (2013) illuminates how class and race further complicate such judgments, arguing that stereotypes of African-American women as having unbridled appetites inform discussion of their food consumption and body weight. Drawing a wall of separation between the disciplined and undisciplined disrupts the possibility of social solidarity between women of different body types, and to the extent that fat people are also poor minority women, discussions of irresponsible "fatties" shore up prejudices against women of color (Saguy 2013). It is worth noting that in cultures where larger, even fat, bodies are considered the feminine ideal, it is in part precisely because access to more calories allows such a body to be produced. Access to more calories, and the discipline to consume them no matter your body's own signals, then indicates both discipline and relative wealth. Gendered expectations for bodily discipline, shaped also by race and class, make failures of those whose bodies appear undisciplined.

While men are far less subject to the need to discipline their bodies with respect to norms of masculinity, nonetheless, this does affect men. Achieving the masculine body norms of visible muscle tone and definition can require dieting, but most certainly requires not only exercise but a certain kind of exercise aimed at producing a certain kind of musculature. Masculinity, too, is a disciplinary regime aimed at producing the "properly" masculine body. For men as for women, lack of discipline becomes an individual failing.

Gender norms driving food consumption apply not only to body size and calorie consumption but also to what is considered appropriate for men or women to eat. Some elements of French culture view fish as inappropriate for French men to eat because the flaky texture of fish must be eaten in small mouthfuls and chewed gently in a way that contradicts French norms of masculinity (Furst 1997). Women in many Anglo-heritage and European nations are expected to eat salads; it has recently been noted that Internet image searches for a person eating salad are almost universally images of happy, laughing women eating salad. This means of consuming this particular food comports with culture-specific gender norms of self-discipline and feminine bodies. Examples of gendered foods abound, and social status is lost for men if they eat feminine foods in feminine ways, gained when they eat masculine foods in masculine ways. Women, by comparison, lose status by eating masculine foods in masculine ways and retain it by eating feminine foods in feminine ways.

As with self-control and will in food preparation – whether breastfeeding or family cooking – food consumption is deeply affected by norms about both bodies and foods, norms whose nature and application are highly gendered and deeply embedded in culture, class, and race.

Summary

The public-private distinction, though of dubious utility, plays a significant role in how gender norms govern the three food behaviors considered here: food production, food preparation, and food consumption. Norms of domestic femininity are commonly constituted by food behaviors. The impact of gender norms on food behavior is often complicated by issues of culture, class, and race. Several gender norms are of particular

importance, especially norms which make women responsible for others, specifically within the traditional private sphere, and gender norms which make women responsible for conforming their own bodies to ideal standards of femininity.

Cross-References

- Body Image, Gender, and Food
- Child Nutrition Guidelines and Gender
- Ecofeminist Food Ethics
- Farm Management
- Food Advertising to Children: Policy, Health, and Gender
- Food Culture and Chefs
- Food, Class Identity, and Gender
- Gender and Dieting
- Infant Feeding
- School Lunch and Gender
- Sustainable Consumption and Gender

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Gender, Obesity, and Stigmatization

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Synonyms

Gender and dieting; Gender and eating; Gender and food

Introduction

Obesity is defined and identified in a number of ways, depending on whether it is in a medical,

social, public health, or other context. Most commonly used medically is the body mass index (BMI) scale, which uses a formula based on the relationship of height to weight. On this scale, 19–24 is normal, 25–29 is overweight, and a BMI of 30 and above is defined as obese. A BMI of 40 and above is defined as extreme (also called morbid) obesity.

Medical and public health experts consider obesity to be a major health problem. More than 500 million people worldwide are obese, with more than 1.9 million considered overweight (Finucane et al. 2011). Obesity is a major risk factor for type 2 diabetes, and it is also linked to hypertension, cardiovascular disease, sleep apnea, infertility, and osteoarthritis, among other conditions (CDC 2011).

Although the standard medical account of obesity explains it as an energy imbalance – more calories are taken in than expended, resulting in excess weight gain – both its causes and effects are complex and multifactorial.

Obesity affects individuals in a variety of ways: medically, socially, psychologically, and economically, to name a few. Many of these effects are the result of what public health and other experts call "weight stigmatization." Weight stigmatization is not just an aesthetic judgment of physical unattractiveness. It is about using those judgments about someone's weight to form conclusions about other dimensions of their lives (Hebl and Heatherton 1998). Studies on the effects of weight stigmatization are well represented in the social science, psychological, and medical literature. Across the board, these studies show gender differences in both the types and magnitudes of weight stigmatization; women tend to experience more weight stigmatization than men in virtually all social contexts, and the effects on them tend to be more extreme and longer lasting.

After a brief primer on obesity, its causes and effects (and in particular its gender-based effects), this entry will examine weight stigmatization in more detail, giving an overview of some of the major results of studies across social science and public health fields. Next will be a discussion of two main approaches from which to understand and address effects of weight stigmatization. Two common approaches – those pursued by public health ethicists and by various feminist scholars – overlap in some ways but differ substantively about the nature and medical status of obesity. Finally, this entry summarizes responses to issues of obesity and gender from the standpoints of both ethical approaches. There is a growing consensus across disparate groups about how to understand obesity as a social phenomenon, how to address it, and even how to reconceive health and fitness in ways that underplay the importance of body weight.

Obesity: Its Causes and Effects

Currently, the most common way to determine obesity is the BMI (body mass index) scale, which is calculated by taking a person's weight in kilograms and dividing it by the square of his/her height in meters. The resulting numbers fall on a scale in which below 19 is underweight, 19–24 is normal weight, 25–29 is overweight, and 30 or higher is obese. There are classifications for higher BMI values within the obesity category: 35–40 is class II or severely obese, and 40 and above is class III or very severely obese. BMI is the standard used both by the World Health Organization and by the Centers for Disease Control in the United States. Some gender- and race-specific BMI scales have been proposed, but most health organizations use the standard scale. A separate BMI scale is used for children.

According to 2009–2010 data in the United States from the Centers for Disease Control (Fryar et al. 2012), 33 % of Americans are overweight, 35.7 % are obese, and 6.3 % are extremely obese. Breaking the data down by gender, we see fewer women overweight than men (27.9 % vs. 38.4 %), women with about the same obesity incidence as men (35.8 % vs. 35.7 %), but with a much higher incidence of extreme obesity (8.1 % vs. 4.4 %). Among Black and Mexican-American survey respondents, the gender differences are more pronounced. Black and Mexican-American women have a higher incidence of obesity than men (58.5 % vs. 38.8 % for Black respondents, 44.9 % vs. 36.6 % for Mexican-American respondents).

Causes of Obesity

Obesity has multiple causes – genetic, psychological, cultural, economic, and environmental conditions contribute in many ways to increased body mass in populations. Public health approaches to combating obesity have increasingly focused on features external to the individual as causes to target in proposed interventions, policy, or regulation. The built environment, availability and price of fresh fruits and vegetables, amount of food advertising, and access to fast food and sugar-sweetened beverages have been cited as factors that should be addressed at a governmental level in order to help reduce the incidence of obesity.

It is not clear which causes of obesity are gender specific, but income as a contributing social determinant for obesity seems to affect women more than men; studies show that income seems not to be a contributing factor for men, whereas women with incomes under $75,000 are much more likely to be obese.

Effects of Obesity

Obesity is considered a major public health problem because clear links have been established between obesity and a number of adverse health outcomes, including hypertension, type 2 diabetes, cardiovascular disease, stroke, numerous cancers, osteoarthritis, and gall bladder disease (Kim and Popkin 2006). Suggested medical treatments for obesity range from dieting and exercise to bariatric surgery. Estimates of how many Americans are on a diet range from 45 to more than 100 million. Women are the vast majority of dieters (estimates vary from 50 % to 85 %). They also undergo more bariatric surgery to treat obesity than men do – different studies estimate that at least 80 % of gastric bypass surgeries are performed on women. Bariatric surgery carries with it the possibility of mortality, postsurgical complications, and other short- and long-term effects.

Studies have suggested many effects of obesity on women's fertility, pregnancy, and complications in childbirth. Obese women have higher rates of infertility, are at higher risk for hypertension and gestational diabetes during pregnancy, and have higher rates of caesarian sections and longer labors (Linne 2004). Obesity has been positively associated with depression for both women and men, but its relationship with suicide is still unclear. There is some evidence that extreme obesity (BMI $>$ 40) is more likely to be associated with suicidal thoughts and attempts in women than in men. With respect to the relationships between eating disorders and obesity, there is much evidence that women (young women in particular) are at higher risk for eating disorders and that body dissatisfaction can contribute to development of binge eating disorder, bulimia, or anorexia nervosa.

The most pervasive effects of obesity, according to most studies across disciplines, are those resulting from weight stigmatization. In the next section, weight stigmatization will be discussed, with a focus on its effects on women.

Weight Stigmatization

The effects of obesity are not limited to the effects covered in the medical literature. In fact, the most powerful and pervasive effects of obesity are due to weight stigmatization, according to experts in fields ranging from public health to gender studies. Weight stigmatization (also called obesity stigma, fat stigma, weight discrimination, or weight bias, henceforth referred to as weight stigma) is the formation of negative judgments about a person's character or personality traits based on observations and judgments about that person's weight. Weight stigma results in discrimination against obese people in virtually every social context; its effects are extremely well documented by studies across social science and health fields in many countries.

A Sample of Research Findings on Weight Stigma

Weight stigma effects have been documented for virtually all social contexts of life; from education,

work, and family to healthcare, overweight and obese people experience negative judgments from others that result in lower wages, less professional advancement, less access to quality healthcare, and lower overall life satisfaction. Research on weight stigma and its effects is conducted in all fields of social science as well as health and legal disciplines. Below is a brief sample of some of the results from current research.

Economic Effects of Weight Stigma

There is an extensive body of research on the effects of weight stigma on overweight and obese people, documenting a variety of economic effects and psychological effects. For some sample sources and bibliographies, see Baum and Ford (2004); Puhl et al. (2010a); Fikkan and Rothblum (2012); and Friedman and Puhl (2012).

In many studies, overweight and obese people are found to receive lower wages for the same position, fewer promotions than their non-overweight coworkers, and less desirable work assignments and experience lower hiring rates. In a survey of recent research by Friedman and Puhl (2012), they report that 54 % of overweight workers reported being stigmatized by coworkers - negative judgments include being perceived as lazy, lacking in self-discipline and personal hygiene, less competent, less ambitious, and less productive.

Weight stigma effects for women in the workplace have been shown to be much stronger than for men. In one study about perceived job candidate desirability (cited in Fikkan and Rothblum 2012), participants were less likely to recommend overweight or obese female job candidates than male candidates of similar weights. In other studies cited in the same paper, participants made no job-related distinctions between males of different weights, but made many discriminatory work-related decisions about heavier females.

Lost wages due to weight stigma are greater for women than men. Overweight or obese women earn less than non-overweight women (estimates range from 9 % to 17 % less; Fikkan and Rothblum 2012, p. 577). Studies also show that overweight or obese women near retirement age have an overall lower net worth than non-overweight women. This result contrasts markedly with men, for whom being overweight or obese is associated with higher net worth at retirement (cited in Fikkan and Rothblum 2012). Weight stigma workplace effects are also triggered at much lower BMIs for women than men (25 for women vs. 32 for men). Weight stigma in the workplace diminishes with years of work experience for men, but it persists throughout women's careers. At higher incomes, obese women are largely unrepresented: less than 10 % of female CEOs have a BMI over 25, but more than 61 % of male CEOs have a BMI over 25.

Weight Stigma Effects in Education

Studies on weight stigma in educational settings identify a variety of effects that are relevant both economically and psychologically for those experiencing weight discrimination. Overweight and obese adolescents are at greater risk of lower academic achievement and lower rates of social acceptance among their peers. These effects are, once again, much stronger among adolescent girls than boys. In one study, obese female high school graduates were shown to be less likely to go to college than their nonobese counterparts; the researchers found no such effects for boys. Studies have shown that college students with higher weights receive less parental financial assistance than those with lower body weights and found stronger incidence of this effect among overweight females than males. Psychosocial effects of weight stigma in adolescents also appear to be stronger in females – those who perceived themselves as obese were more at risk for depression and lower grade point averages. This effect was not observed for adolescent males.

Weight Stigma and Effects on Mental and Physical Health

Weight stigma effects on health have been shown to erode physical and psychological health in a number of ways. First, those experiencing weight

discrimination tend to receive less and lower-quality healthcare; a recent study of 400 doctors showed that one of three surveyed associated obesity with patient noncompliance, hostility, dishonesty, and poor hygiene (Friedman and Puhl 2012). Overweight and obese patients are more likely to cancel or delay medical appointments, including diagnostic screening tests. In surveys, more than 69 % of overweight people reported being stigmatized by doctors (cited in Friedman and Puhl 2012). This effect is even stronger among overweight women; in one study, 83 % reported avoiding appropriate healthcare because of their weight (cited in Puhl et al. 2010a).

Weight Stigma Effects on Dating and Marriage

The effects of weight stigma on dating and marriage are much stronger for overweight and obese women than they are for men of similar weights. Smith (2012) argues that a primary reason why weight stigma affects women so much more severely than men is that overweight and obese women are seen not only as lacking control but also as unattractive. Many studies show marked gender asymmetries in social penalties for obesity. Obese women have lower marriage and cohabitation rates than their nonobese counterparts. When they do marry, their partners tend to have lower levels of education and lower incomes. These effects were either less strong or not observed for men (cited in Fikkan and Rothblum 2012). Among adolescents, studies show that obese girls are seen as less physically attractive, having a lower sex drive, and less warm than nonobese girls. Again, this effect was not observed for obese boys.

Obesity and Weight Stigma as a Vicious Cycle

There is a common view still present in popular discussions about obesity that stigmatizing obesity functions as a motivation for overweight and obese persons to lose weight. Stigmatizing weight, seen in this way, is like stigmatizing smoking, which has resulted in lowered incidence of smoking in the United States (see, e.g., Beam 2011). Potential merits of this strategy have also been argued for by bioethicist Daniel Callahan (2013), provoking considerable backlash from obesity researchers.

However, there is much scientific evidence to suggest that the abovementioned view is not true – that is, weight stigma exacerbates rather than diminishes the incidence of obesity (Sutin and Terracciano 2013). Weight stigmas can increase psychological stress, which itself can contribute to poor physical health and increased obesity. States of extreme psychological stress can activate physiological mechanisms governing appetite and satiety, contributing to increase food intake and abdominal obesity, the latter of which is a risk factor for type 2 diabetes (cited in Puhl et al. 2010b). Weight stigma also exacerbates eating disorders, often resulting in weight increases among obese and overweight people already suffering from discrimination. Studies have shown that among both women and men, internalizing weight stigma leads to increased risk of binge eating, higher calorie intake, and reduced exercise. Puhl et al. (2010a, p. 1023) note that research suggests connections between perceived weight discrimination and increased weight gain, glucose intolerance, and abdominal obesity. Among women, weight discrimination has been found to be the third most common source of perceived discrimination (after gender and age) – more so than race, sexual orientation, religion, or physical disability (Puhl et al. 2008).

Public Health and Ethical Ramifications of Weight Stigma

Scholars in science and humanities fields have provided varied and extensive analyses of some of the cultural and societal sources of weight stigma. Social science researchers have documented the prevalence of negative views and stereotypes about those who are obese, including blaming obese and overweight people for a lack of willpower or self-control. This is the case despite the fact that to date there has been

little progress in developing effective medical treatments to bring about and maintain long-term weight loss. Many public health researchers (e.g., Puhl et al. 2010a) argue that weight stigma is a social justice as well as a public health issue. Historically vulnerable populations (e.g., low income and minority groups) are at greater risk for obesity and, because of income and health inequalities, also suffer disproportionately from many of the effects of both obesity and weight stigma. Groups that already suffer from racial, sexual, and other forms of discrimination have been harmed in measurable ways by the pervasive effects of weight stigma. Friedman and Puhl (2012) argue for the need to develop federal, state, and local laws and policies specifically prohibiting weight-stigmatizing practices in business, schools, healthcare facilities, and all levels of government. Public health ethicists have long argued that disease stigma results in harms to vulnerable populations (especially in cases of alcoholism and HIV/AIDS) and has blocked advancements in prevention and treatment. Enacting legislation, regulation, and policies designed to protect overweight and obese people from the harmful effects of weight stigma is, in their view, a basic human rights issue.

Gendered Judgments, Fat Bodies, and Weight Stigma

Feminist scholars have long argued that weight stigma against women takes place within cultures obsessed with thinness as an ideal (Orbach 1978; Bordo 1993). Since the publication of these early groundbreaking works, many scholars have pursued arguments that reveal inconsistencies in the ways norms about body weight, health, and social equality have been conflated and leveraged against women. Saguy (2013) objects to the ways obesity has been pathologized and demonized in Western societies. Noting the lack of effective medical treatments for obesity and scientific evidence that fitness and health do not equal lack of fatness, she argues for a reframing of conceptions of body size as more neutral points along a spectrum. Her position is embraced by many obesity support and obesity rights advocacy groups like the National Association to Advance Fat Acceptance and Health at Every Size.

Fat studies – a recently developed field – engages in critical examinations of the origins and justifications for normative claims about body size in societies where weight stigma is common. Comprised of both social scientists and humanists, fat studies scholars like Rothblum and Solovay (2009) self-consciously blur the lines between academic and activist approaches to the social phenomena that underlie claims, theories, and practices surrounding body weight norms. In particular, fat studies scholars often situate judgments about fat bodies within a context in which political power is gained through marginalizing vulnerable groups (e.g., women, racial minorities, overweight and obese, LGBT, disabled) and creating a social and political "other" to be excluded. By endorsing liberation for these groups, fat studies scholars are advocating for political change, cultural shifts in how members of society are viewed and accepted, and a new set of expanded identities that embraces diversity.

The politics of fatness is not just at the individual level, according to feminist scholars, but also at the center of international commerce and geopolitics. In Vandamme et al.'s (2010, pp. 143–157) work, Wilkerson argues that cultural practices that enforce strict body ideals and pathologize heavier bodies are part of what she calls the Thin Contract – the body and its status (e.g., as fat or thin) are "central to determinations of sociopolitical inclusion." She claims that any discussion of obesity and its effects is shaped by political dynamics that span food production, labor, and global commerce. Her position is echoed by Lebesco (2004), who argues that fat is not a medical or aesthetic, but rather a political state of body; she entertains the idea that fat bodies are considered failed citizens, deficient in multiple ways and deserving of social rejection. Her response to what she sees as political injustice is to transform fat identity through community activism, aligning fat, queer, and disability groups for more effective and increased fat-positive messages.

Summary

Obesity is generally defined as an energy imbalance in which more calories are taken in than expended. The body mass index (BMI) scale is the most common way of measuring obesity. A majority of both women and men in the United States are overweight or obese, and to date there are few effective treatments for loss and long-term maintenance of weight loss. In addition to the physical effects of obesity, overweight and obese people are harmed by the pervasive effects of weight stigma in the workplace, in schools and healthcare facilities, and in social relationships. Women experience stronger and longer-lasting weight stigma effects than men, affecting them economically, socially, psychologically, and physically. Public health and feminist scholars agree that weight stigma is a violation of the rights of overweight and obese people and argue for a variety of ways to redress the harms that they suffer. Approaches vary, ranging from proposed antidiscrimination legislation to a reconceptualization of body identity.

Cross-References

- ▶ Eating Disorders and Disturbed Eating
- ▶ Ethical Assessment of Dieting, Weight Loss, and Weight Cycling
- ▶ Medicalization of Eating and Feeding
- ▶ Obesity and Consumer Choice
- ▶ Obesity and Responsibility

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Geographic Indications

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Synonyms

Appellations; Appellations of origin; Certification marks; Collective marks; Designations of origin; Denominations of origin; Geographic indications; GIs; Marks; PDO; PGI; Trademarks

Introduction

In the production of commodities, each producer of a particular good is a direct competitor to every other producer of that same good, a situation known as the commodity trap. To avoid the commodity trap, where price is the only differentiating characteristic amongst similar products, farmers have long joined collective marketing arrangements, coming together to cooperatively differentiate their products from others', thereby increasing their incomes (Wolf 1944). Geographic indications (GIs), although not new, are an increasingly popular instrument of such collective marketing arrangements amongst producers and exporters of agri-food products. In 2009, there were more than 10,000 protected GIs in use globally whose estimated trade value exceeded US$50 billion (Giovannucci et al. 2009). The vast majority of GIs are not well known and are often legally unprotected. It could be argued that the average consumer has consumed, knows of, or has seen GI products without realizing that those products are in fact GIs or what the GI represents. This entry will discuss the value, costs, and caveats of utilizing GIs as well as their current status in the global trading and legal environment. The practical considerations of pursuing and protecting a GI are also provided.

The discussion will demonstrate that pursuing and protecting a GI is not an easy, inexpensive, or short-term undertaking. This is particularly true for a GI originating in a developing country that is pursuing a "greenfield" export strategy in which the GI is entering a new export market (usually in a developed country) where it lacks profile, is relatively unknown amongst consumers, and therefore must "start from scratch" in terms of building awareness. Some studies exist that empirically show GIs earning price premiums but do not take into account the costs incurred to do so. Given that producers in developing countries have limited resources, pursuing GIs as an export strategy poses significant and high risks with uncertain outcomes; those limited resources may be better utilized elsewhere with less risk and more reliable results. Some developed country governments and NGOs are advocating the use of GIs as a strategy to improve agricultural incomes in developing countries without strong evidence of the efficacy of the strategy. The governments of developing countries considering utilizing GIs as an agricultural and export development strategy should reconsider until empirical evidence conclusively illustrates that GIs increase producers' incomes. Essentially, GIs require further study utilizing empirical cost-benefit analysis before they can be recommended as an export strategy for developing country producers or as an agricultural development strategy for developing country governments.

What Is a GI?

Agri-food products with associated geographic names provide information to consumers. While an indication of the source (i.e. Product of Canada) informs consumers of a product's place of origin, a GI imparts further information regarding specific quality characteristics of the product due to its geographic source and grants exclusive rights to producers to market their designated products from a specified geographic area. Giovannucci et al. (2009) describe a GI as a concept that:

> Identifies a good as originating in a delimited territory or region where a noted quality, reputation or other characteristic of the good is essentially attributable to its geographical origin and/or the human or natural factors there. (p. 5)

GIs are a form of intellectual property, where a name is associated with a process or product's originating region or locality *as well as* a specific reputation for quality or authenticity. They can be applied to agri-food products, nonagricultural products, traditional cultures, processes, and production methods. GIs evolved from the French concept of *terroir* where a specific geographic locale whose natural environment, possibly in interaction with the climate or other natural phenomena, in combination with a traditional production knowledge, lead to a product that exhibits unique traits and reputation which are associated with the physical attributes of the natural environment or location-specific human capital where it was produced (Kerr and Yeung 2012). As with any knowledge, it can be used by others without attribution, meaning that the originator receives no return on efforts to produce that knowledge. This lack of attribution or return on efforts to create knowledge has long been a public policy issue as the absence of reward creates an economic disincentive to create and innovate. It has also become an ethical issue when the value of traditional knowledge is not recognized and is freely exploited by others for economic gain (Isaac and Kerr 2003). In the case of geographic indications, it is the traditional ability to exploit unique physical characteristics to produce geographically unique products or to use location-specific (often traditional) knowledge in production that is open to free exploitation by others. Endowing those having that knowledge with intellectual property rights and commensurate legal protection is an attempt to correct an ethically based market failure.

GIs impart the exclusive right to market designated products from a particular geographic locale to a group of producers and processors. As consumers become more familiar with a particular GI, the value of that GI may increase, in a process comparable to that of developing a marketable brand name. The GI becomes a symbol for the relationship between the product's name, its special qualities, and its place of origin. It is important to note that a GI will protect a name and its *relationship* to a specific product, not the product itself. The actual product, its ingredients or formulation, independent of origin, is not protected by the GI. For example, a winemaker based anywhere in the EU can create a fortified red wine; so long as they do not call it "Port," it is a legitimate product. Only producers in the Oporto region of Portugal can call such a product "Port."

GIs signal a product's credence attributes to consumers. Credence attributes are characteristics of goods that cannot be detected by consumers, even subsequent to purchase and consumption, without some form of labeling. In the agri-food industry, credence attributes may include production methods (traditional, organic, free range), qualities (smoked, effervescent), source (local, Bob's family farm), or food safety characteristics. For example, even post purchase and consumption, an average consumer may not be able to organoleptically differentiate between olive oil that is grown in a famous, historic olive-growing region of Greece, on trees grafted from the original Phoenician groves, and regular, conventional olive oil. The only means to indicate these unique traits is labeling (i.e., through a GI) and to take advantage of the marketing opportunity such labeling facilitates.

GIs are registered and protected in different forms across different countries and may be protected in one country but not another. In fact,

many GIs have considerable profiles with consumers but do not enjoy universal GI protection because they are considered generic terms (i.e., their names are now in regular use as part of the common lexicon) in some markets. For example, Feta enjoys protected status as an inherently Greek product in the European Union (EU) but not in North America where the word "feta" can be used generically to describe a type of cheese, whether produced in Greece or not. Generic terms are a point of international contention because of this inconsistency in protection. Should the original producers of a GI product, name, or process neglect to register and actively protect that particular GI outside their domestic market, they risk losing their exclusive rights to it in those markets. This issue will be discussed in greater detail in a subsequent section.

Use and Status of GIs

GIs are increasingly popular amongst a broad range of stakeholders for a variety of reasons. Consumers benefit from GIs due to their provision of information, thereby reducing information costs and increasing transparency in the market (Josling 2006). Consumers may also benefit from a guarantee of quality provided by GIs. A growing segment of consumers are interested in a product's guarantee of origin whether for the particular place, production method, expected quality, or tradition. Reports indicate that consumers prefer and/or would be willing to pay a premium for the guarantee of origin and/or quality provided by a GI (Giovannucci et al. 2009). GIs enable producers to escape the commodity trap by conveying information about, and thereby, differentiating their product from those of competitors. This type of differentiation provides a strategic form of competitive advantage that is not easily eroded while also providing a means of protection for the group's cultural or intellectual property (Giovannucci et al. 2009). Producers also benefit from the "feel good" factor of having their product gain recognition as being special (Kerr 2006).

It is also argued that GIs benefit their larger environment (rural areas, regions, and even countries) through improving the reputation of a place or region, with the potential for encouraging tourism, as well as providing the structure and means to affirm and place value on an area's unique sociocultural and agroecological traits, including quantifying the importance of "local" in products, production, and values. Producers', processors', and suppliers' incomes increase due to their associative relationship with the GI; economic development occurs based on the competitive advantage developed through utilizing local natural resources. Local or regional development initiatives are increasingly including GIs as a component due to this fostering of competitive advantage in natural resources. The EU has made GIs an essential element of its agricultural and rural development strategies (Josling 2006), significantly increasing the number, profile, and protection of recognized GIs. The EU is the most active proponent of GIs, with a total of 6,021 protected GIs in 2009 (of which 5,200 are wines/spirits and 821 for foods) and more are in process; the vast majority of protected GIs, many of them wines and spirits, originate in the OECD countries. While developing countries have innumerable products that are potential GIs, not many enjoy formal protected status as GIs; few currently have significant economic value beyond their domestic markets, and formal GI status would not necessarily increase their profile or demand in export markets.

The actual number and value of GIs is difficult to calculate, particularly in developing markets, or even on a global basis, due to different registration systems and the lack of a central registry. GIs that are protected as trademarks are difficult to differentiate from those that are not GIs, while difficulties also arise where GI registration systems overlap or are duplicated. The great variance in protection systems used by different countries and their associated costs and benefits mean that a producer group must cautiously and completely assess a broad range of factors in deciding whether or not to pursue a GI registration as part of their export strategy.

How Are GIs Protected?

GIs require protection because, like any other brand, their names and therefore their intrinsic values are in the product's reputation or guarantee of quality. Fraudulent use of that name by imitations lacking the expected quality or reputation will erode its value. Protecting a GI is achieved through the granting of intellectual property rights (IPR), albeit this is implemented in practice in a number of different ways. Without adequate protection and enforcement of that protection, GIs invariably lose their geographic connection in the minds of consumers, allowing extra-regional competitors the opportunity to imitate the GI, free riding on its reputation. Eventually lack of protection and enforcement will result in a GI becoming generic where its geographic connection is universally and irrevocably lost as the name becomes part of common lexicon. Mocha coffee (originally of Yemeni origins) and Gouda and Swiss cheeses are examples (Giovannucci et al. 2009).

A protectable GI must have a geographic link that imparts a specific quality or reputation; therefore, most indications of source such as "Made in China" do not constitute a GI. A GI becomes protected initially in its country of origin through a variety of methods including, either individually or in combination, certification marks, denominations of origin, collective membership marks, trademarks, formal sui generis systems, administrative rulings, registers, and even under laws pertaining to consumer protection, unfair competition, and labeling (Giovannucci et al. 2009). This diversity of methods and systems contributes to the difficulties in accurately accounting for GIs globally as well as the potential for confusion and conflict. The combinations of legislation, regulation, and administration with the variance in terminology used in intellectual property law further confuse a complex topic, even amongst legal professionals.

International trade agreements offer little enforceable protection for GIs. The Lisbon Agreement and Madrid Protocol both have diminished effectiveness due to limited membership and the inability to settle disputes (Kerr 2006). The Agreement on Trade-Related Aspects of Intellectual Property (TRIPS) of the World Trade Organization (WTO) provides the basic regulatory framework to protect GIs, but individual countries choose the method of implementation and degree of enforcement. Countries pursuing bilateral and regional trade agreements are increasingly including GI protection as components of such agreements. There is a push amongst some WTO member states to create a multilateral register of GIs that would extend greater TRIPS protection to GIs across foreign jurisdictions, with little consensus to date.

Some countries (e.g., the USA, Canada) use trademarks as part of their existing intellectual property protection regimes to incorporate GI protection. Other countries utilize a sui generis system to protect GIs. The EU has created a sophisticated and comprehensive body of GI legislation and regulations which focuses on the registration of protected designation of origin (PDO) and protected geographic indication (PGI). A PDO uses the name of a place whereby a product must be produced *and* processed within the defined geographic area, exhibiting qualities that can be attributed to that area, including natural and human factors (Giovannucci et al. 2009). A PGI is a more flexible designation as the product must be produced *and*/*or* processed in the defined geographic area. A PGI must exhibit some contribution from the defining qualities or characteristics of that area in its production and/or processing and/or preparation, but not necessarily the human contributions.

Collective marks and certification marks are other popular means of protecting GIs. Collective marks can only be used by members of a collective group, association, or cooperative to identify the connection between the goods/services they provide and their standards. A certification mark is one that indicates the product or service has met standards and specifications, in production methods, for example, set by the owner of the mark. The owner of the mark controls its use but may not discriminate against any applicant who meets the set standards so long as the mark is used for the purposes for which it was registered.

Although both the USA and EU appreciate the value and function of GIs, they approach their protection of them in vastly different ways, both philosophically and methodologically. As some products and place names are protected in one market (EU) but are considered generic and therefore not protected in another (USA), IPR tensions can arise. Feta, port, cheddar cheese, mocha coffee, Worcestershire sauce, and Gouda and Swiss cheese are all examples of products whose original origins were geographic that do not have global protection (Giovannucci et al. 2009).

Attempts by the originating owners to reclaim a generic name in a process known as "clawback" invariably cause conflict as existing users of the generic name have vested interests in maintaining their use of the name. A Wisconsin cheese manufacturer that currently produces feta legally will be unwilling to relinquish the use of the word "feta" in describing its product. Should the EU be successful in its attempts to clawback the word "feta," where only Greek holders of the GI "feta" could use that word to describe their cheese, the Wisconsin cheese maker's ability to use "feta" to describe its product would be negated, necessitating finding an alternate name. If clawbacks are applied in developing country markets, as the EU is pursuing in its regional trade agreements, developing countries must spend their limited resources protecting the monopoly rents of foreigners (Yeung and Kerr 2011). In exchange for clawbacks, the EU is offering reciprocity by protecting developing country GIs in its market. As few developing country GIs have a profile in the EU, thereby negating the opportunity for rent seeking via clawbacks, reciprocity for developing country GI holders entails pursuing a greenfield GI development strategy, an endeavor that requires careful assessment.

Strategy for a Successful GI

While the success and benefits of GIs have been reported as general market trends in many studies as examined in Giovannucci et al. (2009), there is little empirical evidence showing that increases in producers' incomes can be singularly attributed to GIs. Most studies report price premiums which are attributed to GIs but fail to examine other market factors that may be contributing to the premiums achieved or the additional costs incurred to produce, establish, and maintain a GI (Kerr 2006). Many studies report potential benefits for producers including positive externalities such as preservation of traditional culture, community self-esteem, or improved organizational skills, all of which are beneficial in their own right, but such externalities do not constitute clear, empirical proof that GIs increase producers' incomes (Yeung and Kerr 2011). This paucity of empirical evidence raises a number of questions regarding the expenditures needed to support GIs as firstly, an agricultural and rural development tool, particularly for developing countries; secondly, a viable strategy for producers, again in particular for those in developing countries; and thirdly, as an instrument requiring further protection under commercial and international trade law. GIs present challenges in two main areas.

Establishing and maintaining greenfield GI development in new markets is a complex process. However it is registered and protected, either via trademarks or sui generis in its domestic market, significant additional transactions costs will be incurred in registering and protecting a new GI product internationally, given the fact that two main systems are in use globally. Prior to incurring the associated costs of seeking protection in foreign markets, however, a new GI must have a strong establishment strategy to support its success.

Markets for GI products are generally in developed countries where consumers have sufficient incomes to purchase products at premium prices. Yet such markets are characterized by fickle consumers for whom novel products are the norm. Garnering and sustaining their interest to generate more than passing initial success is a risky endeavor. In order to achieve long-term success, a greenfield GI must have a strategic plan and a long-term commitment of resources to establish, develop, and protect it, both on the demand and supply sides of its marketing chain.

The value of owning a GI is its exclusivity (the monopoly on its use); strategically it must be recognized and then defended in an export destination's market. Gaining recognition in foreign markets will require the GI owner to demonstrate the inherent link and unique value between the product's quality and its GI to the appropriate foreign authorities in the registration process. The granting authorities may require that the owner of the GI demonstrate consumers' willingness to pay a premium for these quality gains. Such consumer research can be costly to obtain. If the GI is such a novel one that consumers have no experience with it, a consumer education and marketing campaign will be necessary prior to determining whether a price premium for such a product is warranted. Such a campaign has the risk of alerting potential competitors prior to the GI becoming protected in the destination market and creates a potential challenger in the registration process. Registration may be denied if domestic interests can illustrate valid objections. Thus, the registration of a GI in a foreign market must be strategic in its finances, timing, and execution as well as have strong counterarguments prepared for any potential objections.

Once the GI gains official recognition in the destination market, it must then be defended and its exclusivity enforced. The GI owner must monitor the market continuously for counterfeit products and/or infringement of the GI. Should this occur, the onus will be on the owner to inform the appropriate authorities in the foreign market and, subsequently, gather and present evidence of the transgression, including the potential preparation and financing of legal cases. The greater the success of the GI, the greater the potential for infringement and counterfeiting as competitors attempt to free ride upon that success. The nature of agri-food products has inherent safety risks, despite the most stringent production, processing, and distribution controls. A GI must have a disaster management plan to ensure safety and address any potential food safety issues. Procedures for product recall, cooperation, and communication with local authorities and consumers and an emergency management plan must be prepared and ready to implement. Therefore, a GI's strategic plan must have a well-financed long-term commitment to monitor and protect it, including contingencies for avenues of legal action if necessary and an effective, rapid-response emergency disaster plan.

Once a GI is officially registered in the destination market, a comprehensive marketing effort must be launched to create the perception of value in the minds of consumers. Consumers in the destination market will need to be educated about the GIs existence and convinced of its special qualities that would make it worthy of a price premium as well as be provided with information regarding its preparation, storage, and use. Once the initial consumption experience proves positive, consumers must be moved from novelty to sustained consumption where dietary habits change to regularly include the GI or commit to the GI-based brand. This is a formidable challenge as the marketing efforts and resources devoted to GIs such as Kona coffee, champagne, or Columbian coffee can illustrate. If consumers cannot be convinced to regularly consume the GI beyond that first novelty "test-drive," the owners' investments to increase production for sustained export purposes may not be justified.

GIs also face supply side risks where long transport distances from field to foreign consumer, passing through many steps that can affect its quality, necessitate strong supply chain management. As vertical supply chain integration is often infeasible for developing country GI owners, independent contractors will handle the GI on its way to the final consumer. Whether such contractors are able or willing to maintain the GI's quality cannot be fully guaranteed. Quality in contents or packaging, timely and appropriate transport, perishability, optimal storage, timely shipping, and delivery are all aspects of a supply chain that can negatively affect a GIs quality and reputation, beyond the control of the producer. Effective supply chains manage information flows both up and down the chain (Hobbs 2001); managing information requires resources. The relationships within the supply chain must also be organized such that GI holders capture a significant portion of the returns from the GI; producers in the developing world who undertake

the effort to create and protect the GI should not bother if they cannot capture a considerable amount of the extra value created by the GI (Yeung and Kerr 2011).

Within the producer group that owns the GI, stringent quality controls must be created and enforced to ensure the quality of the product. The group must collectively support and internally enforce the GIs standards while managing group dynamics and settling internal disputes, all in the name of preserving the GI's quality. The GI's producers each have a stake in each other's performance and the product's integrity and success, as well as an equity share of the value of the GI. They must also be able to manage any changes, hopefully due to success, that the GI garners, whether a need to expand production, respond to consumer demands, manage new producers who want to produce the GI, production of new products under the GIs reputation, undertake alternative marketing initiatives, address issues of tradition compared to innovation, etc. The producer group that owns the GI must be able to anticipate change and have the means to adapt. They must also have a long-term and dynamic business plan that will provide a mechanism for effective supply chain management and address any threats to their exclusive monopoly that may arise due to their success.

Each of these elements contribute essential components towards a GI's commercial success in a foreign market. As Josling (2006) notes regarding the success of some EU GIs:

> A quick glance at the scale of production of many of the GIs suggests they are not geared toward global markets. Many names protected by GIs would not be recognised in other parts of the same country, let alone in other member states in the EU. So the role of these GIs in marketing is unclear. If small groups of producers choose to register their name and production process, . . . they are unlikely to benefit from sales beyond their own region if the information is not meaningful to more distant consumers. (p 360)

This strategy also demonstrates that GIs are not a rapid solution to low returns for agricultural producers, despite some benefits for developing countries incorporating GIs in their export-oriented development strategies. A GI's success depends on the ability of producers to capture any competitive advantages endowed through human and natural resources as well as their ability to convey meaningful information to consumers. This requires a certain level of organizational skill and resources to maximize any rents garnered by a GI designation, which often does not exist in developing countries. For developing country producers, greenfield GI development in developed markets is a risky and expensive strategy; given that evidence of the ability of GIs to increase producers' incomes is weak, recommending that developing countries expand the role of GIs in their development policies is complicated. Consequently, furthering the protection of GIs at the WTO on the basis of reciprocal protection in developed countries' markets may not represent the best option for developing countries (Yeung and Kerr 2011). While developing countries should access GI protection in developed countries where the situation warrants, whether via trademarks or sui generis, encouraging developing countries to actively pursue development strategies based on GIs should be deferred until the efficacy of GIs in generating sustained increases in producers' incomes can be credibly assessed.

Summary

Geographic indications are a form of intellectual property protection that protects a link between a product's (or process's) place of origin and specific qualities or reputation attributed to that place of origin. GIs provide information to consumers about a product's credence attributes and are used by a collective group of producers as a type of guarantee that the product (or process) is authentic.

GIs are protected through a variety of methods, including as trademarks within the existing IPR systems of countries sui generis systems, and collective and certification markets. This broad range of methodologies makes it difficult to accurately measure the actual number of GIs in use around the world, or even in specific

countries; it also creates tensions between countries that use different systems to protect GIs. GIs can be protected in their domestic market but not in foreign markets due to these differences in systems. The use of a GI's name can become generic where the inherent connection with its place of origin is irrevocably lost in the mind of consumers. Attempts to regain the exclusivity of a generic GI by the originating country are known as clawback. Clawback is controversial as foreign firms legally using the generic name have vested interests in maintaining that use.

Seeking a GI designation in foreign markets as an export strategy is a complex and costly process, particularly for developing country producers. They must have a long-term commitment of finances and resources to ensure the successful registration, marketing, and protection of the GI in that specific export market. They will face demand side challenges and challenges along their supply chain as well as change management issues. For any long-term commercial success, they must have a comprehensive strategic plan for that GI in that particular market as well as some essential organizational skills and resources, which often simply do not exist in developing countries. GIs are therefore a highly risky and expensive undertaking for producers from developing countries.

GIs originating in developed countries have proven to be popular tools for their producer groups with many positive externalities and the potential to expand exports. The differences between the circumstances of developed and developing country GIs, however, greatly influence their potential export success. Developed country GIs tend to already enjoy consumer awareness and use in their destination markets prior to becoming GIs, thereby reducing their establishment costs in foreign markets. Developed country GIs enjoy the IPR protection benefits of well-established government institutions, infrastructure, programs, and systems. Their producers have easy access to information, assistance, services, and support for their GI, all of which may not be accessible or available to producers in developing countries.

That is not to say that developing country producers should not export their GIs or seek GI protection in foreign markets should their individual circumstances allow, but, positive externalities aside, until there is credible empirical evidence proving the efficacy of GIs in increasing producers' incomes, producer groups must carefully weigh the full costs and benefits of such a strategy. Similarly, developing country governments should reassess any development strategy that relies on exporting GIs to developed country markets.

Given the paucity of evidence illustrating that rises in producers' incomes can be singularly attributed to GIs, particularly in conjunction with the costs incurred in pursuing, establishing, and protecting the GI, recommending that developing country producer groups pursue a greenfield GI export strategy in developed country markets would seem a risky use of their limited resources.

Cross-References

- ▶ Agricultural and Food Products in Preferential Trade Agreements
- ▶ Ancestral Cuisine and Cooking Rituals
- ▶ Artisanal Food Production and Craft
- ▶ Authenticity in Food
- ▶ Food and Agricultural Trade and National Sovereignty
- ▶ Food and Place
- ▶ Food Legislation and Regulation: EU, UN, WTO and Private Regulation
- ▶ Intellectual Property and Food
- ▶ Intellectual Property Rights and Trade in the Food and Agricultural Sectors
- ▶ Trade and Development in the Food and Agricultural Sectors

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Geographical Indications, Food, and Culture

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Synonyms

Labels of protected origin and culture

Introduction

Over the past two decades, geographical indications (henceforth GIs) have been at the center of a tensed international debate. Favoring their enforcement, some argue that GIs comprise the best legal tool for defending regional culinary cultures, including those of emerging countries, whose producers have little means for independently claiming reward for their most original work; thus, as noted in a United Nations Conference on Trade and Development (UNCTAD) study, GIs "reward producers that maintain a traditional high standard of quality, while at the same time allowing flexibility for innovation and improvement in the context of that tradition" (Downes and Laird 1999, p. 6). On the other hand, major international corporations – voicing their position especially within the WTO (Handler 2006) – have stressed that GIs create monopolistic opportunities, obstacolating free trade around the globe. Further criticisms, finally, point out that GIs are inefficacious in rewarding the people from within the know-how originated. After a summary of the historical and legal highlights regarding GIs, the entry addresses the main metaphysical and ethical interrogatives surrounding GIs of agricultural origin, in connection with the identity of the food product and its cultural underpinnings.

Historical and Legal Highlights of GIs

GIs are one of the oldest and most renowned ranks of entities covered by intellectual property right in modern history (see O'Connor 2004). Their role is to protect the essential contribution of a geographical location in the making of a product, provided by special climatic, geological, and biotic conditions and by a *sui generis* know-how. GIs protect goods of all sorts, including jewelry, textiles, and handicrafts. The vast majority of GIs, however, are agricultural products, in particular wines and spirits. Some early and well-known specimens include Chianti Classico wines, whose geographical area of production has been specifically designated since 1716; Tokaj-Hegyalja wines, whose threefold classification was introduced in 1730; Champagne wines, invented at least in 1531, defined in 1662, and then protected from 1891; and Port wines, specially denominated and regulated since 1756.

Four major agreements over the last 130 years have come to define the legal status of GIs: the Paris Convention for the Protection of Industrial Property (1883); the Madrid Agreement (1891); the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration (1958); and the Agreement on Trade-Related Aspects of Intellectual Property Rights (1994), henceforth abbreviated as TRIPs. Articles 22 and 23 of the TRIPs, signed within the WTO by 117 countries, regulate to these days the protection of GIs at the international level. Article 22.1 establishes that

> Geographical indications are, for the purposes of this Agreement, indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.

The comma sets GIs as a more restrictive legal category than "indications of sources." An indication of source, indeed, may more modestly flag that a good was once invented, tended, and fabricated in a certain region. This does not imply that the good, whose source is indicated, was produced in the region where it first originated. Indications of source, that is, establish a generic tie between a kind of good and a geographical area. On the contrary, a GI implies a specific tie of the labeled product to a geographical region: for instance, each single bottle of Port wine must come from the Port district in Portugal.

Article 23 of the TRIPs, then, bestows an even higher level of international legal protection to wines and spirits. In fact, the Article requires that each member country "to prevent the use of such GIs irrespective of whether the consumers are misled or whether the use of such indications constitutes an act of unfair competition" (Das 2006, p. 463). Wines and spirits, protected by an "appellation of origin" as specified in Article 23, enjoy labels that have a more restrictive legal status than generic GIs in two respects. First, appellations of origin must indicate a geographical area, whereas some GIs may be attached to a non-geographical descriptor, such as Basmati (which refers to a variety of rice, rather than to a region of production). Secondly, the more generic reputation of a product is not sufficient to establish an appellation of origin; the essential tie to the geographical area must be proved (cfr. Das 2006, pp. 462–463).

Five aspects of the ways GIs are understood under the TRIPs are particularly relevant from a philosophical perspective:

(i) GIs are treated as intellectual property rights.
(ii) GIs are identified through relationships with a spatial region.
(iii) GIs are identified with respect to no temporal limit.
(iv) GIs are identified through some *essential* properties of the protected items.
(v) Recognition and protection of GIs is left to each individual country.

In other words, for any item that is ranked as an instance of a GI, some individual or corporation may claim its exclusive ownership (i). The ownership in question stems from the relationship between the item produced and a certain portion of land (ii), which is not temporally characterized (iii). Not all the items produced on that land, however, qualify to be protected under the GI; a GI is a method of ranking items based on whether they present those traits that essentially define the intellectual novelty to be protected under the agreement (iv).

Chianti Classico is a case in point of GI. A wine can be included under this rank only if the grapes from which it originated were grown in specific portions of nine townships in Central Tuscany, between the provinces of Florence and Siena. The property right over items produced in these territories does not have any temporal limitation; in order to qualify as Chianti Classico, a product must fulfill a relatively long list of requirements, including grape variety, fermentation techniques, organoleptic aspects, and bottling restrictions.

A widespread belief among consumers has it that – as Sophie Reviron et al. recently put it – "GIs are not only a business but part of a regional patrimonial strategy, perceived to be for the benefit of both farmers/processors and consumers" (Reviron et al. 2009, p. 27). Is this really the case?

On which grounds can the introduction of a GI such as Chianti Classico be, metaphysically speaking, accounted for? In other words, which features of the wine can serve to justify a claim of intellectual property right and the introduction of a rank with the five above specified characteristics? Two principal methodologies for answering this question have been advanced, one centered on the concept of *terroir* and the second resting on scientific considerations. Both are liable of important criticisms.

The View from Terroir

The most common argument in defense of GIs is that they stem from and are key to protect specific *terroirs*. "Over recent years, place has come to play a central role in defining the character and quality of agricultural products" (Demossier 2011, p. 685); the trend goes hand in hand with the rising importance of *terroir*, a concept that has no easy metaphysical analogues. A great deal of publications in the social sciences has been devoted in the past dozen years or so to uncover the nuances of such a concept *Terroir* is supposed to capture some qualitative aspects of an item while being unable to pin them down specifically. Thus, the *terroir* of the wine in a Chianti Classico bottle is a qualitative aspect of the wine itself, derived from the biotic conditions of production (the rocks, soil, air, plants, insects, birds, yeasts) as well as the complex system of practices – often indicated under the expression "know-how" – that yielded it.

Accounts of GIs based on the specificity of *terroir* seem to be disputable for two main reasons. First, because the economic model promoted by GIs seems to defy the condition of localized know-how embedded in the definition of *terroir*. Indeed, once a GI is bestowed upon a certain product, its increased economic attractiveness encourages heterochthone investors and workforce to take part in the production process. Recent trends in wine production, for instance, bear witness to this. Just to stick to the example cited above, a large proportion of Chianti Classico wines are owned by investors that would not identify themselves as inhabitants of the region; at the same time, a large percentage of the workforce comprises recent migrants from Macedonia, Albania, and countries in Northern Africa (cfr. Cicerchia 2009). While such a trend may increase creativity in wine production, it flies in the face of those arguments relying on the stability of wines' know-how.

Secondly, GIs have no temporal boundaries, yet climatic, geological, and biotic conditions within *terroirs* change, sometimes drastically, over decades and centuries (cfr. Ingold 2000, Chap. 11). For instance, the environmental conditions in the Champagne region have considerably changed over the past five centuries, thus making unclear what are the essential characteristics that the GI over Champagne wines aims at protecting.

The concept of a GI is often equated to the one of *terroir* in the relevant literature; a sample is the following passage by Tim Josling: "The form of intellectual protection known by the term 'geographical indications', or GIs for short, is central to providing the concept of *terroir* legal expression" (2006, p. 338). However, as the remarks above underline, there are some important distinctions between "*terroir*" and "geographical indication." The latter is a legal category defined through an essential tie to a geographical location, with important economic implications, as Addor and Grazioli underline:

> In consequence, the improved protection of geographical indications for all products on a level similar to the one granted at present for wines and spirits, would promise trade and investment advantages, in particular for all these developing and developed countries which depend on exports of primary commodities. Extension is thus an economical asset for countries wishing to maximize the benefits from the excellent reputation of many of their products in order to consolidate their markets and avoid illegitimate use by and identification of products manufactured outside their borders. (Addor and Grazioli 2002, p. 896)

The economic advantages offered by GIs, however, have tended with time to alienate local producers from their product and may prevent the due flexibility in order to keep track of changing conditions in the environment of production and

in the relevant know-how. *Terroir*, on the contrary, is a cultural concept, with scarce legal efficacy, enjoying far more flexibility with respect to the changing of specific environmental conditions and of the traditions of human tender.

The View from Science

Another approach to GIs seeks out to uncover their peculiar biochemical characteristics. Modern chemistry successfully identified chemical compounds such as water in terms of necessary and sufficient conditions based on a typical structure; can similar conditions be offered also for cheeses, teas, wines, spirits, and the like? A trend of research moving in this direction gained increasing credibility over the last 15 years (see Baxter et al. 1997, represents a pionieristic study in the field, moving from the analysis of Spanish and English wines). The idea is to pair a specific agricultural product to certain values of (bio) chemical compounds that are specific to that product, under the conviction that such values reflect the specific environmental conditions within which the product originated. For instance, Angus et al. (2006) have shown that wines made from grapes grown in different regions of New Zealand will be distinguishable, with a degree of accuracy of 80 % circa, based on the amounts of nine of chemical elements (Sr, Rb, Ni, Co, Pb, Mn, Cd, Ga, and Cs) that they contain.

Notwithstanding the difficulty of the enterprise, let it be granted that one day appropriate techniques will be in place to fully read the unique chemical structure of each sample of an agricultural product; how could such data be put to use in order to delimit the boundary parameters of a GI is still unclear. The complexity of the issue is not merely practical: the point is conceptual. An agricultural product is not just a chemical formula but an artifact, identified also via nonscientific aspects such as farming methods (e.g., organic) or the tools used to produce and package it. In other words, the identity of a GI, thus far, does not depend solely on its *natural* aspects but also on the *process* through which it is produced. As a forged painting and the original may not differ at all materially, while still being quite different artworks, so a GI cannot be equated to its material constitution: some aspects of its making are key to its identity. The upshot is that the chemical or biological data, which allegedly help fixing the identity of a GI, need be accompanied by some requirements as to the process of production.

G and I the Protection of Culinary *Milieus*

Despite the difficulties in ascertaining sufficient grounds to comprehend their conditions of identity, GIs arguably constitute an efficacious legal tool to prevent the exploitation of cultural *milieus* both within the country of origin of the product and at the international level. It is for this reason that, in recent years, some authors (on behalf also of GI producers) have argued for a strengthening of the international legal tools available to prevent infringements (cfr. Vittori 2010), such as an extension of the rights granted under Article 23 of the TRIPs – now limited to wines and spirits – to all GIs (cfr. Addor and Grazioli 2002; Das 2006). The rights would allow producers of specialty foods (as well as nonagricultural products) to see recognized the novelty of their produce, without the risk of unfair imitation. No doubt, such a scenario would open up new economic opportunities for many small producers in less affluent countries. In an optic of preservation and valorization of local traditions as well as promotion of small economic entrepreneurs, this seems a legal scenario with beneficial implications also from an ethical perspective.

On the other hand, according to some, GIs are trade-distorting legal tools; in the words of Josling,

> To some countries, GIs are an unnecessary and undesirable form of protection for producers in a particular region against competition from new entrants. If a type of product traditionally associated with a geographical region can be successfully produced in regions other than that which gave it its name, then any restriction on the competitive new product is likely to be resisted. If the new producer is located overseas then the restriction is presumably trade-distorting. (2006, p. 340)

There is indeed the possibility that some producers, working in a geographical area outside the one essentially associated with a GI, place on the market items comparable in terms of characteristics and quality to those items that are bestowed the GI label. When this is the case, the legal restriction imposed by the GI appears to be a simple branding measure, an obstacle to free trade. At the same time, it must be recognized that, in several occasions, new entrants operate in bad faith: they exploit the reputation on the market of a certain product by creating an imitation of lower quality.

GIs seem, then, the best measure so far devised to cope with those operating in bad faith. The question is whether they are an effective tool. Besides the practical difficulties of legally enforcing the rights associated with a GI at the national and international level, two additional drawbacks of GIs may be pointed out, one concerning the "boomerang effect" of GIs and the other regarding GIs and food authenticity. To begin with the former, in an initial moment, GIs empower producers of a local specialty with an exclusive right to a certain etiquette. As described above, however, in a successive phase, the attractive opportunity of a market exclusive product recalls also the attention of heterochthone investors and work labor, which may end up alienating the very initial producers from the good they initially wished to see protected. Thus, while Chianti Classico producers and workforce may have been initially locally sourced, the situation is now reversed, so much so that the original population involved in the production of this GI is now largely alienated both as a producer and as a consumer. This may be described as a "boomerang effect": a GI creates a brand representing a specific relationship between a people and a land, through which conquering new markets; renewed attention on the GI recalls heterochthone investors and workers, which end up transforming the production process in order to suit the new markets.

Secondly, GIs do not necessarily align with basic claims of product authenticity (see ▶ Authenticity in Food). For instance, while the environmental conditions and the practices of human tender of wineries in the Port region may drastically change to the point of suggesting to authoctones that the authenticity of the product was compromised, the GI would continue to support labeling the wines produced as authentic Port wines. Arguably, analogous circumstances have obtained with respect to a number of GIs, thus revealing the shortcomings of GIs as a legal measure protecting local food cultures. If, on the other hand, claims to a GI are justified in terms of the unique chemical composition of the produce, the authenticity of the process of production is left out of the identity of the product, thus removing from the picture the significance of human tender.

Summary

Geographical indications are among the earliest sorts of entities covered by intellectual property right in modern history, having been in usage since 1700s. Their legal enforcement today is regulated under Articles 22 and 23 of the Agreement on the Trade-Related Aspects of Intellectual Property Rights (TRIPs Agreement). From a metaphysical point of view, the identity of GIs may be accounted for under two alternative perspectives, one resting on the concept of *terroir* and the other based instead on distinctive biochemical characteristics of a product. Both accounts result problematic. Finally, the entry assesses the efficacy of GIs in protecting food *milieus*: while GIs are the best available legal tool to protect food *milieus*, they come short in preventing the alienation of local producers from their products as well as in ensuring the authenticity of a product.

Cross-References

- ▶ Authenticity in Food
- ▶ Food and Place
- ▶ Recipes

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Gluttony

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Synonyms

Drunkenness; Edacity; Gormandizing; Intemperance; Overeating; Overindulgence

Introduction

Gluttony describes either (a) the action of overindulging in food or drink or (b) a state of character in which one regularly overindulges in food and/or drink. Gluttony is recognized by most moral and ethical codes, except for the most ardently hedonistic, as a moral failing. While the term "gluttony" has etymological roots in Latin and Old French, the moral assessment of gluttony, in the Western world, goes as far back as the Ancient Greeks. Presented here is a brief historical sketch of the concept of gluttony as understood in the Western world. Changing conceptions of gluttony will be traced from Ancient Greek philosophers through the Judeo-Christian understanding of gluttony as a sin and to the way that gluttony has become intimately connected to moral judgments of fatness.

Ancient Greek Views on Gluttony

Plato (427–347 BCE) and Aristotle (384–322 BCE) are undeniably the most important and influential moral thinkers of the Ancient Western world. Both, as virtue ethicists, present normative theories of ethics in which gluttony, as overindulgence in food and drink, plays a unique role. The philosophical views of Plato and Aristotle are intimately tied, as Plato was Aristotle's teacher, yet their views on ethics (and therein their views of gluttony) are quite different. The relationship between Plato and Aristotle is possibly best captured by Raphael in his fresco "The School of Athens" ("Scuola di Atene") which was painted in the Apostolic Palace of the Vatican in the early sixteenth century. Here, surrounded by philosophers, mathematicians, and thinkers of the Ancient world, Plato and Aristotle stand side-by-side, at center stage, under a vaulted arch. Plato, holding a copy of the *Timaeus*, is pointing towards the heavens and the abstract world of the nonmaterial. Aristotle, holding a copy of the *Nicomachean Ethics*, is gesturing downwards, towards the material and scientifically understood world. While both Plato and Aristotle hold similar philosophical

ideas, they advance these theories in reference to radically different ends leaving their accounts of virtue, the human life, and gluttony related yet radically different.

Plato on Gluttony

Plato's understanding of gluttony, as a form of moral failing, can be found scattered throughout his writings, but his most influential argument is presented in the *Republic*. Plato's general understanding of the human life and its purpose can been grasped by looking at the famous Allegory of the Cave (*The Republic*, 1997, pp. 1132–1135). This allegory describes a group of prisoners held captive in an underground cave. The prisoners are tied down and forced to stare at shadows as they dance on the wall in front of them, spending the entirety of their lives seeing and understanding only these shadows. From among these prisoners, one is able to break free from their restraints, enabling them to turn around and see the fire which casts the shadows. Eventually this prisoner is able to climb out of the cave and into the sunlight where she can, for the first time, come to see the world in full vibrant color as illuminated by the sun. This allegory, for Plato, represents the life of the philosopher who, alone, can escape the trappings of the material world (comprised of false representations and epistemological missteps) and come to full knowledge of reality, life, and the good.

Plato's vision of life's purpose is intimately connected to his understanding of epistemology. For Plato, the material world is one of constant change and speculation. Knowledge is gained when the mind moves beyond the physical and material world to understand the immutable essences. For Plato, the highest function of humans is to be found in the mind, and the highest purpose of the mind is the acquisition of knowledge.

While Plato ultimately places all value and purpose in the pursuits of the human mind, he does account for the human body as it too has a purpose and must be understood ethically. For Plato, proper health, and therein the proper functioning of the mind, is essential for the philosophical goal of knowledge in that people are bound to their bodies and bodies act as vehicles of the soul. When the body suffers, or is put into an unhealthy state, the physical existence of a person will detract from their ability to achieve the highest purpose of knowledge. Thus, bodies and bodily health are necessary instrumental values for the achievement of knowledge. Individuals are required to tend to their bodies as a way of ensuring that the pursuit of knowledge is uncorrupted and undeterred.

Plato's understanding of gluttony, or overindulgence in food and drink, is explained through the virtue of temperance (Hill 2011). Temperance is the control of one's physical desires. The good life, or the life of knowledge, can only be pursued and achieved by controlling these desires and acting on them in the right way. Those who cannot control their passions towards food and drink are scorned by Plato, as these gluttonous individuals remain tied down and tethered, like prisoners, to their physical existence and are thus unable to properly pursue the higher faculties of reason. For Plato, when one allows their physical desires to control their life, their rational faculties become enslaved to their physical desires. These gluttonous individuals are denied the highest human pursuit of philosophical knowledge.

Broadly speaking, Plato's understanding of gluttony, as an overactive and overfed appetite, is presented as morally problematic because this overindulgence denies the flourishing of the higher faculties of the mind. Gluttony is the ultimate act of intemperance, the earmark of the ignorant and simple, and is to be avoided at all costs.

Aristotle on Gluttony

Aristotle's understanding of gluttony is somewhat similar to Plato's in that gluttony describes the actions of the intemperate person. Whereas Plato characterizes the highest good and the best life as a life of the mind in abstract contemplation, Aristotle conceives of the good life as the

complete flourishing of the totality of human capabilities such that happiness (*eudaimonia*) can be achieved. While Plato advances an ascetic view that the life committed solely to contemplation is the good life, Aristotle believes that contemplation must coincide with pleasure for the achievement of happiness.

Aristotle's teleological conception of life is outlined in Book I of the *Nicomachean Ethics*, and most of the rest of the book is devoted to the task of outlining, defining, and explaining the virtues and the way virtue is acquired. Aristotle's most important contribution to the tradition of virtue ethics is his description of moral virtues as an intermediate, or "mean," state which lies between two extremes, one of excess and one of deficiency (Aristotle, 1941, pp. 958–959).

Aristotle's condemnation of gluttony is explained as a failure of the virtue of temperance. Temperance is the virtue that governs the human capacity for pleasure regarding the physical body. While temperance governs the desires for sex and drinking, it also governs the desires for food. Temperance *qua* food, as the proper control of one's desires to eat, exists as a mean state intermediate between a vice of excess (where one desires food too much or in the wrong way) and a vice of deficiency (where one lacks a desire for food). Through critical self-reflection and reinforced positive actions, done under the guidance of practical reason, individuals can habituate themselves to develop a moderated desire for food where food is desired in the right way, at the right time, in the right amount, and for the right reasons. Aristotle notes (Aristotle, 1941, p. 982) that there are few people who suffer from a lack of desire in regard to temperance *qua* food and drink, and thus the moral concerns regarding food-related desires are, by and large, worries about an overwillingness to indulge.

The failure to properly control one's desires for food and drink is a moral harm for Aristotle in that an overindulgent person's desires will prohibit her from habituating other virtues and achieving the complete life. In one respect, the overindulgent person will harm their health, and without health one cannot pursue all the goods of life and will thus fail to achieve true happiness. In another respect, the overindulgent person's uncontrolled desires for pleasure will lead them to states of ignorance. These states of indulgence and ignorance, while suited for grazing animals (Aristotle, 1941, p. 938), do not describe the full flourishing of human life as humans possess faculties beyond physical appetites. Thus, in some ways, Aristotle mirrors Plato's view of the instrumental good of the body and health and notes the ability of unchecked physical desires to distract from the rational goods of the individual. Yet while Plato privileges the life of the mind as the only pursuable good, Aristotle wants to conjoin this with an evaluation of pleasure as important and good in many respects. Plato seeks to transcend the body and views the material existence of humans as a regrettable yet necessary aspect of life, while Aristotle seeks to fulfill the body under the guidance of reason as both the rational and physical aspects of life contribute to one's happiness. For Aristotle, the pleasure that one draws from food is a good to be pursued, and physical pleasure is an important aspect of life when rationally guided, controlled, and moderated. Gluttony then is a form of unrestrained desire which harms the individual in their pursuit of the complete life.

Gluttony in Christianity

The most iconic understanding of gluttony in the Judeo-Christian world is tied to its inclusion as one of the so-called seven deadly sins. While capturing certain moral and ethical proclamations found in the Bible, the identification of gluttony as a moral transgression carries with it not only a theological message of moral failure but also a long history of artistic and literary depiction.

The seven deadly sins, of which gluttony is one, trace their origin to the Greek monk Evagrius Ponticus, who in the fourth century outlined gluttony as one of the "eight principle temptations" (also known at the "eight patterns of evil thought"). John Cassian, Evagrius Ponticus' student, translated this work into Latin and brought the "eight temptations" to Western

Christendom. Two centuries later, in 590, Pope Gregory I revisited and revised these eight patterns, reducing them down to a list of seven and issuing them as "the seven deadly (or mortal/capital) sins."

Interest in the seven deadly sins was popularized in the fourteenth century when Dante Alighieri, in his *Divine Comedy*, immortalized the seven deadly sins by enshrining them as levels of hell. Gluttony is described by Dante in Canto VI where, in the third level of hell, gluttons are tormented by Cerberus as they wallow and float like swollen logs in a putrid bog of filth. Following Dante, in the fourteenth, fifteenth, and sixteenth centuries, theologians assigned specific demons to the seven deadly sins, claiming that either Beelzebub or Belphegor (each was one of the so-called seven princes of hell) was the demon responsible for tempting people into the sin of gluttony. Late Medieval and Renaissance artists, such as Nardo di Cione, Taddeo di Bartolo, and Hieronymus Bosch, visually depicted sin (and its related demonology) in paintings, sculptures, and reliefs, often portraying the glutton as a ravenous and hedonistic individual plagued by horned demons and physically suffering at the hand of their desires.

This history of the Christian sin of gluttony, as intertwined with theological and artistic depictions of hell, perdition, and demons, has resulted in gluttony being identified with highly visual and visceral images of damnation and lecherous corruption. Interestingly, this visceral imagery of gluttony is not found in the Bible, although the scriptures do present gluttony as moral transgression.

At the root of the identification of gluttony as sinful and wicked is the way gluttony acts as a form of idolatry. Individuals who overindulge their appetites for food or drink value too highly the pleasures they receive from these indulgences. These pleasures become the object of striving and individuals who overindulge shift their focus from the divine to objects of consumption. The gluttonous person, whose eyes are looking towards their belly, is described as one who has their mind set on only earthy things (Philippians 3:19 New International Version). This shifting of focus, from the divine to the worldly, is way of replacing a striving towards God with a worship of all things physical, pleasurable, and material. For the gluttonous, the quest for holiness has been exchanged for the satisfaction of desires, whereas food and drink are worshiped and consumed in excessive amounts as if these consumable goods were of the highest purpose. In this way, gluttony becomes the practice of a life lived in devotion to pleasure and not God. Idolatry, and the worshiping of anything above God, is a cardinal sin in that the conception of divinity in Christianity is singular and monotheistic. God, and God alone, is to be worshiped. The centrality of this claim is repeated throughout scripture and is, famously, the first of the Ten Commandments handed down by God to Moses (Exodus 20:3, Deuteronomy 5:7 New International Version). While idolatry is most often associated with worshiping so-called false gods, it also captures the possibility of worshiping objects as if they were God. Gluttony, as a way of turning away from God and towards pleasure, makes a false idol out of food and drink and thus pulls one into the false worship of a false god.

Three things should be apparent in Christianity's assessment of gluttony as a form of idolatry. First, the assessment of gluttony as a form of idolatry does not privilege gluttony as either the ultimate form of false worship or a variant of false worship which is uniquely pernicious. Similar claims of idolatry can be found in scripture about the worship of money and the associated sin of greed or avarice (Matthew 6:24 New International Version) and the worship of sex and the associated sin of lust (1 John 2:15–16, Matthew 5:28 New International Version). Gluttony is merely one of many ways one may overindulge in earthly pursuits such that one comes to worship objects rather than God. Second, it is noticeable that the root of the negative assessment of gluttony found in Christianity is not a condemnation of fatness. The sin of gluttony is not rooted in aesthetic judgments about beauty or body shape, and social stigmas and assumptions about physical standards of taste have no bearing on the prohibitions on gluttony. Gluttony is the shifting of

devotion away from God, not a proclamation of a specific vision of beauty standards. Thirdly, the condemnation of gluttony in Christianity is not a judgment of the baseness of food and drink in-and-of-itself. In fact, food and drink plays an important role in Christianity. Most notably, food and eating is at the center of the sacrament of communion, the miracles performed by Jesus often involved food and drink (such as turning water into wine at the wedding in Cana, the feeding of the 5,000 from fishes and loaves, the miracle of the draught of fish, and the catching of the 153 fish), and the consumption and sharing of food (both as a religious practice and an act of charity) is a common motif in biblical stories and parables. Scripturally, Christianity does not advance a conception of asceticism or the ascetic life. The moral concerns about food focus on the temptation to supplant the value and prestige of God with a value of pleasurable consumption and are thus not a condemnation of all things physical.

Gluttony's Nineteenth Century Connection to Fatness

Historical understandings of gluttony were, by and large, disconnected from an assessment of body types and body shapes. The immorality of gluttony before the mid-nineteenth century had little to do with fatness and was rather centered on either (a) describing the harmful effects of uncontrolled desires or (b) the ability of unrestrained behavior to distract one from the proper worship of the divine. This assessment has shifted. Since the mid-nineteenth century, gluttony has come to be associated with social, aesthetic, and medical judgments about fatness.

Up until the mid-1800's, fatness (in the Western World) was, for the most part, linked to wealth, health, and prosperity (Schwartz 1986). Fatness was a luxury of privilege and indicated a lifestyle above the toil of physical labor and beyond a meager existence of subsistence eating. While individuals, such as Daniel Lambert (a famous British man who weighed in excess of 700 lb), who were "excessively fat" were mainstays in spectacle shows (or so-called freak shows), fatness was, to a point, socially accepted as a status symbol. In the mid- to late-nineteenth century, this social image began to change in conjunction with growing critiques of opulence and wealth. As social and economic critics began to target privileged classes and question the justice of accumulated wealth, fatness transformed from an image of prosperity and high social status to one of corruption, excessive opulence, and oppression. Industrialists and capitalists, by the 1920s, were being described as "fat cats" and unjust opulence began to become associated with bloated laziness and decadent lifestyles (Ayto 2006).

In conjunction with the social shift in the understanding of fatness came a change in the medical understanding of body shapes. Up until the mid-nineteenth century, medical professionals were not concerned with the health effects of fatness and rather focused the perils of those diseases that caused chronic wasting (Farrell 2011). As social attitudes towards fatness shifted, so too did medical attitudes. The mid-1800s saw a sharp rise in "medical" treatments for fatness, some from medical professionals and others from savvy entrepreneurs looking to capitalize on anti-fat biases. Dietary weight loss cures were marketed in magazines and traveling salesmen hawked miracle weight loss devices. By the early 1900s, fatness had become a medical concern, and medical opinions about body shape and size had become a central preoccupation (ibid).

The shifting of social and medical attitudes surrounding fatness has persisted to the present day. Fatness is still the subject of ridicule, particularly in regard to women, as well as a continued source of spectacle, as seen in the plethora of reality TV shows concerning weight loss challenges for the fat. Additionally, fatness has remained the focus of health campaigns as seen in First Lady Michelle Obama's "Let's Move" campaign which targets fatness and obesity in children. These continuing negative attitudes towards fatness have resulted in what some call "anti-fat bias."

As anti-fat bias has persisted and grown, so too has the social view of gluttony. Individuals who are labeled as fat have become stigmatized as gluttonous and edacious. Research into social

perceptions of fatness and gluttony has revealed that gluttonous overeating is perceived as the cause of obesity and fatness. Joint research from the University of Virginia, Yale University, and Oxford University revealed that test subjects displayed not only explicit and implicit anti-fat biases but connected these biases to ascribed gluttonous overeating done by "overweight" people (Teachman et al 2003). Researchers found that while providing information demonstrating a medical cause of fatness and obesity (such as an established thyroid condition) lessened the negative judgments of test subjects towards fat people, subjects (a) still negatively judged fat individuals even with medical or genetic conditions which predispose them towards larger body types and (b) still identified overeating as the cause of obesity both in these individuals as well as in society writ large.

What this study helps identify, along with other similar studies (see Chlouverakis 1975), is the assumption that gluttony is the cause of fatness. Gluttony has become a post hoc explanation for fatness, and the negative assessment of this fatness can be traced to the perception of gluttonous indulgence. For the tested subjects, despite being confronted with evidence to the contrary, gluttony is the only possible reason that someone could become fat. Since, for these people, being fat is bad, gluttony, as the cause of fatness, is also bad.

If this research data is true, what it indicates is that the persistence of fat biases influences, socially and culturally, the way individuals view gluttony both in cases where the gluttony is real and where one erroneously perceives it to be the cause of fatness. In this way, gluttony has become not only intimately tied to social norms about body shape but the way in which anti-fat bias is grounded and explained in negative moral assessments. In comparison to historical views of gluttony, this modern understanding of gluttony is now tied to social and cultural judgments of fatness.

Leaving the Language of Gluttony Behind

Recently there has been a trend, in both social and medical communities, to move away from the language of gluttony in favor of new language, and therein new understandings, of overeating. For some, the language of gluttony has become antiquated and undesirable. The reason for this change is that gluttony, historically, described both the action of overeating (and more broadly overconsumption) and the excessive desires which caused overeating. In this way, gluttony describes both an action and its source. In describing an individual as gluttonous, the person's actions of overconsumption are traced back to a relatively simplistic picture of desire where one overeats because they desire food too much. The implication of this understanding is that actions of overeating always have a common origin in an excessive desire for food. For many, this understanding maligns the physical and psychological complexities which lie behind the actions of those who compulsively overeat.

Contemporary medical professionals researching eating disorders prefer the language of "compulsive overeating" to the language of gluttony. Research into bulimia (and also anorexia nervosa) has revealed that this eating disorder cannot be understood or reduced to overactive desires for food. Understanding eating disorders as merely excessive desires for food "completely ignores the reality of these conditions" (Johnson 2004). Psychologists have shown that eating disorders, by and large, stem from "a fragile sense of self and a core belief that life is uncontrollable" such that individuals with eating disorders use food and body weight as an "arena in which they can establish a feeling of control over their lives" (ibid). Understanding that the overconsumption of food found in certain forms of eating disorders stems from psychological states beyond merely an overactive appetite leads these researchers to jettison the language of gluttony. Labeling these eating disorders, variants of gluttony fails to capture the complexity of these conditions and perpetuates an anemic understanding of their cause(s).

Paralleling this move in the medical community, recovery programs aimed at helping individuals who are facing issues of overconsumption have jettisoned the language of gluttony in favor of "compulsive overeating."

Overeaters Anonymous (OA), a 12-step program modeled on the principles of Alcoholics Anonymous (AA), opted for their current name during their first national conference in 1962. At this meeting, participants rejected a proposal to call the emerging organization "Gluttons Anonymous" (A Step Ahead 2011). This choice of name typifies this organization's understanding of gluttony. The compulsion to overeat is not the product of excessive desires for food but rather a myriad of psychological compulsions of varied origins. Sharing a common view with other recovery organizations such as AA, OA members seek to identify the unique circumstances and compulsions which cause them to overindulge. For OA, it is not the case that similar indulgent actions shared among different individuals are indicative of a common and shared underlying cause, desire, or state of character. Each person who suffers from compulsive overeating does so for specific and unique reasons. Individuals in OA (in a way similar to people in AA) have chosen to distance themselves from the historically situated understanding of "gluttony," preferring a more robust understanding of the actions of overeating which extends beyond the confines of the traditional discourse.

In this way, the medical, social, and moral landscape of gluttony has, again, changed. While the medical and social understandings of overconsumption have intentionally distanced themselves from the language and history of gluttony, the physical, medical, and ethical dimensions of health, compulsion, and responsibility remain. To some this might mean that gluttony, as a term and a concept, has become outdated, archaic, and useless (Su 2013). Yet to others it means that the moral and ethical issues surrounding gluttony have been, and need to be continually, expanded from its traditional roots into broader discussions of psychology, physiology, and addiction.

Summary

Dominant Western views of gluttony, and the assessment of gluttony as a moral failing, have undergone many changes. In Ancient Greek virtue ethics, gluttony was chided as the manifestation of errant desires and proclaimed a barrier for the achievement of the good life. The emergence of Christianity altered this view and transformed gluttony into a form of idolatry where gluttonous individuals are rebuked as having shifted focus from the divine to the sinful pursuit of worldly pleasures. Moral views of gluttony again shifted in the mid-nineteenth century and have become intimately tied to social views of fatness and body shape. As attested to by experimental psychology, gluttony has become the perceived cause of fatness. The persistence of anti-fat biases have resulted in gluttony being identified as a moral failure which relates to unhealthy lifestyles and aesthetically displeasing body shapes. In addition to historical changes in understandings of gluttony, some have chosen to abandon the language of gluttony as a means for exploring the moral harms of overconsumption. Research into overeating as it relates to addiction and eating disorders shows that the language of gluttony fails to capture the psychological complexity of the compulsion to overconsume.

Cross-References

- ▶ Alcohol as Food and the Good Life
- ▶ Christianity and Food
- ▶ Eating Disorders and Disturbed Eating
- ▶ Ethical Assessment of Dieting, Weight Loss, and Weight Cycling
- ▶ Plato and Food
- ▶ Virtue Theory, Food, and Agriculture

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GM Food, Nutrition, Safety, and Health

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Synonyms

Agriculture; Ethics; Food science; GM crops; GM foods; Risk; Socioeconomics

Introduction

Research on and development of genetically modified organisms (GMOs) has been facilitated by modern biotechnological techniques. The first GM plant, a tobacco plant expressing an antibiotic resistance gene taken from a bacterium, was grown in a greenhouse in 1983. Since then a variety of GM crop plants have been released into agricultural fields. At present, herbicide-resistant crops are the most widely grown GM plants (approximately 70 %). These GM crops contain genes that enable them to degrade ingredients in herbicides and imply that farmers can control weeds by herbicides as well as low tillage practices. Genes from the *Bacillus thuringiensis* have been inserted in plants to make them resist insect attacks and are the second most popular GM crops at the market together with plants that contain stacked genes, a combination of herbicide tolerance and insect resistance. At present, there are a huge interest and research initiated to achieve disease tolerance, altered compositions, stress tolerance (especially related to drought tolerance), as well GM plants that can be used to produce pharmaceuticals and be used for environmental remediation.

Applications of GMOs offer prospects for better human and/or animal health, food improvement, new ways for production of biofuel and fiber, as well as environmental protection. The cultivation of GM crops agriculture has, however, also been followed with concerns. Opposition and scepticism to GMOs has been especially prominent in Europe, where the introduction and use of GMOs have become subjects of scientific and public discussions and controversies. There are divergent opinions on whether GMOs and GM food are representing risks of adverse effects on health and the environment. Part of the controversy over GMOs may originate in the novelty of the genetic modification techniques, the time before health and environmental impacts can be assessed, and the differences in value commitments, ranging from safety to social and sustainability issues (Melo-Martin and Meghani 2008).

In this entry, the technology behind genetic modification will be described together with a brief presentation of innovations with an emphasis on new events and usage. Concepts for risk assessments and the main concerns for safety, health, and nutrition will be explained together with a brief discussion of the importance to include assessments of socioeconomic effects and the sustainability by the use and introduction of GM crops.

GM Plants and the Technology Behind Genetic Modification

From the very simple GM plants with only one inserted transgene, the world is now facing plants containing multiple genes from several different species, encoding not only the trait of interest but also genes that enable the plants to express different traits.

The technology in use involves the transfer of genes from, among others, microbes into plants and includes laboratory methods used to identify and isolate DNA fragments or genes from one organism and insert into a vector (usually a bacterial plasmid) and transfer of the vector combination into a host cell (usually with help from a gene gun or by injection). This has evolved from the simple insert of, for instance, one gene of a *Cry* protein (derived from the bacterium *Bacillus thuringiensis*) and to what today is termed stacked GM plants, containing several different genes expressing both insect resistance and different kinds of enzymes leading to resistance to several kinds of herbicides at the same time (de Schrijver et al. 2007). This innovation trajectory has been driven by the increasing development of resistance among pest insects as well as evolving development of resistance among weed towards the herbicides in use.

Herbicide Tolerance

The most used approach is the development of glyphosate-tolerant crops. Glyphosate kills plants by blocking the enzyme EPSPS, important for biosynthesis of aromatic amino acids. In the glyphosate-tolerant plants, one has introduced a technology into the plants, targeting key enzymes in the metabolic pathways of the plants, like the EPSPS enzyme, and made it glyphosate tolerant.

The cultivation of herbicide-resistant crops has become a challenge due to the development of herbicide-tolerant weeds. One solution to this has been to introduce genes that have other ways of detoxifying the herbicide (Benbrook 2009). Another option is to use a combination of herbicides to give a more effective treatment. The target protein of the herbicide can also be modified in ways that in the end makes it unaffected by the herbicides used.

Pesticide Resistance

The second most used approach is development of insect-resistant crops, dominated with what has been termed Bt plants containing *Cry* protein from the bacterium *Bacillus thuringiensis*. The main targets are insect orders considered as pests in fields such as Lepidoptera, Diptera, and Coleoptera. When the insect ingests the *Cry* protein, the protein is converted to its active, toxic form. The toxin binds to receptors on the midgut epithelial cells, which subsequently are followed by development of pores in the cell membrane. The development of pores affects the regulations of osmotic pressure, and this disruption of the digestive system causes the insect to starve and eventually die.

The intention behind Bt crops is to avoid using chemical insecticides to control pests in agriculture. From the onset, there was a concern that Bt crops could harm nontarget insects and that target insects could develop resistance. Bt plants enable a constant exposure, potentially creating an evolutionary pressure for pest resistance to the toxin. Although management strategies have been implemented as refugees, areas surrounding the fields with non-Bt crops to facilitate nonresistant insects to survive and establish a susceptible population, pest insects have developed resistance (Gassmann et al. 2011). There are many different options when it comes to solving the upcoming challenges of resistance development. It has, for example, been identified around more than 100 different variations of Bt toxin that can be used in combinations to reduce the speed of development of resistance in pest insects. Other insecticidal compounds as defense proteins are also under investigation for being used in future insect-resistant plants.

Analogy to the History of Antimicrobial Resistance

The history of resistance development between weed and pests by cultivation of GM plants is starting to look like the history of development of antibiotic resistance in pathogenic bacteria.

With antibiotic resistance, the answer to the increase in resistance development has been to decrease the use of the causing agent – not to increase it. As it is now, the development of tolerant weeds and resistant pests is forcing farmers to increase their use of herbicides and pesticides as well as the use of multiple applications to overcome this evolving challenge. There is crucial need to consider new and more constructive ways of dealing with the development of tolerance and resistance. The problem will not disappear with the emerging stacked GM plants and herbicides and pesticides in use, unless there is a change in management practices.

Food, Feed, Fuel, and Fiber

In 2012, the most planted GM crop was GM soy (approximately 80 mill acres planted), followed by GM maize, cotton, and oilseed rape (ISAAA 2013). In addition, GM papaya and sugar beet are grown commercially in the USA and tomato and peppers in China. GM soy, maize, cotton, and oilseed rape are crops that can be used for different purposes as, for example, food, feed, fiber, and fuel. At present, most GM plants are used in food and feed around the world either as the plant itself or in processed form. GM cotton is used both for fiber and animal feed, while especially GM maize, soy, sugar cane, and oilseed rape are relevant as sources for producing bioethanol. Research has also been initiated with trees as GM poplars for pulp and biofuel production.

Innovation/New GMs

Future releases of GMOs may be plants that will be intentionally designed to be physiologically or nutritionally significantly different or contain a number of different transgenes (stacked events). Traits resulting in climate tolerance and enhanced benefits for the consumer such as better taste, longer shelf life, and increased nutritive value may be expected. The future of GM and innovation in plant improvement technologies (agriculture) will be affected by the future needs of our increasing populations.

The food industry has already innovated new GM plants containing higher amounts of compounds that is heavily used in the food industry. This includes new traits for industrial processes as starch from GM potato and oilseed rape with changed content of fatty acids.

As a response to consumers request for more nutritious food, there are several initiatives using genetic modification for developing "functional food" with either higher levels of nutritious substances already found in plants (as fatty acids) or plants that produce substances not found in plants (as omega-3 fatty acids). The most famous example of GM plant with substances beneficial to human health is the Golden rice developed by Ingo Potrykus and colleagues. The Golden rice contains beta-carotene, a metabolic precursor to vitamin A. The intention behind the development of the Golden rice is to prevent vitamin A deficiency in especially Southeast Asian countries. The health and benefits of this rice addressed is, however, controversial. For example, it has pointed out that beta-carotene may increase the risk of cancer in smokers and asbest workers (Omenn et al 1996). That the early version of the Golden rice produced to low amounts of vitamin A to even tackle vitamin A deficiency. New and improved versions of Golden rice have been made, but the bioavailability of vitamin A from these plants has also been questioned (Botha and Viljoen 2008). And as of today, Golden rice is still not commercialized.

At present, there are a huge interest and research initiated to achieve new GMs, and this also involves new approaches as using nanotechnology, RNAi technology, and synthetic biology that can be used separately or in combinations. Whether the introduction of new GMs and new technologies will translate into greater health and environmental risks than present is not clear.

Regulatory Frameworks

There is international law that covers regulation of GMOs, which includes the WTO (SPS and TBT)

and the Cartagena Protocol on Biosafety under the Convention on Biological Diversity (CBD). In addition, there is international soft law, made up of the emergent standardization on the level of protection together with the decisions taken by individual countries on risk assessment and risk management based on the precautionary principle among other things.

There are national laws, with some of the most marked differences between the USA and Europe. Regulation varies in a given country depending on the intended use of the products, and in general, GMOs can be notified for import and processing, for food, feed, and industrial use and/or cultivation. A GMO application can cover one or more of the different categories.

Europe

The EU has enacted some of the most restrictive rules when it comes to regulatory frameworks for GMO assessments, matched only by Norway's GMO legislation. The biosafety regulatory framework follows the GMO development process from research in contained use to deliberate release and placing on the market; to labeling and traceability of GMOs as food, feed, or for processing; and to transboundary movement. Risk assessment in the EU is conducted via the European Food Safety Authority, EFSA, who coordinates scientific committees, which provide advice to decision-makers. The different regulations are the Deliberate Release Directive where the objective is the protection of human health and the environment, and it is based on the precautionary principle, and the GM food/feed regulation where the objective is the protection of human and animal's health and the environment. It also ensures transparency, so that consumers are aware of the GMO content of a product. Further, the regulation on traceability objectives allows for the control and monitoring of GMO production and the marketing chain, and the regulation on transboundary movements (export and import) of GMOs in the EU implements the obligations under the Cartagena Protocol on Biosafety. It states that no export of GMOs destined for environmental release can be carried out by any European exporter without the advanced informed agreement from the potential importing country.

Norway must in addition to the criteria of health and the environment heed the criteria of social utility and sustainable development. The purpose of the Norwegian Gene Technology Act (No. 38/1993) is to ensure that the production and use of GMOs take place in an ethically justifiable and socially acceptable manner, in accordance with the principle of sustainable development and without adverse effects on health and the environment. The ethical criterion as well as the wording on socioeconomic concerns of EU Directive 2001/18 may also have some opening for inclusion of issues beyond health and environment (EFSA 2011).

USA

The USA has far more GM crops on the market than any other nations, and their regulatory systems with respect to GM foods are organized under existing statues design for invasive plants, chemical pesticides, and food additives. Hence, in the USA, the use of recombinant DNA techniques per se would not trigger any special regulatory consideration. These policy directives led to the doctrine that later became known as the "substantial equivalence" (Freese and Schubert 2004). The federal statutes that are used to regulate the products of agricultural biotechnology give primary jurisdiction to three agencies: the Food and Drug Administration (FDA), the Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS), and the Environmental Protection Agency (EPA).

In general, technical experts consider the safety of GM crops on a case-by-case basis in line with the concept of substantial equivalence. The substantial equivalence approach entails that the chemical composition and some biological characteristics of a GMO and its unmodified counterpart is compared with the purpose to identify if there are some relevant changes that need to be further assessed. Furthermore, the US risk-based regulation does not as the European regulation involve ethical and social factors in their risk evaluation.

Cartagena Protocol

The Cartagena protocol on biosafety is an international agreement that seeks to establish an international framework for safe management of all potential uses of GMOs (LMO is the term used in the protocol) that could affect biodiversity. The protocol, which is a supplement under the Convention of Biodiversity, went into force in 2003. The objective of the protocol is to contribute to ensuring an adequate level of protection under transboundary movement, handling and use of LMOs that may have adverse effects on the conservation and sustainable use of biological diversity. Risks to human health are also included. Moreover, the parties may take socioeconomic consideration arising from the impact on the conservation and sustainable use of biological diversity into account.

By March 2013, 166 countries have signed the protocol; however, the main producing countries as the USA, Canada, and Argentina are not at present signatories.

Risk Assessment

Genetically modified plants, such as crop plants intended for food and feed or release into the environment, have to undergo risk assessment prior to marked authorization in many countries. In most countries, governmental employees are responsible for the performance of regulatory risk assessments in accordance with international and national laws. In general, the safety assessment of GM food and feed should be assessed in a case-by-case basis, and it should not be possible to make general statements on the safety of all GM foods.

The main lines of arguments or principles applied in GMO assessments can be divided into three broad categories: environmental, health, and social concerns. When it comes to potential health risks associated with GM crops for human or animal consumption, concerns about increased resistance to antibiotics, toxicity, and allergenicity have arisen. In general terms, the safety assessment of GM foods should investigate toxicity, allergenicity, specific components thought to have nutritional or toxic properties, stability of the inserted gene, nutritional effects associated with genetic modification, and any unintended effects which could result from the gene insertion (WHO 2002).

Antibiotic Resistance

Antibiotic resistance is a highly efficient tool for practicing GM techniques because it easily allows the scientist to identify the cells that are expressing the cloned DNA and to monitor and select for the transformed progeny. The selectable marker gene is usually co-transformed with the gene of interest and can therefore be transferred to other organisms. In the case of antibiotic resistance markers, there is a fear that the presence of these markers in GM crops could lead to an increase in antibiotic-resistant bacterial strains in general and that the antibiotic resistance genes should be transferred to a pathogen (VKM 2005).

While Norway, when assessing cases of antibiotic-resistant GMOs, bans the production, import, and sale of all GM products that contain genes coded for antibiotic resistance, the EU does not. Generally, selectable marker genes are not required, and methods are being developed to create marker-free plants.

Allergenicity and Toxicity

There has been an increased focus on health/toxic effects associated with not only the introduction of a foreign gene but also the effects associated with herbicides used with GM crop cultivation. Also, since the prevalence of allergic diseases has been increasing continuously, the question if GMOs exhibit increased allergenicity has been raised. There are studies today that show that GM crops do have the potential to cause allergenic reactions, due to the introduction of potential foreign allergens, to potentially upregulated expression of allergenic components caused by the modification process or to different means of exposure (Freese and Schubert 2004; Spök et al. 2005).

In the EU, the assessment of the allergenic or toxicological potential is required for marked authorization of GM crops. However, very often the applications only contain arguments

supporting why the GM plant does not present any allergenic or toxicological risk, and no experimental work to assess the allergenic or toxicity potential of the GM plants is included. The most frequently used arguments for allergenicity assessment are "the source of the novel protein does not derive from a known allergen source, lack of sequence homology to known allergens, the novel protein can be easily digested, and the inserted gene is expressed at low levels."

For toxicity assessment, the most frequently used argument is very often based on the general "weight of evidence approach" consisting of history of safe use, lack of structural or functional relationship to proteins that adversely affect human or animal health, low expression level of the protein in the grain, rapid digestion of the protein in mammalian simulated gastrointestinal fluids, and lack of acute toxic effect to mammals.

Very often, biotechnology companies do not test the transgenic protein actually produced in their engineered crops. Instead, for testing purposes, they make use of a bacterially generated (usually *E. coli*) protein that may differ from the plant produced one. Many of the posttranslational modifications (PTMs) differ between species, tissues, stage of development, and according to environmental variables such as temperature and light intensity which makes it important to test the transgenic protein actually produced in the engineered crops and not the surrogate protein (Gomord et al. 2005; Küster et al. 2001).

In order to scientifically address the potential health effects of a GM plant, it is necessary to have access to tests, preferably on mammals. Mammalian feeding trials have been usually but not always performed in applications in order to obtain commercialization for GM plant-derived food or feed (EFSA 2008). There is an ongoing debate regarding the necessary length of mammalian toxicity studies that should be included in a risk assessment before a GM plant product is released on the marked for food/feed consumption.

There are many in vitro systems (such as usage of human cell cultures) that can be used to assess relevant risks regarding allergenicity and toxicity, testing in such systems not required today. In addition, new methodological toolboxes, such as genomics, proteomics, and metabolomics, have been developed to cope with complex interactions, the cooperation and coordination of multiple genes, and the dynamics of total genomes. These developments opens up for new possibilites and will have future implications for biosafety assessment of GMOs (Heinemann et al. 2011).

The Precautionary Principle and Approach

The role of the precautionary principle and approach in risk assessment and management of GMO use and release is a subject for scientific and public discussions. There has been a shift in the debate from how to apply the precautionary principle into elaboration over what a precautionary approach might entail. A precautionary approach to GMOs requires a renewed look at the science underpinning risk assessment and management of GMO use and release and entails an awareness of that there is a difference between risk and uncertainty. This also implies that there is a need to identify practical means for a precautionary-oriented research design and to explore the role of precautionary motivated science in GM policy and research decisions.

Sources of Information

Most assessments and biosafety data are produced by the GMO applicant and submitted to the regulatory authority together with the technical details of the products as well as responses to other requirements, often with portions labeled as confidential business information (CBI). Data that are considered to be CBI (e.g., insert sequences, toxicology and allergenicity studies, environmental interaction) are not accessible and can therefore not be scrutinized by others than regulators (Nielsen 2013). With most of the data submitted by the companies to the regulatory authorities being considered as CBI, independent scientific studies concerning potential toxic effects/health risks of GM crops for animals or humans are severely lacking from the scientific

literature. As showed by Domingo (2007), few studies (most of them being short-term studies) have been conducted until now. In 2012, Séralini and coworkers published that herbicide-tolerant GM maize and the herbicide Roundup were toxic to rats. The controversy that followed this publication illustrates the need for long-term studies of health effects by GM consumption.

GM crops are grown in agriculture fields and may have impacts on biodiversity within the fields and in the surrounding. Some scientists have raised concerns regarding the spread of transgenes to wild or weedy relatives, the impact of GMOs on nontarget organisms, the accumulation of *Bt* toxins in the soil, and adverse impact of GMOs on insects (such as bees), nematodes, and birds, all of which either consume GMO seeds or their by-products or are present in glyphosate-saturated soils. These are all areas of concern where additional studies are needed to gain a fuller understanding.

In general, it has been argued that there is a need to achieve a more transparent assessment process, where it will be possible to get access to information and raw data as well as testing material. A more open process will also allow for testing and verification by other institutes and scientists and hence provide broader assessments of the risks and uncertainties involved.

Monitoring and Labeling

According the EU Directives, the applicant has to elaborate plans for post-market monitoring (PMM) of the GMO. The purpose of monitoring is twofold, firstly to confirm assertions made in the risk assessment regarding the occurrence and consequences of potential adverse effects by introduction of the GMO or its use, so-called case-specific monitoring, and secondly to identify the occurrence of unanticipated effects on health or the environment of the GMO, termed general surveillance monitoring. This is a challenging task, for example, at the European level, there are different regions and a variety of agroecosystems with differing protection, environmental, and socioeconomic goals.

To monitor, one needs historical data that can only be provided by baseline information and indicators. Such data may relate to characteristics of agriculture practices, ecological conditions for farming systems, and ecosystem functions. In many countries, there are established environmental monitoring programs that may provide baseline information; however, unwanted health effects may be more difficult to identify. When monitoring for the health effects of a GMO, we have to know when, what, and how much of a GMO was eaten and for how long which means that exact labeling for all GMO components is important. And also, in order to systematically assess the impact of any GMO on health or the environment, one must be able to answer the questions, "is the GMO present in the material of interest?" and "how much of it is present?" which means that analytical methods are important.

To have an actual free choice on what you eat also involves that you know what you eat (Thompson 2007). One cannot identify GMO products barely by looking at it; thus, one is dependent on proper labeling to do an active choice. The concern for human and environmental health, animal welfare, and biodiversity has caused evolving demands for labeling of GMO products. Hence proper labeling is necessary for enabling consumer choice and for traceability in case of unforeseen effects. The EU has GM food and feed regulations that allow a threshold of 0.9 % for presence of EU-authorized GMO in cargo or food and feed samples. In contrast to the EU, the USA has no GMO thresholds or obligatory GMO labeling. Industry should take an active part of this, especially since labeling in general of food products increases the trust of consumers towards food industry.

Sustainability and Socioeconomic Aspects

The issue of sustainability, social, and ethical aspects of gene technologies and the use of GMO is often a part of the national and

international debate. Some countries consider some of these aspects in their regulations and some not.

Recently, there has been an increase in interest in defining potential or observed socioeconomic impacts of GM crops. To get an improved understanding of socioeconomic aspects by producing GMOs, there is a need for identification of monetary and nonmonetary implications at farm and community level, impacts on sociocultural and institutional context of GM crop introductions, as well as elaboration of protection goals in relation to socioeconomic welfare.

The Brundtland Commission defined the concept of sustainable development in the following way: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987).

In a report by Rosendal and Myhr (2009), it was found through an analysis of the scientific literature that very little experimental research has been carried out to identify how GM crops in practice affect sustainability and societal issues around the world. Accordingly, the author's emphasis the need for research on how GMOs affect sustainability and socioeconomic aspects in countries that grow GM crops and in those that import GM-based products. Moreover, the scepticism against GM in food production within Europe has shown that consumer preference and acceptance are needed to be taken much more seriously (Thompson 2007). The cultural significance of food is closely attached to concepts as naturalness, religion, ethics, and tradition, which are societal aspects that need to have a much more important role.

Summary

GM plants and products are at present used as food and feed around the world. GM plants are also increasingly used for fiber and in biofuel. Most of the commercial varieties are developed to provide tolerance against herbicides and resistance against pest. There are initiatives for development of new GM plants that may have changed nutritious value or other characteristics of interest for consumers. However, there are still unresolved questions with regard to potential risk to health and the environment. This has triggered a call for application of a precautionary approach as well as awareness to the broader issues as sustainability and socioeconomic aspects by introduction and use of GM plants. In the future, it is important that more broad assessments are carried out of GM plants; this is a responsibility that lies on the industry, on the scientific community, and on the governmental authorities.

Cross-References

- ▶ Agricultural Ethics
- ▶ Biotechnology and Food Policy, Governance
- ▶ Conservation Agriculture: Farmer Adoption and Policy Issues
- ▶ Climate Change, Ethics, and Food Production
- ▶ Environmental Ethics
- ▶ Functional Foods
- ▶ Transgenic Crops

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GMO Food Labeling

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Synonyms

Genetic engineering and food labeling; Genetically modified organisms; Transgenic crops and food labeling

Introduction

Genetically modified organisms (GMOs) are organisms made using recombinant DNA (rDNA) technology, also referred to as genetic engineering or gene-splicing. This technology involves using individual genes from a source organism to modify the living DNA of a target organism from a different species, which can be an animal, plant, or microorganism. Producers are thus able to overcome the species barrier, a natural limitation of traditional methods of genetic improvement such as plant hybridization. First developed in 1973, transgenic techniques have been used to create disease-, pest-, and herbicide-resistant crops, faster-growing animals, and plants with enhanced nutritional properties (NAS 2010; Blatt 2008).

Countries vary widely in how GM food products are labeled and regulated. Over 40 nations currently require all foods with GM ingredients above a certain threshold to be labeled, including all European Union (EU) countries and most Asian nations. In Europe, transgenic crops can be planted only in very limited areas, and in most African countries, growing GM crops is illegal. Labeling is also mandatory in Australia, New Zealand, and Japan (Paarlberg 2010). But in others – most notably, the USA, Canada, and Argentina – labeling is voluntary and rare. In these countries, GM crops are widely grown,

especially soy, corn, cotton, and rapeseed (canola). Over 80 % of processed foods currently found on American grocery shelves contain ingredients derived from GMOs. However, surveys show that most consumers are unaware of the extent to which their food contains GM ingredients and the vast majority of consumers are in favor of mandatory labeling (Radas et al. 2008). This entry will discuss current policy and common arguments for and against GMO labeling.

Historical Background

In the 1990s, countries around the world first began approving GMOs for commercial use. Beginning in 1994, the US Food and Drug Administration (FDA) approved the Flavr Savr™ tomato, soon followed by the Monsanto Corporation's Roundup™ Ready soybean and its Bt versions of corn and cotton. Roundup Ready™ crops are engineered to resist glyphosate, the main ingredient in Monsanto's popular Roundup™ herbicide, and Bt plants have been modified to produce their own insecticides using a gene from a soil bacterium (Blatt 2008). Since the mid-1990s, the FDA has cleared many other crops. It is currently considering a proposal to allow the sale of genetically engineered salmon developed by AquaBounty which would grow much faster than natural salmon. Through the early to mid-1990s, many other countries followed a similar regulatory trajectory: the EU approved several GM crops for commercial use while selected others were approved in Australia, Mexico, Japan, and Argentina (Thorpe and Robinson 2004).

Soon thereafter, countries began to diverge in their treatment of GM foods. The US and Canadian governments have continued on a supportive path and have consistently denied the need for the mandatory labeling of GM food ingredients. Food labeling in the USA is governed by the FDA, under the authority given to it by the federal *Food, Drug, and Cosmetic Act* (FDCA), with the exception of meat and poultry products which are overseen by the US Department of Agriculture (USDA). In 1992, the FDA announced that the fact that consumers might want to know whether a food had been produced using transgenic techniques did not justify mandatory labeling since it found no evidence that human consumption of biotechnologically produced food was unsafe (FDA 1992). Since the FDCA authorizes the FDA to prevent misleading labeling practices, implicitly this meant that in the agency's view, nondisclosure of GM content does not make a product's label misleading. At the same time, the FDA announced that GM foods can be marketed without independent testing unless they contain surprising ingredients, like a tomato containing a peanut protein, which could pose problems for consumers with peanut allergies. Companies seeking to market GM crops now participate in a relatively informal approval process called an FDA "consultation" in which they voluntarily present the results of their own testing to the agency. All GM foods and feeds currently available in the USA have undergone this review, as it is in the interest of producers to do so (McHughen and Smyth 2008). By and large, the Canadian government has taken a similar approach. As in the USA, GM foods need not be labeled as such, although in Canada manufacturers must submit data for pre-market review before GM products can be sold (Wohlers 2010).

The European approach has evolved to be quite different from the American model. Broadly, whereas the US regulatory focus has been on the end product, the EU has focused more on process. Beginning in the late 1990s, the continent's previously more permissive attitude was replaced by a more conservative position. Guided by what is known as the "precautionary principle," the idea that in the absence of sufficient scientific evidence, potentially harmful activities should be treated cautiously, EU regulators need no specific evidence of risks to health or the environment to block a GM food from coming to market. All products with more than 0.9 % GM content now must be labeled (Paarlberg 2010), and special requirements apply to GM foods which exceed the general "traceability" mandates that apply to all EU foods, food ingredients, and feed (EU 2007).

Several things help to explain this comparatively cautious approach. The continent's experience with "mad cow" disease in the late 1990s heightened concerns over food safety, giving anti-biotech activists an opportunity to take advantage of consumers' fears. Also, Monsanto and US grain processors blundered in their first shipments of GM products to Europe by mixing GM and conventional soy together and sending the mixture to the continent unlabeled and unannounced. In response, European media started to give GMO foods significant coverage, leading to high consumer awareness of what soon became derided as "Frankenfoods." Some grocery chains gained market share by pledging to carry only GM-free foods, and others soon followed suit. Moreover, all of these events took place in a cultural and political context different from that found in the USA and Canada. Europeans have a long-standing cultural attachment to locally grown food, and agribusiness firms have less political clout in Europe than in North America. Whereas most farming in the USA is done by large-scale agribusinesses, in some areas, European farming remains comparatively nonindustrialized and family oriented (Schurman 2004).

Arguments for Labeling

The most common argument in favor of GMO food labeling is based on considerations of consumer autonomy, often expressed in terms of the customer's "right to know." In general, personal autonomy is the right to make important decisions about one's life for oneself, free of deception and coercive influences, in light of one's values, goals, and conception of the good life (Brock 1999). The standard argument for GMO labeling is thus that respect for autonomy requires allowing consumers to decide for themselves whether to use products with GM ingredients, which is a decision consumers can make only if food manufacturers disclose the GM content of their products. Some authors have argued that so-called negative labeling – labels that state the absence of GM content – is equally respectful of consumer autonomy as positive labels that reveal the presence of GMOs (Hansen 2004). Also, negative labels effectively put the cost burden on consumers who desire information about GM food by enabling a price premium to be charged for non-GM products (Schmitz et al. 2010). Thus, negative labels are sometimes defended as a more fair way to allocate the costs associated with labeling and product differentiation. Current US standards require products labeled as "certifiably organic" to be GMO-free, which thus amounts to a kind of negative GMO label (Guthman 2003). Typically, however, consumer autonomy is used to argue for mandatory positive labeling.

The consumer autonomy argument is supported by numerous surveys over the years showing the vast majority of consumers in favor of required labeling. Recent studies by the Mellman Group and MSNBC found over 90 % of American consumers supporting mandatory labels (Cummins 2012). Such results need to be interpreted with some care, however. At least in the USA, most consumers know little about GM-related issues, although this is not surprising given the relatively scant attention American media have given to the topic over the years. Consumer antipathy typically lessens when buyers are informed that they have likely been consuming GM products for years (Radas et al. 2008). Also, at present, most consumers see little personal benefit from GM foods. Currently, most of the gains from GM techniques accrue to manufacturers and growers by way of reduced production costs (Schmitz et al. 2010). Consumers derive no additional nutritional benefit from most transgenic crops, since corn syrup, soy protein, and corn oil are the most common GM ingredients found in processed food (Blatt 2008). Their attitude becomes notably more positive when consumers are surveyed about GM techniques that enhance food quality, such as when they allow for the use of less pesticide or a longer shelf life or when they yield ingredients with enhanced nutritional benefits (Boccaletti and Moro 2000). Note also that there has been virtually no social resistance in developed countries to the use of genetically engineered recombinant medical drugs.

Especially early on, the consumer autonomy argument was commonly coupled with concerns about the safety of GM foods. Critics often point to the fact that GMOs rarely undergo independent safety testing. They also commonly allege some level of collusion between the US government and agribusiness firms in covering up harms, frequently citing the so-called revolving door that exists between government and the biotech industry (Smith 2008). Scattered reports of allergic reactions and other adverse events allegedly resulting from GM consumption also can be found. Thus, labeling is often advocated as a way for consumers to protect themselves. However, to date, the overwhelming scientific consensus is that GM foods are safe and "substantially equivalent" to their traditional counterparts, given that the changes brought about by genetic engineering usually fall well within natural ranges of biochemical variation. In fact, some scientists argue that GM crop varieties usually can be assumed to be safer than those that are produced by traditional breeding methods since GM technology targets isolated genes, leaving the rest unchanged, while traditional breeding sometimes produces unexpected changes (Spencer 2002). Regardless, since the 1980s, various distinguished scientific societies and organizations have pronounced GM crops to be safe, groups such as the National Academy of Sciences (NAS), the Royal Society of London, the French Academy of Sciences, the World Health Organization (WHO), and the American Medical Association (AMA). Consequently, worries about the safety of GM foods are less prevalent than at one time. Still, comparatively few independent health studies have been conducted and those that have been done tend to be short-term studies involving small sample sizes (NAS 2004).

However, consumers often have reasons other than health for wanting to know whether or not their foods contain GMOs. They may be wary of GM products because for religious or other reasons, they oppose what they see as an attempt to "play God." The fact that genetic engineering involves mixing genes from different species strikes some as disconcerting hubris. Other consumers worry about the long-range environmental effects of these technologies. Though in some cases the use of genetically engineered crops yields net environmental benefits, these effects may reverse themselves over time. For example, the advent of herbicide- and pesticide-resistant weeds and insects is a distinct possibility, particularly on farms where the same kinds of seeds and chemicals are used year after year (NAS 2010). Companies may be forced to continually introduce new varieties of organisms that can be sprayed with increasingly potent chemicals, resulting in a genetic engineering "treadmill." Also, widespread GM farming means a loss of biodiversity, since GM techniques lend themselves most readily and efficiently to industrialized, mono-crop agriculture. Mono-crops are vulnerable to threats other than those that they have been engineered to resist (Blatt 2008). Other consumers are concerned about the privatization of agriculture that GM crops represent. Whereas seed used to be part of the commons, GMOs are patented forms of intellectual property. Growers' contracts with seed companies require them to buy new seeds every year instead of saving seeds from the previous year's crop, as is common in traditional farming practices (Shiva 2011). Monsanto in particular has sued numerous farmers for patent infringement when seeds from nearby GM crop fields end up in an unsuspecting farmer's land, regardless of how they got there (Center for Food Safety 2010). Concerns about privatization are also fueled by the fact that agriculture is becoming increasingly controlled by a small number of powerful, multinational corporations. GM techniques contribute to that trend. Lastly, some fear the effects of GM agriculture on nontarget species. Controversy has existed for some time regarding whether or not the insecticide produced by Bt corn kills monarch butterfly larvae, and genes from the same hybrid have found their way into native maize in Mexico (Kuzma et al. 2009).

Arguments Against Labeling

The most common argument against GM food labeling is that labels would not significantly

enhance consumer autonomy and might needlessly scare people away from GM foods. This charge can take various forms. One complaint is that labels are unlikely to be specific enough to convey useful information. Labels announcing that a particular product "may contain genetically modified ingredients" might be largely ignored. Consumers who are concerned about the presence of some GM ingredients but not others would be poorly served by a generic label, and absent something more definitive, consumers may pay little heed (Spencer 2002). Requiring the labels to be more specific has its own drawbacks, however. For example, many processed food products contain highly refined oils derived from GM crops, but such oils typically lack any of the source organism's DNA (McHughen 2002). A consumer trying to avoid ingesting genetically modified DNA would have no reason to forego these products, but most consumers are unlikely to understand these subtleties. The greater the amount of technical information conveyed, the more knowledge consumers need to make use of the information.

Another way to question the need for labels is to emphasize the difference between nutritional labeling and GM labeling. If it is assumed that GM foods are safe and healthy, then mandated GM labels require a rationale different from that used to justify current nutritional labeling requirements. Against this, though, current US label requirements demand more disclosure than is strictly speaking related to health and safety. Manufacturers must reveal the presence of artificial flavors and colors, country of origin, and quantitative information about products, none of which are directly related to health (Streiffer and Rubel 2004). Critics of mandatory labels also compare the absence of GM labels to the absence of labels disclosing extraneous ingredients like hair fragments, animal excreta, and so forth (Spencer 2002). Such contamination is unavoidable, given the realities of modern food harvesting and processing. Yet the fact that the FDA does not require such information to be disclosed is not usually taken to be a violation of consumer autonomy.

GM labeling requirements also must resolve some practical difficulties. One problem is that of determining an adequate threshold for the distinction between GM and non-GM ingredients. Given the widespread sharing of grain elevators, transportation vehicles, and processing facilities and the reality of wind-blown seeds and insect pollination, it is virtually impossible to completely prevent non-GM fields from GM contamination. Some reasonable cutoff point must be decided upon, then, for the distinction between GM and non-GM to be viable (McHughen 2002). Relatedly, in order to be effective and meaningful, labeling requirements must be enforced. However, enforcement requires testing, and testing crops for GM content is expensive. Perhaps the most likely scenario is that non-GM producers would face increased costs resulting from validation procedures, costs that would almost certainly be passed on to consumers. The more difficult and costly it becomes for producers to certify their products as non-GM, the more likely they are to engage in rent-seeking behavior (Guthman 2003).

Summary

Given the multiple possible uses of genetic engineering and the variety of new organisms likely to be developed, labeling practices are likely to remain controversial for some time to come. Several nongovernmental organizations (NGOs) such as the Center for Food Safety, Greenpeace, and the Union of Concerned Scientists continue to push for tighter regulation of GMOs. In several states, legislation has been introduced to require mandatory labeling and some members of Congress have supported pro-labeling bills for several years. To date, however, these efforts have had little effect. In 1996, Vermont voters passed a referendum to require labeling of dairy products from cows treated with recombinant bovine growth hormone (rBGH) which is used to increase cows' milk production. Following an appeal by Monsanto and the dairy industry, however, the law was struck down on First Amendment grounds. A 2002 ballot initiative in Oregon

that would have required GMO labeling failed by a wide margin after agribusiness advertised heavily against it. A similar 2012 voter referendum in California was defeated after opponents of labeling outspent supporters by five to one.

Stepping back from such skirmishes, however, the debate about the labeling of GM food and GM technology itself illustrates a divide that reappears in many disputes about food and the environment. Those against mandatory labeling tend to regard genetic engineering as an extension and refinement of traditional breeding methods. For them, this technology is a means of solving important problems in agricultural production and the world's food supply by introducing foods with improved nutritional qualities or resilience to climate change and other vulnerabilities. Those in favor of mandatory labeling tend to regard genetic engineering more negatively. For them, this technology represents an unwelcome and unnecessary change in the relation between humans and the rest of the natural world.

Cross-References

► Food Labeling

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Grocery Store Design

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Synonyms

Architecture: supermarket, grocery; Interior design: supermarket, grocery; Supermarket design

Introduction

Grocery stores in the United States, with few exceptions, share similar floor plans and display items in a similar fashion. This is no coincidence, nor is it an accident. Grocery store design is a deliberate process that is informed by a variety of factors, not the least of which is profit. Since their introduction into the American landscape, grocery stores have grown and changed in order to meet greater customer demands and increase profits. Merchants of old would hardly recognize their modern counterparts and the innovations that have been introduced, adopted, adapted, and are now commonplace in our grocery stores. They would likely be surprised to find that psychologists, anthropologists, and sociologists can be found, at one time or another, on the payroll of every major food retailer. Along with experts in marketing, sales, and advertising, social scientists have found a place in the industry determining the best way to structure a store, from the floor plans to promoting the items within, in order to yield the greatest revenue. This monograph discusses the history of American grocery store design and the factors that influence modern design. It will examine the ways in which population trends, consumer research, technological innovations, and competition have contributed to the evolution of the market, from a one-on-one interaction to something akin to a self-guided tour, concluding with a brief discussion of some of the ethical questions surrounding modern grocery store design.

Background

From the Trading Post to the Piggly Wiggly

First came the trading post; then the general store, which evolved into the neighborhood grocery store; and eventually the supermarket. In the days before supermarkets, consumers purchased items at multiple stores, such as a mercantile and general store, or directly from the source, e.g., the farmer. Certain stores carried dry goods, while others carried dairy items. The greengrocer sold produce and the butcher supplied fresh meat. It was not until the 1920s that self-service stores began to offer fresh meat, produce, and other perishable items under the same roof as dry goods.

As American cities became larger and more densely populated, the demand grew for more efficient stores that carried a greater variety of items under one roof. Shoppers grew weary of the way that early retailers operated, with clerks measuring out bulk items for them while they waited. They were not alone in their frustration. Retailers recognized that waiting on customers was a labor-intensive process that adversely affected their revenue stream, shrinking their profit margins. The retailer's ability to wait on the customers was limited by the number of staff available, and their earning potential was, in turn, hampered by staffing costs. In short, the system was inefficient for both retailers and customers, and it was their mutual frustration that inspired the development of the self-service system upon which modern retail practices are based (Petroski 2005).

In 1916, Clarence Saunders, founder of the Piggly Wiggly stores, introduced the concept of a self-service grocery store, a precursor to the modern supermarket, wherein the nonperishable items were sold alongside perishable goods. Saunders, who was once a clerk in a general store, recognized the inefficiencies of grocery store operation. He identified high overhead and credit losses as principle issues limiting the success of retail grocery stores at the time. The highest of these costs was staffing. Before self-service, customers required assistance in order to access items, which necessitated a high staff to

customer ratio, or, in the absence of such, they waited an excessively long time for service, increasing the potential for customer frustration and dissatisfaction. In response to these issues, Saunders developed and patented a three-point plan for his grocery store system, improving efficiency and the consumer experience, leading to larger profits for store operators (Petroski 2005). Elements of his plan are still an integral part of grocery store design to this day.

The first step in his plan called for an entrance/exit room or lobby. In this area, incoming shoppers would enter the store and exiting shoppers were routed to clerks who would pack customer orders and operate the cash register. Saunders later reconfigured this area in a patent issued in 1920, separating the two and making the exit room resemble today's checkout areas. Under the original design, shoppers entering the store were met with shoppers attempting to check out, resulting in congestion that prevented incoming shoppers from easily reaching the sales floor. The new design included two checkout lanes, one that was constantly in operation and a second one on standby, to be opened in the event that the active checkout lane was overcrowded with customers (Petroski 2005).

Point two of the three-point plan addressed customer flow or circulation, with a floor design that amounted to a long, winding path along which shoppers flowed, herding customers past as many items as possible, encouraging them to linger in the store, potentially resulting in greater sales. This closed system made it impossible for shoppers to access aisles at random or to limit their visit to a few choice aisles. It was in this part of the plan that the idea of bringing perishable items into the same space as nonperishables was executed. Saunders' plan called for a glass-doored refrigeration unit in which perishables could be stored and displayed, limiting the need for shoppers to acquire those goods elsewhere (Petroski 2005).

The third and final point of the plan called for a storeroom set apart from the sales floor and a gallery of sorts, above the stacked inventory, which would allow for a clerk to observe and monitor activity on the sales floor, including the need to restock popular items. This was a departure from the old method under which storeowners would wait until after closing time to restock. No longer were sales lost because it was impossible to restock shelves and wait on customers at the same time. Introducing the concept of self-service and limiting customer-employee interaction resulted in lower overhead, which meant that the business could pass the savings on to customers by lowering prices, thereby ensuring a steady stream of customers, victory over competitors, and increased profits (Petroski 2005).

Migration and Urbanization

Most of the changes to retail practice took place on the West Coast, more specifically, Los Angeles, California, beginning in the 1920s and 1930s. The size and shape of groceries stores began to change. Supermarkets demanded more space than their pedestrian-friendly predecessors. Inside the store, there was a departure from narrow aisles and floor to ceiling shelves, making the stock more easily accessible to customers without the aid of a clerk (Longstreth 2000). The first modern supermarket, a King Kullen, was opened on the East Coast, in Jamaica, New York, in 1930 (Jackson 1995). This was the first large-scale market that resembled markets of today, with dedicated parking and affordable prices. The endeavor was so successful that within two years, an additional seven King Kullen markets opened in this region (Jackson 1995).

The proliferation of the modern supermarket follows the same trajectory as automobile ownership, particularly in suburban areas, and is strongly linked to class, as it was in middle-class areas that these markets were established and thrived (Longstreth 2000). When automobiles came into fashion, the drive-in or drive-through market emerged, allowing customers to shop from their car windows. The novelty and convenience of these shops facilitated the survival of certain retailers despite the changes in the retail practices seen during the mid-twentieth century. Skinner Dairy shops flourished across the southeastern United States well into the 1990s, and Dairy Barn stores are still in existence

in the northeastern part of the country (Longstreth 2000). The widespread adoption of automobiles signaled the advent of the shopping strip, whole streets dedicated to retail markets that catered to the driving public, a contrast to stores of old found close to the town square or city center and conveniently located for pedestrian traffic (LeGates and Stout 2011).

Interestingly, the land parcels upon which supermarkets were built were further and further from the once prized city center. The demand for larger stores meant that storeowners needed larger pieces of land upon which to situate them. In a city setting, space was a commodity, but out along the roads that bordered city limits, there was plenty of space to be had, and much of it at a reasonable price (LeGates and Stout 2011). Commercial enterprise, specifically retail outlets like supermarkets, is a contributing factor in the urban sprawl that is now commonplace in semi-suburban and suburban areas (Frumkin 2002).

Competition Leads to Innovation

In the waning economy of the 1970s, competition among supermarket chains was fierce and the strategy had to change once again. Competition among grocery chains led to the emergence of the "jumbo" or "superstore" in the late 1970s, with big-box stores beginning to carry groceries, in addition to housewares, clothing, etc. (Strasser 1982). In an effort to retain existing customers and lure new ones, stores became inventive in their operations. The 24-hour schedule was born and the larger grocery chains began to offer non-grocery services within their stores, such as, banking, postal services, pharmacies, and later video rental (Strasser 1982). The 24-hour schedule cost storeowners little extra in operation costs, since the stores were already staffed at night, albeit with stock workers and the benefit of attracting a new group of customers was profitable enough that the idea caught on. Storeowners began to enter into partnership with outside vendors and lease space in order to stay afloat. The inclusion of these services was intended to capitalize on the convenience of one-stop shopping, much in the same way that superstores had done by bringing the supermarket into the department store (War in the supermarkets 1972; Strasser 1982).

When the dust settled, after a number of mergers and closures, the retailers left standing embraced innovative thinking, and as technology evolved and computers shrunk in size, computer technology was applied in the marketplace. Point-of-sale systems were implemented in the mid-1980s, making checkout faster and more efficient (Gilchrist et al. 1982). Cashiers were no longer required to do basic math in order to make change and stores could be assured of fewer errors of this sort. These systems have been continuously improved upon over the years progressing to the point where customers could scan their own orders, further reducing staffing costs (Eskin 2005).

The introduction of online grocers to the mix of retailers sparked another round of innovative thinking in the early 2000s. Many brick and mortar grocers have introduced a "clicks and bricks" business model in order to compete (Prasarnphanich and Gillenson 2003). This hybrid model attempts to capitalize on the best of both worlds, the familiarity of the traditional physical store experience and the convenience of the virtual buying experience. Grocers recognized the convenience of online shopping, but also knew that shopping for food is a decidedly tactile experience. It can be difficult to judge the quality of produce or meat in an online setting. These items are likely to bring shoppers into the store; however, nonperishables and non-food items can easily be purchased from an online competitor. In order to retain their base, grocers have adopted online sales in one form or another. The most common configuration allows customers to order items online and have them delivered or stop by the store and pick up the completed order (Prasarnphanich and Gillenson 2003).

Unlike the competition of the 1970s, where grocers competed with one another for business, today, they are competing with farmer's markets, specialty stores, and stores that feature artisanal goods. In order to remain relevant, grocers have taken to creating the illusion of stores within stores. Lighting, flooring, sampling stations, and service counters are used to distinguish between

departments within the grocery store. As the customer moves from one department to another, they are met with a distinctly different décor, signaling that they have entered a new "store" where specialty or unusual items are carried. The investment pays off in higher profit margins for the successful grocer (Kinsey and Senauer 1996; Nestle 2006).

Basic Principles of Grocery Store Design

Ultimately, it can be argued that there is but one basic principle of grocery store design, product placement. Circulation through the store and conveniently locating companion or complementary products are the mainstays of grocery store design, and these are achieved largely through product placement. As Clarence Saunders demonstrated in his 1916 patent application, circulation is an essential element in promoting sales. Saunders' approach, in effect holding shoppers hostage and forcing them to pass by every item in the store until they reached the checkout counter, was effective to some extent (Petroski 2005). Modern retailers have built upon this method, achieving the same end by enticing shoppers to travel along a number of predicted paths, where high impulse items have been placed, while allowing shoppers to travel the aisles at will and in any pattern they choose. This is, however, an illusion of freedom because retailers long ago discovered, with the help of marketing experts and social scientists, that consumers could be manipulated into traveling a prescribed pathway. For example, there are certain items, staple items, like milk and bread, that bring shoppers into the store and if placed strategically, promote movement through the store along a few expected routes. Typically, these products are placed furthest from the door, ensuring that customers navigate their way through the store to that area on virtually every trip and ensuring that shoppers must traverse the store, passing numerous items and displays in order to get to their planned destination (Nestle 2006).

Convenience and coordination of complementary items goes hand in hand. Conveniently placing the hamburger buns, condiments, and chips on a display near the prepackaged frozen hamburgers is not an unusual sight. The promotion of companion items ensures that shoppers receive the message to purchase all of the elements of a meal, along with an impulse buy, in this case, the chips, thus generating additional revenue. In recent years, grocery store operators have increasingly catered to customer convenience by offering "home meal replacements" of the heat and serve variety. Meant to rival take-away and fast food outlets and capture some of the revenue lost to these establishments, stores had to be remodeled in order to accommodate refrigerated display cases that could be located away from those areas that are normally outfitted for perishables, like dairy, meat, and frozen foods. These take-away-style foods are displayed in a way more consistent with a food court than a market (Humphrey 2000; Petroski 2005). Supermarkets wanting to capitalize on special events, holidays, etc., want the flexibility to relocate displays to various parts of the store, so as to encourage companion buying, e.g., heat and eat Buffalo wings are co-located with the carrot, celery, and blue cheese platters and carbonated beverages in a featured space within the store (Caplan 2007; Humphrey 2000).

Every aspect of the shopping experience is filled with behaviors worth studying and great attention is paid to how environment influences shopping behavior. Grocery store interiors are similar, if not identical and are meant to maximize profits by appealing to the consumer's senses. The perimeter of the store is where the most perishable items are displayed. These are also the products with the greatest profit margins, and it is in the retailers' best interest to encourage consumers to make purchases in these areas. Placing the produce section just beyond the entrance ensures that shoppers walk into an area that is brightly lit and teeming with vibrant colors. The stimulating sights prime the customer to shop, communicating that the store stocks fresh items. Larger stores will often boast a floral section and a bakery; these too will be situated very close to the entrance of the store. Taken together, the bright colors from the produce and floral sections and the scent of fresh-baked goods are a heady mix Inspiring a wave of

emotion that encourages shoppers to relax and makes them feel more at home (Nestle 2006). The scent of baked goods reinforces these good feelings and stimulates the salivary glands, which has been associated with increased likelihood of spending, particularly on impulse buys. Also highly perishable, meat, poultry, seafood, and sometimes dairy, occupies the back wall of the store, so that these sections are visible to the consumer from the every aisle. Similar to the produce, floral, and bakery sections, retailers encourage spending in these areas by routing shoppers through the area or making it highly visible from anywhere in the store (Schardt 1994).

Product placement is well thought out, even within the aisles. Shelf placement is critical to both retailers and manufacturers. Items that appeal to children, such as cookies, candy, fruit snacks, and sugary cereals, are usually located at their eye level, where they can easily reach for and place the items into the shopping cart. Bulk items and less processed foods are typically located on the highest and lowest shelves, as research shows that those for whom these products would be a priority, the items would be deliberately sought out, requiring less prominent placement (Nestle 2006). Retailers use shelf placement to maximize sales, and manufacturers, who already pay a listing fee or slotting fee to ensure that their products are carried, pay extra to ensure that their items are strategically placed. Slotting fees can cost up to $25,000 per item, per store and manufacturers may pay several million in listing fees to supermarket chains (Nestle 2006). The aisle ends or "end caps" are prime real estate within the grocery store and manufacturers pay a premium to have their products featured in end cap displays. Contrary to popular belief, the items featured in these displays are oftentimes items that are lagging in sales, rather sale items. Customers often purchase these items mistakenly believing that they have been discounted (Nestle 2006).

From beginning to end, retailers design an environment that promotes spending. The checkout area, the last point of contact and the last opportunity to encourage customer spending, is typically populated with displays of items that are most regularly bought on impulse, such as magazines, candy, soda, and chips. The placement of these items is intended to tempt shoppers to buy something with which to occupy themselves as they wait to be checked out (Nestle 2006; Warfare in the aisles 2005).

The Psychology of Supermarket Design

Market research has shown that time pressure and the presence of other shoppers in the shopping environment influence the likelihood that consumers will visit a retail outlet, spend time in the store, and make a purchase before leaving. Time pressure is felt as the time a shopper allots for the business of browsing, selecting, and purchasing items is depleted. In the presence of low pressure, there is a direct relationship between the time spent in the store and the likelihood of purchase (Hui et al. 2009). It would seem logical that the inverse would also be true; however, such is not the case. Time pressure can lead shoppers to feel forced to make a purchasing decision rather than allow themselves the option of leaving the store empty-handed. The increase in time pressure might make shoppers more focused in their efforts, however, reducing the likelihood that they would buy anything outside of those items that were planned purchases, thereby minimizing sales potential (Hui et al. 2009).

Shopping is a social activity of sorts. People gather in a common place for a common purpose and are often influenced by each other's behavior. The presence of other shoppers in a store or within a specific area of the store may signal to consumers that this is a preferred location or that the products attracting attention are sought after. Retailers must maintain a delicate balance, as this social influence can be a double-edged sword. The presence of other shoppers may attract more customers and encourage spending; however, there is a tipping point. Crowding has been shown to decrease willingness to visit a store and the intention to purchase, as well as actual purchasing (Hui et al. 2009).

What Is Old Is New Again

Supermarket renovation and redesign takes place, on average, every 7–8 years. It is very

important for these stores to keep up with changes in the industry in order to remain competitive (Humphrey 2000). Clarence Saunders, shortly before his death in the mid-1950s, filed a patent for the precursor to the self-checkout lanes that are commonly found in supermarkets and big-box stores today. Saunders' Keedoozle was a key punch-based system that allowed shoppers to select items which were then carried by conveyor belt to the checkout and tallied up. Saunders sought to automate grocery shopping and further reduce retailers' overhead by reducing staffing costs such that only one staff person would be required to oversee a number of checkout lines. Building upon Saunders' innovations, modern retailers have moved beyond the self-checkout to the electronic shopping trolley and interactive technology in the aisles (Petroski 2005).

Patents filed for the electronic shopping trolley are among the newer developments in grocery store design. The various patents describe variations of a shopping cart that stores consumer information and promotes an interactive relationship between the receptacle and the shopper and builds upon the basic principles of grocery store design, alerting shoppers to items they may have missed or those that complement something already in their cart. Several of the plans describe a shopping cart that can recall prior shopping trips and direct shoppers to another area of the store, where items they regularly purchase are located (Kenney 2000; Jacobi et al. 2001; Blaeuer 2002; Petroski 2005). Scanner technology has also moved away from the checkout lane into the aisles. In a process similar to that used in wedding and shower registry, retailers have been experimenting with furthering the self-service concept by equipping shoppers with handheld scanners, allowing them to keep a running tally of their order, bag it themselves, and, aside from the final, singular scan at a checkout station, have almost no interaction with store employees. Tied into kiosks in key locations throughout the store, the handheld devices allow customers to learn about a particular item or get assistance in planning a meal and even determine the best wine to accompany the meal (Eskin 2005). In keeping with previous efforts to keep customers in-house for as many services as possible, the scanners are tied into non-grocery services like the pharmacy, allowing the shopper to be notified of a filled prescription dropped off at the beginning of their visit (Eskin 2005).

Some innovations are quite literally looking outside of the box. Civil engineering and history researcher Henry Petroski, in his discussion of supermarket design, proposes a design that rejects the traditional rectangular configuration of nearly all retail outlets in favor of a circular design (Petroski 2005). Petroski posits that a radial design maximizes shopper convenience by allowing access from any aisle to any other aisle, simply by transecting the store's core. Additionally, he suggests that placing a checkout lane at the end of every aisle would be appealing to shoppers, as they could check out from wherever in the store their shopping has taken them. He further suggests that the entire edifice could be placed on a sort of turntable, allowing it to rotate such that shoppers could wait until they reached a point close enough to their vehicle that would make exiting the building most convenient, particularly in inclement weather. Petroski filed a patent for his radial store system in 2004, but it has yet to be implemented by a retail outlet (Petroski 2005).

Ethical Questions and Dilemmas

Advances in technology have led to a reduction in brick and mortar stores and consequently a decline in the employment opportunities in the field, from entry level to management. Retailers are continually seeking ways in which to minimize overhead and increase profit. Technology has made it possible to reduce contact with store staff to a bare minimum. The advent of self-checkouts and online purchasing options further reduces opportunities for employment in this setting. The number of jobs lost in this industry over the last 20 years is staggering. Employment opportunities will continue to diminish as technology advances further with the implementation of interactive shopping carts eliminating or reducing the need for personal customer assistance. What may be beneficial to the retailer's

bottom line may not be beneficial to the American economy. How do retailers ensure that they are maximizing profits without eliminating employment opportunities, especially for youth and the working poor, populations most often found in these settings? Additionally, information kiosks and interactive shopping carts might be useful in promoting the sale of complementary items, increasing profits, but will these innovations also contribute to the growing obesity problem that is front and center of American health today? Retailers may have the opportunity to play a role in the implementation of interventions that support shopping for healthy food items, but it is unlikely that the promotion of produce and whole foods will yield the same opportunities for revenue as processed food that have been linked with increasing rates of overweight and obesity.

Summary

Technology may add bells and whistles to the American shopping experience, but in the end the same issues remain, efficiency and profit. Every innovation, every development in retail is designed to bring customers into the store, encourage them to view as many items as possible, and convince them to spend as much as possible.

Cross-References

► Obesity and Consumer Choice

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Gustatory Pleasure and Food

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Synonyms

Consumption; Ethics; Food; Gluttony; Happiness; Morality; Pleasure; Taste

Introduction

Eating food is necessary for our survival, but unlike various other things we need to do to survive – sleeping and breathing – eating can provide great pleasure. Maybe alone among the activities we need to do to survive, eating can bring us great joy.

Which ethical concerns does gustatory pleasure raise? There are the normal questions about pleasure: Is it a *good*? An *intrinsic* good? The *only* intrinsic good? *Ought* it be maximized? Are there any ethical concerns raised peculiarly by gustatory pleasure? Are there any ethical concerns especially well raised by gustatory pleasure?

This is hard to say. In our everyday lives, food is complicated because it functions at so many levels of experience, or as philosopher David Kaplan argues, "food is vexing." In fact, Kaplan (2012) argues that the difficulty of analytically containing food explains a general philosophical neglect: "the subject quickly becomes tied up in countless empirical and practical matters that frustrate attempts to think about its essential properties (Kaplan 2012, p. 2)." This entry surveys some ethical concerns about gustatory pleasure and some responses and also some hypotheses about why these concerns aren't more often discussed. Some of the topics we will consider include gluttony, aesthetics, puritanism, purity and pollution, and, to start, the relative lack of discussion of the ethics of pleasure.

Why So Little Discussion of the Ethics of Gustatory Pleasure? Several Hypotheses

Why isn't there more literature about the ethics of gustatory pleasure?

Hypothesis #1. *Eating is outside the realm of ethics since eating is a necessity. Hence, the pleasure derived from eating is outside that realm. It's like breathing*: *No one thinks breathing raises any interesting ethical questions. No one thinks pleasure from breathing raises ethical questions. Likewise with any normal bodily function, they can't be helped and, hence, are morally uninteresting.*

Francine Prose writes,

> Unlike the other deadly sins, lust and gluttony are allied with behaviors required for the survival of the individual and the species. One has to eat in order to live; presumably, the race would die out if lust were never permitted to work its magic. (Prose, p. 8)

Furthermore, one gets the impression from Prose's book that our need to eat makes the topic of the ethics of eating uninteresting. Yet if that is Prose's view, it is mistaken. Eating is a necessity for staying alive, but the choices we make aren't necessary. We can pick the Whopper or the whale, the figs or the fudge. We can try to eat the yummiest foods we can or, as Prose alleges St. Francis did, go out of our way to make those foods disgusting: "According to an early biography of Francis of Assisi, the saint used ashes as a spice with which he sprinkled food in order to destroy any hint of taste (Prose 2003, p. 28)." The pleasure we get from our Whopper is not a necessity. It might be that it raises no interesting ethical issues, but, if so, that isn't because it is something that can't be helped.

Hypothesis #2. *Pleasure comes from taste and philosophers have given taste scant attention.*

As philosopher Carolyn Korsmeyer points out, in the Western intellectual tradition, taste has been given short shrift, especially compared to the attention paid to the power of sight and sound. In this philosophical tradition, these two senses are deemed superior, "labeled the 'cognitive' or 'intellectual' senses – or in short, the 'higher' senses (Korsmeyer 1999, pp. 2–4)." According to Korsmeyer, the necessity of a total bodily engagement in order to taste food (or drink for that matter) is what makes this sense problematic for philosophers. Such sensual reality has made it difficult for Western philosophers to relate food to moral action, unless as an example of actions (e.g., eating and drinking) that must be *controlled* in order to achieve a moral state.

As a sociological explanation of why there isn't much on the ethics of gustatory pleasure, this might well be compelling. But absent some

grounds for thinking taste is philosophically uninteresting, it shouldn't bar us from giving taste its due. Is the ethics of the topic of gustatory pleasure a topic worth discussing?

Hypothesis #3. *Gustatory pleasure is too sensuous to be a proper subject of philosophical inquiry*.

In a way, hypothesis #3 might provide a negative answer to the question above and an answer to the question of why philosophers haven't been particularly interested in gustatory pleasure. Inquiries into the sense of taste and aesthetics have been more philosophically fruitful, but the seeming subjectivity of the gustatory taste experience has also made the topic difficult for philosophers to engage with fully. As Korsmeyer explains, "There is thus an abiding tension in aesthetic theories between the idea of taste as a sense pleasure and taste as discriminative capability: fine discernment is accomplished by means of the pleasure, yet the pleasure itself is too sensuous to count as aesthetic (Korsmeyer 1999, p. 6)." "Taste" and "tastefulness" as aesthetic concepts have primarily resided outside of bodily tastes or mediated bodily tastes through higher order aspirations. Thus gustatory pleasure and aesthetic pleasure have not been consistently linked. The problem of the body in the attainment and explanation of the aesthetic ideal haunts Western philosophy; it is no surprise, therefore, that gustatory taste suffers from philosophical neglect.

The problem of the body raises a number of issues that are also explored in Pleasure Principle in Food and Taste, Distaste, and Food.

Hypothesis #4. *Pleasure is a bodily sensation and philosophers of a certain ilk – and there are numerous such philosophers – have given bodily pleasures scant attention*.

Hypothesis 3 can be developed in more detail as hypothesis 4. Korsmeyer writes, "The physical necessity of eating is one of several factors that traditionally sidelined taste and food from philosophical attention in the Western tradition as eating was often dismissed as a matter of the animal 'body' rather than the uniquely human 'mind (Korsmeyer 1999, p. 90).'" For some of the philosophers in question, the body is akin to a vehicle that our immaterial souls use to make their way around the world. If this metaphysics of persons is right, attending to bodily pleasure is a bit like attending to the well-being of one's car or bike. It's not that it's unimportant – it's very important for getting around – but, rather, it's not the sort of thing you write a philosophical book about. Moreover, so far as the concern with one's body is just to keep it in shape to ferry the mind around, one needn't eat *yummy* food to do so. One could eat a diet of bland, empty calories and multivitamins. (On the history of philosophers doing something like this, see Stuart (2006).) For others of the philosophers in question, bodily pleasures just aren't as important as intellectual ones. Separating the higher pleasures from the lower, John Stuart Mill (2002) lumps a "beast's pleasures" in with the lower and says that "a beast's pleasures do not satisfy a human being's conception of happiness." Presumably, gustatory pleasure is among the beast's pleasures. Certainly a pig enjoys its food, and, yet, Mill claims, "it is better to be a human being dissatisfied than a pig satisfied."

As sociology, this hypothesis is quite plausible. As a justification of why little should be written about the ethics of gustatory pleasure, it leaves quite a bit to be desired.

The first defense of the hypothesis – the appeal to the thesis that the body is basically a vehicle – depends on an extremely contentious metaphysics, one not nearly as widely endorsed in the West as in the past. Section "The Ethics of Gustatory Pleasure: Case Studies from the Past" below returns to it. The second defense – the appeal to different kinds of pleasure – grossly underestimates the pleasure of eating bacon and overestimates the pleasure of reading, say, John Stuart Mill.

Hypothesis #5. *There is nothing special about gustatory pleasure. Just as pleasure from a massage or from sniffing flowers has garnered little attention because it is entirely unexceptional, so has pleasure from food garnered little attention*.

Perhaps this is the most plausible hypothesis. Yet it is not fully satisfying. As Korsmeyer rightly points out that gustatory pleasure is generated by food by simultaneously engaging numerous senses, making eating and tasting food as a pleasurable experience is intrinsically more complex than massages or flowers.

Also, eating and tasting food are a much bigger part of our life than massages and flowers. In fact, it is quite unlike the vast majority of pleasures in this way. Breathing can be pleasurable, but it's a pretty boring pleasure. Sleeping is not pleasurable (though lying in bed is). Sex isn't necessary. Being with other people isn't. Such acts might be necessary to having a good life, but, unlike food, they aren't necessary to having a life at all: celibate hermits are possible. Maybe these differences between eating and, say, sniffing flowers show that there is something special about gustatory pleasures.

So there is a lack of writing on the ethics of food, and the hypotheses for why there is this lack aren't entirely compelling justifications for why this *ought* to be the case. However, gustatory pleasure does get discussed in an ethical context from time to time, usually in the course of discussing gluttony and discussing the permissibility of killing animals for food and of gluttony.

Billions of animals are killed each year so that we can eat them. Before they are killed, they live lives containing an impressive amount of suffering. When it is permissible to kill or hurt things, there typically is some justification for this. What justifies our killing and inflicting suffering on animals? That death and suffering is nothing to them? That we need to do so to survive? Neither is very promising. It's striking that we raise and kill animals we enjoy eating. What role does our enjoying eating, say, cattle, play in justifying our hurting and killing cows? Is it *sufficient* justification? Or a case of giving our palate too much importance? For more on these questions, see The Good Life for Animals, Animal Welfare, and Meat: Ethical Considerations.

We will focus instead on gluttony. There are three main conceptions of gluttony, only two of which are tied to pleasure – those are the ones on which we focus. One conception, the one with which we won't be concerned, is that gluttony is overeating. It's simply stuffing oneself.

Another idea is that gluttony is overeating *that is motivated by the desire for pleasure*. So only some instances of overeating are gluttony. This is voiced by St. Thomas Aquinas when he writes,

> The vice of gluttony does not regard the substance of food, but in the desire thereof not being regulated by reason. Wherefore if a man exceed in quantity of food, not from desire of food, but through deeming it necessary to him, this pertains, not to gluttony, but to some kind of inexperience. It is a case of gluttony only when a man knowingly exceeds the measure in eating, *from a desire for the pleasures of the palate* (emphasis added). (Aquinas 1964)

A third – slightly odd to contemporary ears maybe – conception of gluttony is that it is a desire for gustatory pleasure that is somehow out of whack. For example, you might desire to eat nothing but Oreos. Or you might desire meat only if served perfectly. On this conception of gluttony, overeating is no part of gluttony. In *The Screwtape Letters*, Screwtape focuses on "gluttony of Delicacy" rather than "gluttony of Excess." The delicate glutton's "belly. . .dominates her whole life" though she does not eat much (Lewis 2003, pp. 328–329). But, as with the second conception, the desire for gustatory pleasure is crucial to the sin. What is producing these out-of-whack desires is a desire for pleasure.

That gluttony – the desire for gustatory pleasure, in particular – is sinful, that is, that it is a certain sort of moral wrong, stems from three different concerns.

First, it encourages eating and then overeating and, in doing so, diverts the eater's attention away from what's important (being a good citizen, loving God) and toward food, something not important. On this, Augustine writes,

> Although the purpose of eating and drinking is to preserve health, in its train there follows an ominous kind of enjoyment, which often tries to outstrip it, so that it is really for the sake of pleasure that I do what I claim to do and mean to do for the sake of my health. (Augustine 1961, p. 235)

And Aquinas writes,

> The vice of gluttony becomes a mortal sin by turning man away from his last end: and

> accordingly, by a kind of reduction, it is opposed to the precept of hallowing the sabbath, which commands us to rest in our last end. For mortal sins are not all directly opposed to the precepts of the Decalogue, but only those which contain injustice: because the precepts of the Decalogue pertain specially to justice and its parts, as stated above. (Q[122], A[1])

The view in both passages seems to be that the pleasure we get from food turns our attention away from the fact that food is merely a tool to keep our body in good health so that we can pursue whatever it is we should be pursuing and turns our attention toward the food itself, so that we try to get ever more pleasure out of it.

When Paul complains that, for some, their god is their belly or appetite (Phil. 3: 19), it is hard to believe that gustatory pleasure isn't a large part of what is to blame. It is hard to believe God would be a belly if eating weren't so fun. For no one is God a root canal.

Besides turning us away from what should be our focus, gustatory pleasure is suspect because it is a sign of bad character. The rich man who feasts in front of Lazarus flaunts his eating (Luke 16: 19–21). Generally, some hold that enjoying one's food is an expression of gloating or meanness. William Ian Miller argues that any well-off person these days is in the rich man's boat: "[The rich man] ate…in the face of Lazarus… We, on the other hand, must exercise a bit of imagination to see the starving as we eat (Miller 1997, p. 100)." Nevertheless, he thinks the starving are there and we indulge in the face of their starvation. To enjoy this food is to show off our bad character. For more see Ethics and Food Taste and Gluttony.

The pleasure we take might also be a sign to us of our own weakness. We continue to enjoy food even past the point at which we know it is good for us. Having a third helping of dessert, we continue to enjoy what we know is harmful to us.

Finally, the pleasure we get out of eating leads, some think, to significantly worse things than eating and overeating. Augustine claims, "the snare of concupiscence awaits me in the very process of passing from the discomfort of hunger to the contentment that comes when it is satisfied" (Augustine 1961, p. 235). And he writes, "The Israelites in the desert deserved rebuke, not because they wanted meat, but because in their greed for food they sulked and grumbled against the Lord" (Augustine 1961, p. 237). C. S. Lewis's Screwtape claims, "[Mere excess in food's] chief use is as a kind of artillery preparation for attacks on chastity (2003, p. 330)."

And the rich man in the parable of Lazarus is led by the pleasure he gets in eating to commit a crime of negligence toward Lazarus. (If the food were foul, he'd have been more likely to give some to Lazarus.) Expanding on this, Miller writes, "For that earlier economic order [eating too much – which is motivated by the pleasure of doing so –] was, in a sense, murder or a kind of criminal negligence, like drunk driving is for us (1997, p. 97)."

The Ethics of Gustatory Pleasure: Case Studies from the Past

Tea Ceremony

So the neglect of gustatory pleasure in the Western philosophical tradition is clear, in part due to the sense that yummy food does not create ethical human beings. There are cases, however, in which to engage in gustatory pleasure is understood to help attain ethical or moral virtue. And there are cases in which a consequence of pursuing moral and virtuous acts is the ability to pursue forms of gustatory pleasure. Examples of the first type of case can be found in Asian religious tradition, where the body and soul are not seen as disassociated as in the Western Christian tradition. In the religious traditions of Confucianism, Buddhism, and Taoism, it was considered that, "by disciplining the movements and postures of the body through ritual practice, one could refine the faculties of the whole human being (Parkes 1995, p. 82)." The moral and aesthetic self are displayed through particular bodily practices and rituals. The tea ceremony is one example. The ceremony involves a number of exact and exacting gestures made by both the host and guests: the size and look of the room,

the type of teacups and teapots, and the rituals of making, pouring, and drinking the tea. In a striking comparison to the Western discomfort with the body as a locus of virtue, in Japan "the practice is understood to be integral to cultivating and refining one's essential humanity (Parkes 1995, pp. 92–93)." The entire tea ceremony focuses on aesthetic pleasures – "a time when the wind blows" – and savoring the freshly brewed tea is especially important. For more see Buddhism and Food.

Hindus

In Hindu South Asia, "good" food integrates concepts of morality and aesthetics: pleasurable food must combine moral precepts, social relations, and sensory qualities. For Hindus, the good food you prepare marks your moral standing. This involves what you use as ingredients (your respect of the environment), those with whom you share your food (your similarity and difference with others), and your gifts of food (to people and to gods). For example, food offerings have long been a gift to the gods, an important component of religious ritual, both in people's domestic shrines and at the large pilgrimage sites or temples for the gods. Offerings of sacred food, or *Prasad*, are particularly powerful for in Hinduism "food is an inherently moral substance (Toomey 1986, pp. 55–56)." In a continuing practice through today, Hindu pilgrims offer *Prasad* to the deity and eat the leftovers; among devotees of Krishna, this food offers moral enhancement and gustatory enjoyment. For more see Hinduism and Food.

Land of Cockaigne

And then there is the notion that moral virtue will be *rewarded* with gustatory pleasure. This is exemplified in the medieval period in Europe. In medieval Europe, tales of the Land of Cockaigne were extremely popular, an important oral and written story that created a fantasy of a place somewhere on earth that always involved two promises: "Work was forbidden, for one thing, and food and drink appeared spontaneously in the form of grilled fish, roast geese and rivers of wine (Pleij 2003, p. 3)." This was a paradise on earth that transformed the sufferings of everyday life into an endless sea of pleasures, and the basic need for food becomes a desire constantly fulfilled. One version of the tale includes this description: By anyone old, young, weak, or strong./There no one suffers shortages;/The walls are made of sausages./Windows and doors, though it may seem odd,/Are made of salmon, sturgeon, and cod./The tabletops are pancakes. Do not jeer,/For the jugs themselves are made of beer (Pleij 2003, p. 33). This world was not only worry-free but also allowed for pleasures without the requirements of virtuous actions expected by the Catholic Church. The Land of Cockaigne resolves the long-standing question of whether gustatory pleasure somehow transgresses or undermines virtue by making it easy to both have food and enjoy the taste of it. Interestingly, Marion Rombauer Becker, coauthor of *The Joy of Cooking* (with her mother Irma Rombauer), named her country home "Cockaigne" and subsequently her favorite recipes followed suit, e.g., Brownies Cockaigne and Fruit Cake Cockaigne.

Brillat-Savarin

By the 1800s, the dialogue about necessity and pleasure in Europe had expanded beyond the confines of religious virtue and incorporated Enlightenment principles of rationality and individuality. Jean Anthelme Brillat-Savarin's work *The Physiology of Taste* was first published in 1825 and has been continuously in print ever since (including multiple editions in English). Brillat-Savarin was a philosopher of the French Revolution who argued that the pleasures of the table were now available to all social classes, another example of the benefits of democracy. For him, the pursuit of gustatory pleasure was a hallmark of any civilized person, a democratic principle. In one of his famous aphorisms that begin his book, Brillat-Savarin claims that "The Creator, though condemning man to eat to live, invites him to do so by appetite, and rewards him by enjoyment (Brillat-Savarin 1970, xxxiii)." He names such a pursuit of enjoyment "gastronomy" and argues that if foods (and drink) are defined by their simultaneous ability to provide pleasure,

nourishment, and virtue, civilized gastronomes rather than barbarous gluttons can be cultivated: "Gastronomy considers taste in its pleasures as well as in its pains. It has discovered the gradual degrees of excitation of which it is susceptible; it has rendered their action more regular, and laid down limits that a man who respects himself should never overstep (Brillat-Savarin 1970, p. 27)." In the modern period, Brillat-Savarin's new interpretation of gustatory pleasure as gastronomy rather than gluttony (gourmandise) has become more prevalent. For more see Brillat-Savarin and Food.

The Ethics of Gustatory Pleasure: Case Studies from the Present

In a recent essay, *Ethical Gourmandism*, Korsmeyer explicitly addresses the tension between ethics and pleasure when considering "tasty morsels." Borrowing on works of "ethical criticism" in evaluation of art, Korsmeyer asks, "is the very taste of the food we eat imbued not only with flavor but with moral valence? (Korsmeyer 2011, p. 89)." Focusing on taste sensation, she uses recent research in psychology to point out that taste sensations are never solely bodily experiences but are always mediated by moral and other concerns. She disagrees with Kent Bach's argument that a pleasurable taste experience can occur distinctly from knowledge of what the food is, where it is from, or how it is produced, writing, "my inclination is to believe that such separation is not only difficult but impossible (Korsmeyer 2011, p. 97; Bach 2007)." That is, one's *judgment about the ethics and aesthetics of what one eats modifies* the pleasures one gets from that food. Bach's position is that this is not so.

Korsmeyer's *dialectic* between the virtues of a food or drink and the pleasure derived from consuming that food or drink illuminates recent interventions into the modern industrial food system. The argument for virtuousness is often paired with discussions of the yumminess of foods due to the moral means of production, manufacture, distribution, etc. (For more see Jefferson's Moral Agrarianism and Eating and Environmental Sustainability.) Part of the locavore ideology is that knowledge of where one's food comes from increases how much one enjoys it. Knowledge comes from details about the aims of how the food should be made and the process by which that occurs: organic, local, artisan, fair trade, healthy, and sustainable are all concepts addressing this need to know. There are also particular types of foods labeled as good or virtuous: whole fruits and vegetables and grass-fed meat are examples. In the movement for changing the contemporary food system, this righteous insistence tends to revolve around a dichotomy between "good" and "bad" foods (Heldke 2011).

Thus, though it is tempting to see the new dialectic between the ethics and aesthetics of food and drink as a possible resolution to the long-term philosophical neglect of gustatory pleasure, pitfalls remain. Political philosopher Wendy Brown, in an analysis of the changing shape of political movements since the 1970s, makes a distinction between morality ("ethical wisdom") and moralism, arguing that moralism tends to adopt a "righteous insistence on knowing what is True, Valuable, or Important" (Brown 2001). A strong current of moralism exists in the food movement.

Part of the ideology of proponents of free-range farming is that food that is morally impeccable is also the yummiest. Dan Barber and Michael Pollan both argue that there is no need to choose between ethics and taste. (This functions as a response to the common claim that vegans must not like food very much: what's implicit in that common claim is that what the vegans think is ethical is not particularly delicious.)

Barber and Pollan might be right. Their being right would depend, of course, on what's delicious and what's morally unimprovable. A different line was taken by Thomas Keller and Andoni Luis Aduriz. In a 2012 *New York Times* article, Julia Moskin writes,

> Keller and Aduriz are united in the belief that their responsibility as chefs is primarily to create breathtakingly delicious and beautiful food — not, as

> some of their colleagues think, to provide a livelihood for farmers near their restaurants, to preserve traditional culinary arts or to stop the spread of global warming. . ..
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> When it comes to supporting communities, [Keller] said, he chooses to support Stonington, Me., by buying exquisite oysters from a seafood dealer there. There are oysters on Long Island, of course, but Mr. Keller believes that his priority has to be taste, above all other considerations like sustainability, seasonality and food miles.
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> "Is global food policy truly our responsibility, or in our control?" he asked. "I don't think so (Moskin 2012)."

Basically, their job is to produce what is delicious, ethics be damned. Their view seems to be closer to Bach's than Korsmeyer's and to be indifferent to whether Barber and Pollan are right. Keller's query as to the responsibilities of a high-end chef introduces the emerging problem of this particular dialectic between ethics and aesthetics. The "ethical" person who also gets to eat "yummy" food is first and foremost a *consumer*. These ethical acts are really economic purchases that happen to also provide calories to nourish our bodies. The modern dilemma about food is no longer the mind/body dualism, but the consumer/producer paradox. Wendell Berry calls it "industrial eating." For Wendell Berry, the industrial eater is an alienated consumer who no longer takes the time to even really savor his food, let alone have an engaged relationship with the virtues of certain types of food production. For more see Jefferson's Moral Agrarianism.

Summary

This entry has focused on the ethics of gustatory pleasure. Pleasure plays another role in food ethics. It was because animals are capable of pleasure – and also capable of pain – that utilitarians like Bentham and Mill argued that they should, as a rule, not be made to live nasty lives.

Although the continuing conflicts between food, pleasure, and ethics may or may not bode well for a clearly elaborated argument as to the ethics of gustatory pleasure, clearly more and more people, scholars included, are finally engaging with an ethics of pleasure that does incorporate the sensual elements of taste.

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