

## Defrosting Dinner: The Evolution of Frozen Meals in America

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Frozen food is ubiquitous; according to statistics released by the American Frozen Food Institute, the frozen food industry is worth \$22 billion, with the average American consuming 72 frozen meals each year (Alexander, 2005). However, things were not always this way. In the early 1900s commercial freezing technologies had only just been invented. At that point, refrigeration and freezing were used to overcome the seasonality of many food products (Josephson, 2008), but freezers had not yet found their way into supermarkets or homes. In subsequent years, developments in freezing technology and societal changes (particularly in the domestic sphere) paved the way for the emergence of an extensive frozen food landscape that offered convenience and variety to American consumers.

Given the widespread popularity of frozen foods, it is useful to investigate the evolution of these products and their significance in American industrial and consumer culture—in particular, their role in changing the way we view both food and the act of eating as a social activity. This paper will discuss the technological, historical, and economic conditions that facilitated the invention of early frozen dinners<sup>1</sup> and compare these products to modern frozen meals. In addition, it will address how frozen dinners have changed our perception of meals and domestic responsibilities. Beginning with the invention of commercial freezing technologies and birth of the American frozen food industry, this paper will then discuss the invention of the “TV dinner,” the precursor to processed frozen meals. Points to be addressed include the conditions that precluded the frozen meal’s invention, its impact on consumer life, and the nutritional quality of these meals. A final discussion will address the status of the frozen meal today and how it has evolved from its original form.

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<sup>1</sup> For the purpose of this paper, “frozen meal” or “frozen dinner” is defined as any frozen food product that is commercially marketed and sold as a complete meal. These products are a subset of “frozen foods” which include individual meal components (e.g., frozen peas, frozen pasta).

## History of Freezing Technology

Freezing is a food preservation process in which water inside cells crystallizes and immobilizes other molecules, suspending chemical activity (McGee, 2004). By immobilizing food's liquid water in solid ice crystals, freezing halts all biological processes and thus extends the storage life of food.

However, early freezing methods faced a number of issues: as meats or vegetables froze, the growing ice crystals would protrude into cell membranes and puncture them (McGee, 2004). When these foods were defrosted, they became soggy and unpalatable. A second issue with freezing (particularly when it occurred extremely slowly), was that it generally originated in intercellular regions where salt concentration was the lowest. As a result, concentration gradients would be established which resulted in water leaving the cells through osmosis. This dehydration led to dry, tasteless foods with low nutritional value (Josephson, 2008). For these reasons, freezing was not immediately adopted as a widespread commercial food preservation practice.

This changed in 1922, when Clarence Birdseye invented the "quick freezing" process (Pehanich, 2003). Michael Pehanich (2003) provides an account of this technology. As a naturalist employed by the U.S. government, Birdseye did work in the Arctic and noticed that when freshly caught fish was placed onto ice and exposed to wind and frigid temperatures, it would freeze almost immediately. When the fish was later thawed and eaten, it retained its fresh characteristics. From his observations, Birdseye concluded that quick freezing prevented the formation of large ice crystals. Armed with this knowledge, he replicated this process by placing food in cartons and freezing them between refrigerated surfaces under pressure. To capitalize on his invention, Birdseye started the General Seafood Corporation and, in 1930, began selling retail frozen foods in Springfield, MA. Birdseye contracted the American Radiator Corporation to produce freezers for retail display and by 1944 the company had leased the first insulated railroad cars to allow for national distribution (Pehanich, 2003).

## Birth of a Frozen Food Nation

When frozen foods arrived in the 1930s, they were not an immediate success. Grocery stores were unwilling to make the significant financial investment required to purchase freezers, and not enough families outside rural regions had access to home freezers to make these foods a fact of everyday life (A. Smith, 2009; C. Smith, 2001). Prior to World War II, frozen products mainly included fruits and vegetables. During the war, non-perishable canned goods were sent to aid the war effort leaving an abundance of frozen fruits and vegetables on the home front.

Consequently, many Americans were first exposed to frozen goods in this period (A. Smith, 2009).

It was also during the war that the first commercial frozen prepared meals were introduced. The Naval Air Transport Service would often travel long distances on trans-Atlantic flights, which required in-flight food service. Initially, fresh foods were taken on board and prepared in flight, but it was quickly determined that frozen pre-cooked meals were much easier to manage as they only required heating. Maxson Food Systems was contracted to produce these frozen meals which consisted of a portion of meat and two vegetables. After the war, the company attempted to market these meals to the public with little success (A. Smith, 2009).

Frozen meals became more appealing to the public in 1953, when Gerry Thomas, a Swanson company executive made his fateful visit to a Swanson distributor responsible for preparing food for overseas flights (A. Smith, 2009). Thomas noticed the three-compartment aluminum trays used to heat the in-flight meals and came up with an idea to fill them with frozen turkey and side dishes to be served in the home. Thomas pitched his idea to the Swanson brothers and a prototype was soon produced; consisting of a divided aluminum tray with a large compartment for a turkey entree and two smaller sections containing whipped sweet potatoes and green peas (A. Smith, 2009). Given the earlier failure of Maxson Food's frozen meal and the generally seasonal consumption of turkey, the Swanson dinner was a risky venture. In spite of consumers' previous unenthusiastic response to frozen foods and challenges related to processing, marketing and storage of these products, the Swanson "Television Dinner" (later shortened to TV Dinner) proved to be a success (A. Smith, 2009).

What then, was responsible for this turnaround in the frozen food industry? Certainly some of the credit for the successful reception of the Swanson dinner may be attributed to clever marketing. Early frozen foods were sold in unattractive packages which often left consumers uninspired (Josephson, 2008). Swanson contracted a Chicago-based advertising firm to design a six-color package featuring a television set, a bold departure from the two-color frozen food packaging that was common in freezer cases at the time (A. Smith, 2009). According to A. Smith (2009), the Swanson TV Dinner package "was the wonder of the industry because it reproduced the contents with such stunning, lip-smacking fidelity" (p.171). A second factor was the segmented tray itself with compartments for individual servings. According to food historian Betty Fussell, "The childlike packaging makes it appealing [...] The food is segmented, just the way we separate foods on our plates when we're children and don't want things mixed. It's a form of comfort to us. Everything is in its place," (as cited in Dixon Lebeau, 2004). The use of television as an advertising hook for the dinners was another brilliant stroke. By branding the meals as Swanson TV Dinners, the company was capitalizing on the popularity of this technology that had just entered mainstream American life (A. Smith, 2009). (The name TV Dinner also suggested to consumers that the meals

should be consumed in front of the television, a phenomenon which will be addressed shortly.) It's important to remember that although advertising played a big role in popularizing TV dinners; the positive reception of this marketing was a result of socioeconomic changes in consumer lives that occurred in the late 1940s and 1950s.

The post-war period saw the emergence of a reinvigorated consumer culture that was centered on both children and food (Endrijonas, 2001). During this period, incomes rose and Americans began exercising their new purchasing power on processed food products. Endrijonas (2001) argues that these foods were “both a symbol of a burgeoning manufacturing economy and an important indication of technological advancement” (p.168). In an article for the *Christian Science Monitor*, Dixon Lebeau (2004) interviewed nutritional anthropologist Deborah Duchon on the subject:

“People were working and living urban lives,” Ms. Duchon explains. “Cars made us mobile, and teenagers had their own lives. Convenience became a priority for us. In the '50s, society became very futuristic. We wondered what our lives would be like in the year 2000, and were very interested in technology and machinery. People embraced TV trays and TV dinners not because the food was good—it was awful—but because it was futuristic and convenient.

Arguably the most important cultural factor to contribute to the popularity of the TV dinner was the redefinition of domestic roles and the status of women. During World War II, women went to work in industry to take the place of men in service, necessitating the need for “convenience cooking” (Josephson, 2008). After the war, women realized that time they saved on household tasks could be spent on personal development, yet this trend was tempered by the notion that women should not neglect their domestic duties to the family (Endrijonas, 2001). Women who worked in jobs outside the home were also expected to retain their household duties; frozen dinners that came in disposable cartons were a convenient solution after a hard day's work. C. H. Smith (2001) cites an article written by Elizabeth Sweeney for the January 1949 *Journal of Home Economics* that summarizes this trend:

American homemakers... want and badly need time-savers in meal preparation. More American women are working today than ever before. They are women who get meals for families despite a day's work outside their home. They appreciate a product that is ready to cook, or half cooked to start with. They are willing to pay for that convenience. They can afford to pay for it because, though economic necessity is the single biggest reason for the increased number of working women, the net result is a higher-than-average family income. Frozen foods fill a need. (p. 190)

### The Impact of Frozen Dining

Having addressed the conditions that brought the frozen dinner to the family table, the impact these products had on the family meal can now be examined. While figures like Elizabeth Sweeney praised TV dinners for offering convenience and freedom to homemakers, early frozen meals

were also not without their critics. American author Philip Wylie was a prominent figure in this war, railing against the shunning of “from scratch” cooking methods of the past. According to Wylie, these new processes of cooking left the “appetite unquenched” by compromising the flavor and quality of food (as cited in C. Smith, 2001). Other writers defended frozen food, claiming that inferior flavor or texture was a result of improper preparation. In a 1956 article titled “Don’t Go Cold on Frozen Food,” writer Cathryn Donald noted that “Every day, shop assistants get complaints from irate housewives who boil quick frozen peas for 25 minutes instead of only six to eight ‘to make sure,’ then want to blame the resulting mush on the manufacturers” (as cited in Groves, 2004, p. 417).

As C. Smith (2001) notes, some critics claimed that the frozen food industry was complicit with “the homogenization of American cultural values and the dissolution of traditional social authority” (p. 187). Convenience cooking meant that each family member could eat a different meal at the same—or different—time, which began to erode the homogeneity of the traditional home-cooked meal. According to Andrew Smith (2009), “the end of the family meal [...] meant changes in ‘family relationships, cultural identity, [and] ethnic diversity,’ which were traditionally linked to preparing and consuming meals together” (p. 173). By removing much of the labor involved in meal preparation, mealtimes were no longer “sacred,” and the requirement to eat what the cook provided no longer held the weight of long hours spent slaving over a hot stove.

The informality of dinnertime rituals may have also been attributed to the linkage of meals and television that was alluded to earlier. The advent of frozen dinners moved the family away from the dining table and in front of the television, necessitating less communication between family members. Some families began installing their television sets in the kitchen or dining room as a way to entice their children to eat (Groves, 2004). Television executives took notice of these trends, showing popular children’s programs or the six o’clock news at these times in an attempt to target advertisements at the entire family (Groves, 2004). The tradition of eating together was being eroded by the appearance of frozen foods, a trend that is present even today where the average American family consumes less than five meals together each week (A. Smith, 2009).

Yet even in spite of its critics, the frozen food industry continued to thrive through advertising and the introduction of new products. Early advertisements highlighted the convenience and “glamour” of TV dinners. A 1963 magazine advertisement for Scotts brand TV dinners stated: “No preparation, no cooking, no washing up, just heat 'n' eat. It's like dining out in your own home! Here's the most convenient meal that ever came into a kitchen—a perfectly cooked dinner sealed into its three-compartment foil tray. Out of the fridge, into the oven, on to the table—the perfect answer for all occasions when you haven't time to cook” (as cited in Groves, 2004, p. 417).

### Frozen Food and the Modern Meal

Even in modern times, frozen dinners have retained their distinction as being a simple and convenient means of meal preparation. Throughout the last 50 years a number of new brands have emerged in the wake of the success experienced by the Swanson Company. The company itself has expanded its selection from the standard turkey dinner of the 1950s to include boneless fried chicken, meatloaf, Salisbury steak, macaroni and cheese, and a line of larger portion “Hungry-Man” meals. Although the meals remain popular, Swanson has faced some criticism over the nutritional content of their meals. For example, the 510-calorie Swanson Fried Chicken dinner contains 23 grams of fat and 800 mg of sodium (Livestrong.com, n.d.). The Swanson Hungry-Man Roasted Turkey Breast dinner is 650 calories and contains 22 grams of fat and 3140 mg of sodium (the daily recommended sodium intake is 2300 mg (Martin, 2011)) (Livestrong.com, n.d.).

It is incorrect, however, for all frozen meals to be defined as “unhealthy” by default—in fact, a large market for health and diet-related frozen dinners has emerged in recent years. With the emergence of a more health and diet-conscious society, the frozen food industry has had to comply with consumer demands in order to retain their competitive edge. Brands like Stouffer’s Lean Cuisine dinners offer consumers calorie-reduced, low-fat, or portion-controlled meal options. Weight-management programs like Weight Watchers and Jenny Craig both offer frozen meals as a way for participants to adhere to their strict dieting guidelines without having to exercise effort in acquiring and preparing diet foods. Even name-brand products not directly marketed by weight loss programs are placing information about the meal’s nutritional content or its adherence to some particular diet in prominent positions on the box. Marion Nestle defines “nutrition confusion” as a phenomenon that arises from the ideology of deconstructing foods into their particular nutrients (as cited in Scrinis, 2008). These frozen meals allow consumers and dieters to cope with the confusing landscape produced by nutritionism by taking the “right” combination of processed foods and packaging them in a single nutritionally-balanced meal.

Diet-related meals are not the only new addition to the frozen food family; ethnic and gourmet foods are now also finding their way into the freezer section. Frozen variations of ethnic dishes raise a number of issues of authenticity and the meaning of ethnic foods in modern Western contexts. Lisa Heldke (2001) brings up the issue of “food colonialism” in which Americans consume ethnic foods with little or no regard to the cultural context of those foods (p. 77). It seems as though mass-produced frozen ethnic foods take this idea to the extreme by not only taking these foods out of their cultural context, but also away from any “traditional” means of production and presenting them in an Americanized “TV dinner” form. Uma Narayan (1995) argues that Western consumers “need to

cultivate more reflective attention to complexities involved in the production and consumption of the ‘ethnic foods’ they eat. They might, for instance, reflect on the race and class structures that affect the lives of the workers who prepare and serve that food” (p. 78). This goal is difficult to achieve when dining in ethnic restaurants and becomes even harder when the labor involved in factory production of frozen ethnic meals is so far removed from the actual dish itself.

The second category of frozen foods recently introduced includes organic or gourmet offerings. Examples of these dinners include Confetti Rice Pilaf with Chicken in Honey BBQ Sauce (Organic Classics), Amy’s Black Bean Enchiladas with Spanish Rice and Beans (Amy’s Kitchen) and Blue Ginger Tangerine Beef and Leeks Noodle Bowl (Ming Tsai). Olive Street Table (2011), a company that produces frozen gourmet foods, provides the following information on their website:

Today’s frozen organic food is of the same quality that you would expect to see in a fancy French bistro, but comes with a lower price tag and a higher bill of health and convenience. There is no need to settle for inferior food products just because they are frozen, when you have all these new gourmet possibilities at your fingertips.

As indicated earlier, frozen foods have also continued to change the meanings associated with the meal as a social gathering. Consumers are now busier than ever and their schedules are continuing to redefine the concept of a meal. Even in my own family where meals were more often than not cooked from scratch, there were days when the cooked entrees would be left in the kitchen for each family member to individually serve themselves as time and their schedules allowed. Prior to the advent of freezing technology and the subsequent rise of convenience foods in general, this highly informal mode of eating meals was largely unheard of. In today’s society where a meal can be removed from the freezer and heated in a microwave in a matter of minutes, a sit-down meal is almost becoming a luxury and the kitchen or dining room has become a “transition area” where one may grab a quick bite after work or school before heading off to the evening’s activities.

### Conclusion

In the process of tracking the frozen dinner from its origins in the 1940s to its diverse modern incarnations, we have discussed the quick-freezing technologies and social conditions that made these meals popular. Despite the fact that frozen foods were not particularly popular following their introduction into American consumer culture, Swanson’s development and successful marketing of their TV dinner in the post-war era ushered in a new age of convenience foods. Following their widespread adoption, TV dinners began to permanently change how American families viewed mealtimes, allowing women to reallocate time previously spent in the kitchen to other forms of personal development. TV dinners also played a large role in bringing television to the dinner table and removing the

formality previously associated with meals. Modernization has seen continued success for TV dinners and the diversification of frozen dinners to include diet meals, ethnic foods, and gourmet or organic options.

However, despite the fact that frozen foods are now treated with a certain air of ubiquity, it is important to acknowledge and understand the cultural meanings that surround these foods, particularly in the case of the modern iterations of these dinners. Although the convenience of frozen dinners greatly reduces the labor that we put into a meal, this labor is not “lost” so much as reallocated. Given these facts, our appreciation of convenience foods should not progress to the point where we fail to recognize the labor and resources required to make these products. While frozen foods will likely never completely replace the satisfaction of a “home-cooked” meal, so long as we acknowledge the issues surrounding the consumption of frozen foods, we can continue to take advantage of the freedom they afford us in our pursuit of activities outside the kitchen.

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