

Using the Concept of Fashion to Link Diverse Programs

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Abstract

Fashion is often described as a temporal trend illustrated with a bell curve; an item or behavior is adopted in increasing frequency until a saturation point is reached as adoption declines, and is most-frequently applied to appearance behaviors and modes of dress. This paper seeks to apply the concept of fashion to areas other than appearance and dress in order to demonstrate its usefulness for studying other topics, as well as describing how programs with diverse curricula can be linked together. We look at fashion in adoption of types of statistical analyses, specific breeds of dogs as pets, and farming practices in the U.S.

Keywords: dog breeds, farming, fashion, statistics, trends

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Introduction

Departments housed in land grant agricultural colleges often have the unenviable and difficult task of justifying their existence as collaborative entities that complement each other. Programs like fashion design and merchandising, family resources, and agricultural sciences have historic roots with seemingly little relevance to each other in today's academic milieu. Putting politics aside, educators in such programs in agricultural colleges often are left wondering how to develop cross-disciplinary curriculum that can address the linkages between programs yet still educate students for careers in their respective fields. This paper demonstrates how the concept of *fashion*, or the collective process of group acceptance for a specific period of time, is relative to many of the disparate disciplines found these colleges.

We used a diverse assortment of materials as data, including newspapers, academic journals, comic strips, and the opinions of experts. The topics we chose are based on the authors' area of expertise and current curricula. After a discussion of the academic concept fashion, we examine the influence of fashion on quantitative statistical analyses, the adoption of specific breeds of dogs as pets, and farming practices. We conclude with a discussion of these phenomena within the academic literature on fashion in clothing.

Some scholars have defined fashion as *change* or *newness* (e.g., Sapir 1931; Wilson 1985), while others have defined it as an unseen force that produces change. Craik (1994) wrote, fashion is "cultural technology that is purpose-built for specific locations" (p. xi), while Svendsen (2006) noted, "fashion is a general mechanism, logic or ideology that..... applies to the area of clothing" (p. 12), and Lipovetsky (1994) argued that "fashion is a specific form of social change, independent of any particular object (p. 16). More recently, Reilly (2014) summarized varied definitions of fashions to offer, "fashion is (a) an intangible force (b) that is manifested by tangible products (c) that represent newness relative to prior fashion products, (d) are adopted by a group of people, and (e) are reflections of society and culture" (p. 12). The commonality among these descriptions is that fashion implies a change in adoption over time.

Central to these definitions is change, which can manifest in two forms: cumulative and contextual. Cumulative change is a progression whereby *X* is improved to become a new form of *X*. Contextual change is dictated by events and technology in the environment, and therefore *X* is discarded and is replaced by *Y*. Both are related to fashion change—some clothing fashion trends are predicated on their prior version (such as, skirt length) while other changes are based on environment events (such as technological advancements in textile development). In general, fashion change is subject to cultural, social, personal, and industrial forces (Hamilton 1997). Within these four areas, one can find political, technological, social, and economic mechanisms that also affect the adoption, use, and discarding of fashion.

Example 1: Statistical Analyses

Fashion is evident in the types of statistical analyses used in 20th century academic research studies. These analyses have steadily evolved, beginning with relatively simple descriptive statistics and leading to more complex analyses. Technology has

been dramatically enhanced the use of advanced statistical methods in research. Statistical methods obviously vary greatly among academic fields, but generalizations of the popularity of common analyses may be made by examining statistical software industry standards. For most of the 20th century, researchers used only descriptive statistics (e.g., means, medians) and graphs (e.g., bar-charts) in their research studies, and the findings were publishable in top-tier journals (e.g., Steele, 1951). These analytical methods were replaced by correlations, which were replaced by regression analyses circa early-1990s. The current preferred practice appears to be the use of structural equation modeling. More frequently than in prior decades, academic journals appear to require the use of complicated statistical methods in most researchers' manuscripts unless the research study and the findings are extremely extraordinary and/or original. This trend is supported by Figure 1, which has been created by examining all issues of *Clothing and Textiles Research Journal (CTRJ)* from 1982 to 2015.

Year	Sample Size	Descriptive stats	T-test	chi-square	ANOVA	ANCOVA	MANOVA	Correlation	Regression	Multiple Regression	Factor Analysis	Path analysis	SEM	LSD	Tukey HSD	Cluster	Lit review	Qualitative	Development of Design
1982	116-176		0	0					1	1								1	1
1983	5 fabrics - 2274 articles 4M - 1978F daytime		1	2					1	0	1	1						1	3
1984	fashion illustrations		3	1					3	1		1							0
1985	4M - 1330 US Army F		5	2	3	5			5	2		3				5	3		4
1986	55 artists-210		5	0	1	3			2			1							2
1987	37 dated Victorian quilts - 1113 students		11	4	1	8			7	1	1	5		1				4	5
1988	5 dye-mordant combinations - 1614		12	7	7	12		2	4	2	3	4			1	1		7	2
1989	6 fabrics - 950 older adults & 750 younger		8	4	3	6		1	3	2	1	4						4	2
1990	3 yarns/6 direct dyes - 502		9	8	3	2	3	1	6	1		5		3		1	5	7	1
1991	17 fabrics - 475F		21	9	5	15	1	2	8	3	1	7		3	2		7	2	
1992	1 apparel retailer/1 specialty retailer -		11	2	2	12		3	4	2	2	4			2		11	9	
1993	10 random lengths of fiber - 482F		9	6	6	9		4	7	2	2	7		3	1		7	4	1
1994	4 experimental fabrics 649		4	5	1	9		6	2	2	1	4		3	1	1	3	4	
1995	3 types of nonwoven fabrics - 489		20	8	4	13		5	3	2		3		3			5	8	
1996	2 sets of nonwoven fabrics - 6652		16	6	5	6	1	6	4	3	1	4					7	3	
1997	2 naturally colored cotton fabrics - 1954		4	2	1	10		4	3	0		3			2	1	8	2	
1998	10 design associates - 1172		7	1	2	1		1	3	1				1		1	3	10	
1999	16 - 505 Korean consumers		11	4	1	7		3	4	3		2	1	1	1		3	8	
2000	3 samples of 13 100% wool fabrics of various		8	2	1	2		1	4	2	1	2					13	12	
2001	10 categories of clothing - 571		6	0	2	3		1	3	1	2	1					3	7	
2002	7 textile executives - 398 tourists & 307		16	3	3	7			4			1			2	1	5	20	
2003	4 colorants - 1011 pairs of pants		12	2	1	4		3	2	2	1	4		1	1		2	5	1
2004	4 gay men that cross- dressed publicly - 203F		5	5	2	2			3					1			6	8	3
2005	6-531 3 artisan		7	1	2	6		2		3		1			1		2	18	6
2006	entrepreneurs - 1200		5	2	3	4		3	3	1	6	2					3	6	1
2007	1 fabric/agents - 278		6	0		2		1	3	4		1			2		3	3	3
2008	12F - 600 articles		4	1		3			2	3		1			1		4	10	5
2009	15 - 1126 patents		6	5	3	2		2		3	2	1		3	1		2	9	1
2010	65F - 361F		6	8	1	3		3	2		2	1		5			1	8	1
2011	7M - 858 30 tattooed women -		10	2		2			2	1	1	1		4			2	18	
2012	2981W from size USA 2 kinds of warp -		13	2		2		1	3	3	1	2		4	1		2	6	
2013	knitted fabric - 365		5	2	1	5		2	4	4	1	2	1		1		3	12	
2014	9 - 909		11	7	2	3		1			1	3	3	3			1	9	
2015	15 - 129		2	1		2			4				1	1				3	

Figure 2. Statistical methods used in *Clothing and Textiles Research Journal* from 1982 to 2015

In *CTRJ*, academic articles with areas of fashion-related disciplines (i.e., merchandising, retailing, consumer behavior, aesthetics, costume history, product development, and textiles) have been published since 1982. Particularly, research

studies with merchandising, retailing, and consumer behavior topics have used increasingly sophisticated and complex statistical methods, partially because: (1) the research area overlaps with the business or economics field of research where complex analyses are commonly used; and (2) competition among researchers to be published in top-tier journals has increased. For instance, even if the research problem can be explained by multiple regression, researchers and journal editors may prefer to use Structural Equation Modeling (SEM) method. SEM has been increasingly used in research studies published in *CTRJ* since 2009 (See Table 1).

The adoption of newer and more complicated statistical methods was made possible by the viability of computer software products such as Statistical Package of the Social Sciences (SPSS), which was originally released in 1968 and available for use only on mainframe computers. It was quickly adopted by a “small, but enthusiastic, user community” of mostly university faculty.

(<http://www.spss.com.hk/corpinfo/history.htm>). Demand increased when its manual (later named as one of academia’s most influential books, Wellman, 1998) was adopted by the US government and the private sector. The availability of SPSS for personal computers in the mid-1980s and on Windows by the 1990s helped in its dissemination. Indeed, “SPSS technology has made difficult analytical tasks easier through advances in usability and data access, enabling more people to benefit from the use of quantitative techniques in making decisions” (<http://www.spss.com.hk/corpinfo/history.htm>). As SPSS has been increasingly utilized, additional software modules, like Amos, have enabled more researchers to perform SEM as well (IBM, 2015). As fashion always changes, researchers may have to keep open-minded by being ready to use new and innovative statistical methods.

We asked two former editors¹ of different journals if they felt researchers preferred advanced statistical analyses. Both agreed and remarked that reviewers sometimes commented that newer, more advanced analyses were necessary for publication. Both noted that some people believe ANOVA, MANOVA, regression, and factor analyses have gone out of style in favor of structural equation modeling (SEM; personal communication, 2015). We also asked three faculty members² at different universities were about their experience. One reported, “I’ve been told by reviewers [of papers submitted to journals] that I need to use more advanced statistics. They really want SEM! But that wasn’t the purpose of my research, but it seems you have to learn SEM if you want to get published” (personal communication, 2015).

But do changes in preferences for statistical analyses follow trends? Dr. P. Adam Kelly³ (personal communication, 2015) contends that changes are “not so much trends, but evolutions in statistics due to advancements in large-sample data analysis capabilities and the proliferation of affordable and relatively easy-to-use software.”

Quantitative research methods are not the only type of analyses subject to change. The number of qualitative studies published in *CTRJ* has been increased since the late 1990s and many studies use different methods (e.g., interview) than before (See Table

¹ Both asked to remain anonymous and both ask their affiliated journals not be mentioned.

² All three asked to remain anonymous.

³ Dr. Kelly is an Adjunct Associate Professor in the School of Medicine at Tulane University and has expertise in statistical analyses and research methods.

1). This is supported by communications with two researchers versed in research methods. Dr. Sharron Lennon⁴, said, “Qualitative analyses were not ‘fashionable’ in the 80s among scholars who studied behavior aspects of dress.....more acceptance of qualitative work among scholars who studies behavior aspects of dress.” Similarly, Dr. Kelly notes, “Surprisingly, in medical as well as other fields, the growth industry in analysis today is qualitative. And statistical methods related to that, such as cluster analysis, multidimensional scaling, and classification accuracy (such as discriminant analysis) are getting more attention.”

This example highlights both cumulative and contextual change. The advancements of each new method built upon prior achievements, where newer eventually replaced older. Fashion change is evolutionary where a change grows out of its predecessor. It also aligns with our argument that change is cumulative. Each statistical analyses grew out of its predecessor and “replaced” it by being more advanced or sophisticated. Fashion in statistics also illustrates contextual change, progressively modern analyses rely on increasingly sophisticated technology.

Example 2: Dog Breeds

Another area that shows patterns proposed by fashion theories is the popularity of dog breeds. Interactions between dogs and humans go back thousands of years. Dogs helped human to herd and hunt, and human settlements were sources of food and shelter for dogs. Dogs were kept and bred for specific functions, only the royalty and very rich kept them as symbols of social standing (Podberseck, Paul, & Serpell, 2005). However, this changed in the late nineteenth century, with the advent of industrialization and the growth of a leisured middle class (Sampson and Binns 2006). Interest in Darwin and the emerging ‘science’ of eugenics led to purposeful distinctions among dog breeds and a rapid growth in the number available to the general public. Dog ownership became a status symbol of for the middle class.

Trends in Dog Ownership in the 20th and 21st Centuries in the United States

When the American Kennel Club, or AKC, was founded in 1884, it recognized 9 dog breeds⁵. None of these breeds have recently made the list of the 10 most popular breeds and 3 of them are now in danger of disappearing as breeds (Coren 2013). The AKA currently recognizes 184 breeds, registration statistics in general have change drastically in the 135 years since its founding. Statistics published over the last 150 years tell the story of the rise and fall in breed popularity (American Kennel Club 2015).

There have been fluctuations in the “top ten” lists. Figure 2 lists the top ten most popular dog breeds registered with the AKC since its founding and illustrates several trends in dog ownership. First, many breeds have been popular during this time. Twenty-eight are represented. Second, breeds vary in popularity. Two breeds (Cocker Spaniel and Beagle) are each represented more than 10 times over the 12 decades, while five others (e.g., Saint Bernard, Basset Hound) are each represented

⁴ Dr. Lennon is a professor in Apparel Merchandising and Interior Design at Indiana University and has expertise in statistical analyses and research methods.

⁵ Chesapeake Bay Retriever, Clumber Spaniel, English Setter, Gordon Setter, Irish Setter, Irish Water Spaniel, Pointer, Sussex Spaniel, Cocker Spaniel

only once. Third, there are clear temporal trends in breed popularity. The Collie made the top ten list 7 out of 8 decades between 1890 and 1960, but does not appear after that. The Poodle did not appear on the list until 1950, but has made it every decade since.

	1890s	1900s	1910s	1920s	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s
1	Saint Bernard	Collie	Boston Terriers	German Shepherd	Boston Terrier	Cocker Spaniel	Beagle	Poodle	Poodle	Cocker Spaniel	Labrador Retriever	Labrador Retriever
2	English Setter	Boston Terrier	Airedales	Boston Terrier	Cocker Spaniel	Beagle	Cocker Spaniel	German Shepherd	German Shepherd	Poodle	Rottweiler	German Shepherd
3	Pointer	Bull Terrier	Collies	Chow Chow	Fox Terrier	Boston Terrier	Boxer	Beagles	Doberman Pinscher	Labrador Retriever	German Shepherd	Golden Retriever
4	Collie	Irish Setter	Beagles	Pekingese	Scottish Terrier	Collie	Chihuahua	Dachshund	Beagle	German Shepherd	Golden Retriever	Beagle
5	Fox Terrier	Pointer	Bulldogs	Fox Terrier	Beagle	Boxer	Dachshund	Chihuahua	Dachshund	Doberman Pinscher	Cocker Spaniel	Bulldog
6	Cocker Spaniel	Cocker Spaniel	French Bulldogs	Airedale Terrier	Pekingese	Dachshund	German Shepherd	Pekingese	Irish Setter	Golden Retriever	Poodle	Yorkshire Terrier
7	Irish Setter	Bulldog	English Setters	Collie	Chow Chow	Pekingese	Poodle	Collies	Cocker Spaniel	Beagle	Beagle	Boxer
8	Beagle	Airedale Terrier	Cocker Spaniels	Beagle	English Springer Spaniel	Fox Terrier	Collie	Miniature Schnauzer	Miniature Schnauzer	Miniature Schnauzer	Dachshund	Poodle
9	Great Dane	Beagle	Pekingese	Cocker Spaniel	Pomeranian	English Springer Spaniel	Boston Terrier	Cocker Spaniel	Labrador Retriever	Dachshund	Yorkshire Terrier	Rottweiler
10	Bull Terrier	Irish Terrier	Bull Terrier	Bulldog	Bulldog	Scottish Terriers	Pekingese	Basset Hound	Collie	Chow Chow	Pomeranian	Dachshund

Figure 2: Top Ten Purebred Dog Breeds in the U.S. by Decade

The figures discussed above provide evidence for trends in dog breed ownership. The remainder of this section will discuss three potential factors that have influenced fashions in popular dog breeds over the past 120 years: political factors, popular culture, and changes in lifestyle and societal values.

There is evidence for the influence of political factors on the popularity of dog breeds in the United States. For example, the German shepherd was the most popular dog breed during the decade of the 1920's. However, it is completely absent from the list during the 1930s and 1940s, during the Great Depression and World War Two. Howell (2013) argues that these political factors influenced “dog nationalism.” During the depression, ownership of powerful, purebred dogs was seen as frivolous. During World War Two, ownership of German dogs was seen as unpatriotic.

Pets owned by U.S. presidents also appear to influence popularity. Presidential pets receive a great deal of attention in the press. Evidence suggests that presidents and their advisors are strategic in their use of pets to boost approval ratings or distract from scandal (Maltzman, Lebovic, Saunders, & Furth 2012). The history of presidential pets provides a few examples (Presidential Pet Museum, n.d.). For example, FDR had a beloved Scottish Terrier, named Fala, who frequently performed tricks for White House visitors. This breed only shows upon the popular dog breed list in the 1930s and 1940s, when FDR was president. Gerald Ford's Golden Retriever, Liberty, had a litter of puppies while Ford was president in 1975, an event heavily covered in the press. The Golden Retriever made its debut on the AKC list in the 1980s and has held a prominent position every decade since.

Memes in popular culture also influence trends. In 2009, the AKC surveyed people about their favorite dogs in popular culture (AKC 2009). Snoopy, the cartoon Beagle

featured in the *Peanuts* comic strip, was overwhelmingly the top dog in both the cartoon and overall categories of this survey. The Beagle has been listed among the most popular dog breeds for all 12 decades since the 1890s, however the only time it held the number one position was during the 1950s, the decade the popular *Peanuts* cartoon was introduced. Lassie, a Collie and the canine hero of short stories, books, movies, and television was rated as the most popular movie dog. Eight of the eleven movies in the Lassie film franchise were released between 1943 and 1963. Collies were consistently on the AKC's top ten list from the 1940s through the 1960s. Collies were also on the top ten list for several decades before that time, illustrating a potentially reciprocal relationship between entertainment and real life.

Societal beliefs continue to influence the popularity of dog breeds. At this point, it is important to note one major weakness in using the AKC list of dog breeds as a marker of public preference – it only recognizes registered purebred dogs. Two relatively recent trends in dog ownership appear to go beyond breeds. The first of these is the popularity of 'rescue' dogs, those that have been adopted from shelters. Adopting rescue dogs is endorsed by several celebrity spokespeople. Although the rescue dog movement arose from the desire to prevent unwanted dogs from being euthanized, it has grown to the extent that the demand for rescue dogs is exceeding the supply (Dahler 2015). This movement appears to be related to the broader societal trends of recycling and going green. Another recent trend in dog ownership is a preference for 'designer dogs'. These dogs are purposeful hybrids of existing dog breeds and include such dogs as 'Labradoodles' (labrador/poodle), 'Puggles' (pug/beagle), and 'Chiweenies' (chihuahua/ dachshund). The designer dog trend parallels consumer desire for individualized goods, which are now readily available from internet retailers.

Changes in preferences for dog breeds illustrate contextual change, where fashion is influenced by forces such as politics, entertainment, and social movements. It also demonstrates cumulative change with the introduction of designer dogs where breeders select the strengths and desirable characteristics of existing breeds to create a new variety.

Example 3: Farming Trends

Farming trends are third area that illustrates changes in fashion. For millennia, humans have created, adapted, and eventually discarded methods of food production. Even if the perspective is limited to United States history, agricultural producers have adopted new technologies, used them in greater frequency, and upon saturation, or as often the case, as new innovations were developed, discarded the old for the new. Decisions for change have been primarily based on the profit motive – new technologies have improved the bottom line or reduced the amount of labor necessary to produce the crop. However, some decisions of *what* to farm have also been influenced by taste and political factors.

Trends in corn crops

When English settlers arrived in the Americas, they sought to find products to sell back to Britain. Among the many crops available, settlers adopted Indian maize (corn) as the dominant cereal crop and utilized the same farming methods that they

used in Britain. Corn was easy to grow and productivity increased as new tools were invented and adopted. By 1700 English farmers had devised dozens of plow designs, most of which were designed with wooden moldboards. While widely used, they were hard to pull, broke easily, and did not fully turn the soil. By 1730, the first moldboard with the double curve of a modern plow was invented in England and used continuously by colonial farmers through the American Revolution.⁶ But these British plows were not well suited to the rich American soil, so new designs appeared almost every year, including one invented by Thomas Jefferson who created a new moldboard made of cast-iron to replace wooden varieties. The first American patent for a cast-iron moldboard was issued in 1800. As a measure of productivity, in 1800, it took 300 hours of labor to produce 100 bushels of corn on five acres of land. The amount of labor hours and acreage required would continually decrease over the next 200 years.

In 1837, a blacksmith, John Deere, replaced cast-iron shares with steel which could be sharpened and polished. This invention made it easier to turn the rich and deep, virgin American soils and was quickly adopted by farmers. In most soils, a single plow required two draft horses with the farmer walking behind. As early as 1864, the standard plow became a riding plow with wheels and a seat and pulled by four horses. With innovation came efficiencies; it now took 75-90 hours of labor to produce 100 bushels of corn on two and one half acres.

Cutting the crop, threshing the grains, and winnowing out the chaff were inefficient and labor intensive. Cyrus McCormick built and patented the first successful grain reaper in 1834, but adoption by other farmers took time. Horse-drawn, steam-powered threshing machines were being used in the 1870s, but it was not until 1880 that the first “combine,” an implement that combined reaping and threshing, was invented. It now took 35-40 hours of labor to produce 100 bushels of corn on two and a half acres.⁷

None of these innovations in agriculture would replace horses and mules as draft animals, until 1892 when the first gasoline-powered, internal combustion engineered “traction machine” was invented. While horses and mules remained integral to small scale agriculture, they also consumed up to 20% of the crop. Land devoted to the raising and pasturing of the draft animals meant less land devoted to the “cash” crops. Over the next 20 years, several inventors devised different versions of the “tractor.” The Ford Motor Company was the first to mass produce one: the 1918 Fordson was advertised as costing less than a good pair of mules. But it was also cheaply made, hard to start, and unfortunately, dangerous, killing many farmers. Competition from the International Harvester Farmall and the John Deere Company brought changes resulting in improved productivity. Costs of tractors dropped and more farmers adopted these labor saving devices. By 1930, it took 15-20 hours of labor to produce 100 bushels of corn on two and one half acres of land.⁸

During World War II, the demand for increased food production and industrial innovation, sowed the seed for an American agricultural revolution. Concurrently, the number of farmers in the United States decreased, as many farmers were serving in

⁶ When the United States was founded in 1776, farmers made up 90% of the labor force.

⁷ By the end of the nineteenth century, farmers comprise 49% of the labor force.

⁸ By 1930, one farmer provided food for 10 people in the US and only farmers comprise 38% of the labor force.

the military and farm families migrated to cities to high-paying industrial jobs. Despite fewer farmers, productivity per acre increased. By 1945, it took 10-12 hours of labor to produce 100 bushels of corns on just two acres.

In the 1950s and 1960s, the world's population rebounded from the devastation of WWII and the industrial base shifted from war material to products (e.g., seed, machinery, fertilizer) to support the demand for food. The number of tractors on farms now exceeded the number of horses and mules for the first time; familiar ways of farming were discarded in favor of new techniques. By 1960, one American farmer fed 26 people. By 1970, one farmer feed 48 people.⁹

Corn productivity continued to grow into the 1980s, driven by the demand for ethanol, corn for animal feed, and high fructose corn syrup. By 1980, one farmer fed 76 people and it took less than three hours to produce 100 bushels of corn on one acre. The demand for greater productivity in the corn crop shifted the emphasis from in field production methods to emphasizing the genetics of the corn plant. Breeding, crossbreeding and creating new hybrids moved the production of corn seed from a competitive sector of agribusiness, comprised primarily of small, family-owned farms, to an industry dominated by a small number of transnational corporations.

Information technology, global positioning, and precision farming techniques were adopted by agriculture in the 1990s. Less than 3% of the population are farmers, yet one farmer feed 100 people. In 1995, the first transgenic corn seed, Bt corn, was produced. In 1997, The US Department of Agriculture, Federal Drug Administration, and Environmental Protection Agency deregulated Monsanto's "Roundup Ready" corn, genetically modified corn plants engineered to be herbicide-resistant. Commercialized in 1998, this genetically modified crop permitted usage of Roundup® to kill weeds in the field, consequently reducing the amount of tillage, and overall costs, and labor required by farmers. Genetically modified crops were now widely accepted by farmers. In 2012, one farmer fed 140 people and it took less than 30 minutes of farm labor to produce 100 bushels of corn on less than one acre.

Influences on trends in corn crops

Farming corn was necessary for English colonists, as both a source of their own food and as a commercial product. The economic motive has remained steadfast through the history of farming. Farms from the American colonial era were small, single family farms until the middle of the 20th century when the industrialization of farming occurred. Government price supports for corn farmers adopted during The Great Depression created incentives for farmers to produce more corn. This shifted the nature of agriculture away from small acreage, multi-cropping, subsistence farming to bigger farms. Technological innovations--a new hybrid corn seed, petroleum-based nitrogen fertilizer—also brought about dramatic improvements in productivity. In addition, soldiers returning from WWII became agriculture college students thanks to the United States GI Bill. Technology transfer through the Land-Grant University system and the Cooperative Extension Service sped the adoption of new technologies.

⁹ By 1970 farmers comprise 3.4% of the population

Biotechnology was another important influence on corn production. It ushered in a new era of altering the genetic makeup of corn seed to develop new varieties of corn that were resistant to pests and weedkillers. The first transgenic corn, Bt corn, contains a toxin produced by bacterium to kill a major corn pest, the European corn borer. Other advances included the development of genetically modified corn that is resistant to Roundup® weed killer.

The US influence on corn crops was just as strong in the 1970s when farmers were encouraged to plant corn “from fencerow to fencerow.” The “get big” mindset promulgated by the US Department of Agriculture of the 1970s resulted in the industrialization of American agriculture, but simultaneously spawned the emergence of an eco-friendly trend. Despite the success of industrialized farming, society has begun to worry about the long term impacts of biotechnology due to the potential risks to the population posed by ethanol and high fructose corn syrup. The 2007 documentary film, *King Corn*, challenged this industrialization, while the 2008 documentary *Food, Inc.*, examined the role of these large corporations have on our food supply. Today we are seeing the emergence of small, organic, boutique farms. Concerns over pesticides, genetically modified organisms, and waste have resulted in a new trend in agriculture. Boutique farmers use sustainable methods to cultivate heirloom product varieties. Whether this will become the next “big thing” remains to be seen, but it does provide evidence of the beginning of a new fashion in farming.

The changes in farming technology have yielded cumulative change, where each new invention is an improvement over its predecessor. Cast-iron plows, steel plows, grain reapers, threshing machines, tractors, and hybridization were each improvements that made their forerunners obsolete. The burgeoning return to organic farming is evidence of cumulative change where traditional methods are improved to respond to modern consumer desires.

Discussion

Each of these illustrates how the concepts of fashion apply to products outside the domains of clothing and dress. These examples show the adoption and decline of a particular product; yet, they also illustrate cumulative and contextual change, influenced by a variety of external factors such as popular culture, politics, and technology.

In each case, leaders were instrumental in facilitating adoption and dissemination. In studies of clothing and style, leaders wield influence and impact the adoption of new products or the discarding of old (Craik, 1994; Reilly, 2014). Celebrities’ and politicians’ choice in dog breed has influenced others to adopt, and is representative of the trickle down theory (Simmel, 1904) and the bandwagon effect (Leibenstein, 1950). Cooperative extension agents within the field of farming have long contended that adoption of new techniques in farming have been dependent on what a neighbor is doing (personal communication) and Herzog et al. (2004) argued that dog breed adoption was predicated on what “other people are doing.”

Innovations impact what is available to consumers. Technological advancements provide increased affordability and availability. For example, the development of the cotton gin by Eli Whitney in 1793 increased the procurement of cotton fibers and

resulted in an increased supply of cotton fabrics. Likewise, technology has played a role in cumulative adoption of statistical analyses and farming equipment. Consumers of statistical analyses adopted the most sophisticated analytical methods as each advance in software and statistical theory became available. Users of farming equipment used new advances built prior technology. These changes ushered in new periods of productivity while at the same time changing creating a new idea of what it meant to be modern.

Fashion in clothing is the embrace of the modern and the innovative (Slade 2009; Steele 1998; Wilson 1987). It represents the newest, latest, and most sophisticated and is parallel to shedding the past. Using the most advances analyses, adopting a rescue dog, or adopting sustainable farming practices illustrates this, but what is perhaps most significant and best illustrates the concept of fashion is that as a trend waned the product became unfashionable.

Conclusion

This conceptual paper offers examples of the versatility of *fashion* as a process by applying it to concepts seemingly orthogonal to trends and demonstrates how it can be useful to disciplines beyond clothing design and merchandising. Agricultural colleges often have diverse programs that seem incompatible each other and instructors in these programs are often tasked with finding commonalities. Using the concept of fashion as a framework can link diverse curricula and can be incorporated into such courses such as research methods, family management, community applications, and agricultural methods. This approach can foster critical discussions among students around topics of types of, reasons for, and ability to change.

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