12. French Expansion, American Collapse 1890–1910

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An enduring question in cycle history is why American cycling became so different from European cycling so early. In the United States, bicycle riding seems to have disappeared after "the Golden Age" of the 1890s, while it increased all across Europe during the 20th century. It is sometimes suggested by way of explanation that distances in the United States were simply too great to make cycling practicable, and gasoline was much cheaper in the United States than in Europe (Alvord 2000:26). It is tempting to accept these common-sense arguments, yet as cycle historians are aware, we know so little about the period that we should be cautious before accepting easy explanations.

In the long run—over, say, decades—these two factors might have made a large difference in cycling practices between the two continents. However, a comparison of French and American cycling from 1875 to 1910 reveals that these factors made no real difference in the original divergence, and suggests an answer to the question of why European and American cycling became so different. This paper will advance four arguments in four sections. The first section will show that cycling practices in France and the United States were fundamentally similar from the late 1870s to the early 1890s. The second section will argue that the bicycle craze of the 1890s originated in France, but was much "crazier" in the United States. The third section will outline the major collapse in American cycling, and in the U.S. bicycle industry, from 1899 to 1903 or so, and the adjustment—but continuing increase—of French cycling and bicycle production in the same period. Cultural differences in the United States between elites and workers were much greater than they were in France, and strategies for dealing with workers were different, especially in the use of fashionable products such as bicycles. The last section will demonstrate that the constantly increasing presence of automobiles in the United States sealed the fate of cycling by 1910 by literally driving cyclists off city streets, while the number of French cyclists continued to expand because they had no such worries.

Similarity, 1875–1892

In the early years, the French and American cycling scenes were similar. In this section we will see that the type of rider, the type of riding, the "gendering" of cycling, the industries, bicycle designs, and imitation of English cycling were broadly the same in the two countries. The influence of England varied in national cycling organizations, in importing, and in the rules governing amateurism, but French and American riding were broadly similar into the 1890s.

In the early years, cyclists in both countries came mostly from the professional classes, who were a small proportion of people in each country at this time. Doctors, ministers, lawyers, business owners and executives, and college students were among the earliest riders (*Bicycling World* [*BW*], 7 Feb.1880:98), and in 1890, members of these occupations comprised only 10% of the American population (Spahr 1896:128). One survey of the "average" rider mentioned two attorneys, three doctors, three editors, two reporters, two bookkeepers, two bank clerks, five retailers, three "businessmen," two draftsmen, one company treasurer, one minister, and two "executives" (Kron 1887:Ch.XXXI). Likewise, French riders came from a narrow strata of society, but not the wealthiest: "Nine out of ten [riders] are administrative employés or self-employed, there are even rentiers" (*Sport Vélocipédique* [*SV*], 22 Jun 1882:195). "Self-employed" covered industrialists in the 1860s earning an average of over 12,000 f. a year and artisanal employers earning over 4,000 f. Both groups could purchase a 400 f. bicycle, the artisans with difficulty. Professionals generally earned an income between these two groups (Price 1987: 130). Many rentiers (living off rental income) were considered middle-class, while administrators were definitely not part of the grande bourgeoisie (Price 1987:122–123). These groups made up only 15–20% of the French population towards the end of the nineteenth century (Wright 1995:271).

Elites in both countries influenced what objects were acceptable. Some French historians claim that the bourgeoisie, the French middle classes, closely imitated the aristocracy in this period, as they had for centuries (Price 1987:142; Sorlin 1969:159). Others have pointed out that this imitation was ambivalent, combining this long-standing sense of inferiority with new political power, which led to the desire to develop taste patterns separate from the nobility (Charle 1994:185–187, 195; Steele 1998:171, 187; Tiersten 2001:251–252 n22–25). The new United States elites who were pushing aside "old money" (Klein and Kantor 1976: 212–224) maintained a keen sense of what was currently fashionable, especially in Paris, to allay the insecurity they felt in their new position (Nichols 1904:37, 45, 50; Leach 1993:94–100). The American middle classes imitated the fashions of the wealthy more straightforwardly than the French *moyenne bourgeoisie* did (Matt 2003:6, 15–16, 59, 63).

During this early period (the high-wheel period? – Ed) the elites in both countries, the wealthiest in the United States, and the nobility and grand bourgeoisie (the wealthiest commoners) in France, disdained cycling. One French writer complained in 1883 that cycling had won little favor in "high society" (*SV* 22 Dec 1883:419). *La Vie Parisienne*, an elite weekly magazine, carried spoofs of cyclists in the late 1880s. The first cartoon lampooning a dandified tricyclist appeared in 1885 (*La Vie Parisienne* [*LVP*], 24 Oct 1885:607). In 1888, a two-page spread of cartoons satirized many types of cyclists, none of whom had any "style" (*LVP*, 14 Jul 1888:384–385). During the early 1880s, a few American "society men… rode the… "high wheel' spasmodically for some years," and later "some few again essayed the safety bicycle when it was first invented. These, too, were jeered at by their fellows" (*Scribner's Monthly* [*SM*] Jun 1895:704). And a prominent cyclist pointed out that cyclists were often those who could afford bicycles, but who were "not wealthy enough to keep horses and carriages" (Bates 1884:194, quoted in Dunham 1956:254).

Elite disapproval limited middle-class cycling. In 1889, a writer to the *Revue du Sport Vélocipédique* said that cycling "is not yet admitted by the elegant world, the people of good taste, who have only a disdainful pout" for cyclists (*RdSV* 16 Aug 1889:25). And one French rider reported that in many regions, "the fear of what-will-they-say prevents many people from availing themselves" of a bicycle (*Journal de Machines à Coudre et*

Vélocipèdes [JdeMàCetV], 31 Aug 1889:126). American cyclists constantly claimed that they were of the "best classes" in their communities (*American Bicycling Journal* [*ABJ*] 22 Dec 1877:10; *BW*, 10 Dec 1880:67; *BW*, 11 Nov 1881:2), but these comments sound hollow. A businessman who rode complained in 1880 of ridicule and social pressure not to be "singular." He wanted to know "if respectability demands that I should abandon the wheel" (*BW* 24 Dec 1880:99).

Cultural norms further limited the potential market. Floor-length skirts were effectively mandatory for women at this time (Clinton 1999:72–80, 149; Plante 1997:129). In their first issue, the new editors of *Bicycling World* acknowledged and deplored the "irrational conventionalism" of female dress (*BW*, 15 Nov 1879:12), which made riding so dangerous for women—the skirt would immediately get tangled in the spokes. Some French women stated that modesty, or "the conventions," or the danger of high-wheeled bicycles, or fear of *maman* kept them from riding (*Revue Vélocipédique* [*RV*, 1 Nov 1883:322). Despite this, French women started to ride around 1882 (Baudry de Saunier 1891:225), but in very small numbers. The French cycling press contained scattered references to and images of women riding. Of thirty-one bicycles and tricycles shown in one commercial supplement, only six have riders; three of those riders are female (*RV*, 10 Mar 1883:suppl.). The first bicyclette "constructed especially for women" appeared in 1887 (*RdSV*, 14 Oct 1887: 26), and by 1889 images of women on safety bicycles replaced tricycle imagery. Tricycling also grew slowly among U.S. women (*League of American Wheelmen Bulletin* [*LAWB*] 23 Jul 1885:71; 4 Sep 1885:172). However, when the bicycle for women was introduced, women were often reluctant to "bestride" a bicycle, but usually one ride converted them (*LAWB* 24 Feb 1888:88). Ultimately, the women's bicycle won the day: "ladies' bicycle clubs are being formed in many of the large towns throughout the United States" (*The Wheel and Cycle Trades Review* [*Wh&CTR*] 26 Oct 1888:205).

Most American and French riders bought bicycles to ride them in a leisurely manner in the countryside, not to race (Kron 1887:v). Of 46 American riders who mentioned how they rode, 42 toured, but only eight raced, and almost all who raced also toured; only 18 riders commuted, and only two "mainly" commuted (Kron 1887: Ch. XXXI). When a new editor took over *Sport Vélocipédique* in September 1882, he said, "Races…interest only a limited number of vélocemen" (*SV*, 16 Sep 1882:290–291). He quickly made travel narratives on leisure rides from cyclists a regular feature of the magazine, suggesting widespread leisure cycling.

Ridership grew over the 1880s and early 1890s. Epperson estimates that 10,300 bicycles were sold in the United States in 1885, almost 30,000 in 1890, and over 60,000 in 1892 (2001: 49). French sales and production numbers do not yet exist, but the numbers of clubs do demonstrate growth in the number of cyclists. In 1885 there were 80 clubs in France (*RV* 15 Jan 1885:588). In 1890 there were at least 120 clubs (*RdSV* 17 Jan 1890:292), and probably more, because by May 1891, 271 bicycle clubs existed in France (*L'Industrie Vélocipédique* [*L'IV*] Apr–May 1891: 67). Extrapolating backward from the first government registrations in 1893, there were probably close to 200,000 riders in 1892.

Both national industries grew in response to the increase in ridership. As bicycle historians know, "Colonel" Albert Pope was the American industry leader, with 300 dealers in his retail network by 1882 (*BW* 5 May 1882:313). By 1885 there were at least five manufacturers in addition to Pope (*BW*, 20 Feb 85:263–270), plus importers. In the late 1880s, a number of new firms entered the U.S. industry and started to prosper (*Wh&CTR* 21 Feb 1890:518; Hounshell 1984:202). Adolphe Clément was Pope's French equivalent. He opened his own factory in 1878 in Paris, and opened a riding school the next year. By 1881 he, too, had started to develop a retail network around the country (*Veloce-Sport* [*VS*], 7 Jan 1892:14+; Clément 1897:10). Six other French manufacturers had exhibited at the Exposition Universelle in Paris in 1878 (Baudry de Saunier 1891:169), and by 1880 more appeared (*SV*, 4 Mar 1880; 29 April 1880:23). By the end of 1889 several other large manufacturers had entered the market, such as the Peugeot brothers (Sedillot 1960:33–34).

By 1890, the American "Big Three" were composed of Pope, Gormully and Jeffery, and Overman (*Wh&CTR* 21 Feb 1890:518), and the French "Big Four" consisted of Clément, Rochet, the Peugeot brothers, and the Société Parisienne (Baudry de Saunier 1891:282). However, many French producers were framebuilders who bought parts to construct whole bicycles, or assemblers (*constructeurs*) who bought everything from suppliers (Baudry de Saunier 1891:198). English parts found their way to very small *constructeurs* (Baudry de Saunier 1891:198–199). The city of Saint-Étienne in southern France, which had long produced firearms, became a major production center of parts which supplied assemblers (Vant 1993:7, 13–14). The French sewing machine industry also moved into bicycles around 1890.[1] Similar patterns obtained in the United States. Pope had started with Weed Sewing Machine, and firearm manufacturers also moved into bicycle production (*Wh&CTR* 21 Feb 1890:518; Hounshell 1984: 202). It also seems true that there were many small U.S. "producers" who were framebuilders or assemblers, but indications are scant.

Learning to ride a bicycle was not easy, so retailers opened riding schools. Pope opened one in 1878 at his own retail store (*ABJ*, 11 May 1878: 14), and by 1880 *Bicycling World* listed six retailers with riding schools (*BW*, 20 Mar 1880: 157). Clément also opened a riding school (*manège*), next door to his factory (Clément 1897:10), and soon others did. Secondhand sales started very early, because riders in both countries developed a tradition of changing bicycles annually. A rider bought a Columbia "second-handed" sometime in 1879 (Pope Mfg. Co., Oct 1880:23), and someone published an advertisement for a used bicycle at the end of the year (*BW*, 27 Dec 1879:62). Advertisements for used bicycles soon appeared regularly in *Bicycling World*; by April a dealer in New York City bought used bicycles to resell (*BW*, 3 Apr 1880). In late 1881, the writer of the column "Véloces et Fabricants" suggested that November was a good time to ponder which bicycle to choose for the coming season (*SV*, 12 Nov 1881:219). Advertisements for used bicycles appeared in very early issues of *Sport Vélocipédique* (18 Mar 1880:1; 29 Apr 1880:22).

Finally, both French and American riders—and industries—imitated English traditions through the early 1890s. The many new designs for highwheelers appearing in England (Ritchie 1975: Ch. 6) soon appeared in America and France thanks to importers (*BW* 25 Mar 1881:305), including the "Kangaroo," the "Xtraordinary," and the American-made "Star" (Pressey v. Smith 1888; Seray 1988: 114–115, 120–123). When the rear-driven safety appeared, both countries' manufacturers imported, then imitated, these designs (Pope Mfg. Co. 1888; RV 20 Sep 1886:131). And the cycling press in both countries always followed "the Stanley," the trade show and design exhibit that the Stanley Bicycle Club sponsored annually in London (e.g., *Wh&CTR* 15 Feb 1889:461; *RdSV* 15 Feb 1889:316).

Likewise, both countries' riders copied the British organizationally, but rather loosely, and this proved to be one of the early differences between French and American cycling. The British formed national organizations in 1878, one for leisure riding and one for racing (Kron 1887:647; Lightwood 1928: 47–50). American riders formed the League of American Wheelmen in 1880 (*BW* 12 Jun 1880: 254), elected Charles Pratt, the editor of *Bicycling World*, its first president, and made that magazine the League's official publication (*BW*, 7 Aug 1880: 332). The industry's leading manufacturer, Albert Pope, was one of the organizers (*Harper's Weekly* [HW], 9 June 1883:363). The Union Vélocipédique de France (U.V.F.) was formed in early January, 1881. Devillers, editor of *Sport Vélocipédique*, was elected president, while the magazine was made the "official organ" of the organization (*SV*, 20 Jan 1881:13; 17 Feb 1881:25; 3 Mar 1881:33). The first name on the list of members was Adolphe Clément (*SV*, 20 Aug 1881: 162), suggesting yet another parallel to Pope. The L.A.W. formed a board in 1882 to oversee racing (*BW*, 31 Mar 82:244), so unlike the English, one national organization simultaneously supported tourism and governed racing. However, the U.V.F. was so racing-obsessed throughout the 1880s that many French riders tried and failed to found an equivalent to the English Cyclists' Touring Club (*RV*, 28 May 1885:765; *SV*, 29 Oct 1886:355; *RdSV*, 4 May 1888:163). A group of riders in Paris

finally formed the Touring-Club de France (T.C.F.) in 1890 to promote "tourism in all its forms, but most especially for bicycle tourism" (*Revue Mensuelle du Touring-Club de France* [*RMduTCF*], Jan 1891:1, original bold). The T.C.F. became extremely successful, as we will see below.

Another difference was the import situation. American tariffs on bicycle imports were at 35% (*ABJ* 2 Feb 1878:6), while French-English treaties in the 1860s had lowered tariffs across the Channel to nearly none at all for many goods (Kemp 1971: 175–176). Furthermore, shipping costs from England to the United States were much higher than they were to France, for obvious geographical reasons. Into the 1890s there were far more English bicycle companies operating in France than French companies, while there were more manufacturers than importers in the United States (*Wh&CTR* 4 Sep 1891: 42).

The final difference between the two countries was the rule defining amateurism, which still involved England. The L.A.W. imitated strict English rules around amateurism (*BW*, 16 Oct 1880: 395–397) as a condition of membership, whether members raced or not, though people who worked for bicycle companies retained amateur status (*BW*, 4 Sep 1880:359–360). Amateurs could not race against professionals, take cash earnings, or teach cycling for a living. The French, however, adopted a looser amateur rule: "An amateur is someone who does not make a profession of racing" [original italics]. This meant that racers who won cash prizes, raced with professionals, or taught cycling were still amateurs; only those making a living from racing were not (*SV*, 24 Jun 1880:51). Riders in northern France wanted to race in England (*SV*, 16 Sep 1880:99), so for years the U.V.F. went back and forth between a loose, French definition of amateur and a restrictive English one (*SV*, 17 Feb 1881:25; 14 Sep 1881:182; 24 Aug 1882:266). Americans maintained their tight definition, but racers violated it with impunity by becoming "makers' amateurs" who were secretly funded by manufacturers for marketing purposes (*BW* 3 Jun 1884:93; 27 Mar 1885:365).

The Bicycle Fashion, 1893–1899

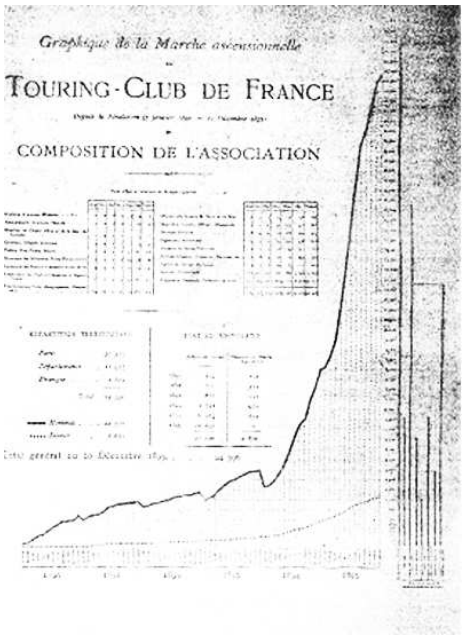
Cycle historians have demonstrated convincingly that the 1890s bicycle fad was international in scope (Dodge 1996:115–116; Dunham 1956:447; Ritchie 1975:160–163). However, cycle histories have been rather hazy on the exact mechanics and timing of the vogue. In this section we will see that the expansion of cycling in the 1890s was driven by fashion among elites, specifically French elites. After more than a decade of disdain for cycling, the French nobility, with its long-standing reputation for good taste and fashionability, took to cycling with enthusiasm in 1893. Elites in other countries soon followed suit, especially in the United States. Middle classes in both countries soon followed, and industries responded. However, Americans were even more enthusiastic than the French, and drove global bicycle prices down.

The fashion started, interestingly enough, with a publicity stunt. In September 1891, *Le Petit Journal*, France's highest-circulation, general-interest daily newspaper, sponsored a race from Paris to Brest, at the tip of the Brittany peninsula, and back (*Le Petit Journal* [*LPJ*], 11 Jun 1891:1). Pierre Giffard, the newspaper's editor, loved cycling, and wanted to increase it in France (*LPJ*, 3 Sep 1891:1). Charles Terront won in just under three days (Baudry de Saunier et al. 1935:177). Naturally, *Le Petit Journal* covered the race before, during, and after it took place. This coverage provided cycling with much positive publicity beyond the newspaper's readership (Durry 1976:33). There were four major road races that year in France, including the Bordeaux–Paris, the Paris–Brest–Paris, the Paris–Dieppe, and a military competition. However, French bicycle historians date the popularity of cycling in France to the dramatic Paris–Brest–Paris race (Baudry de Saunier et al. 1935:178; Durry 1976:33; Seray 1988:156–158).

Through the Paris–Brest–Paris publicity, it seems that the nobility finally noticed how bicycles had been transformed. In another cartoon in *La Vie Parisienne* in 1891, before the race, the magazine acidly ridiculed cyclists again by drawing them as chinless, with long, pointed noses. Most of them are on ordinaries (*LVP*, 22 Aug 1891:472–473),

which were still occasionally used. However, in 1892, the Duchess of Morny had a bicycle in her stable, next to her thoroughbreds (*VS*, 14 Jul 1892: 611), and her husband the Duke was a member of a *manège* on the Champs Elysées, along with other nobles (*RMduTCF*, Jul 1892:139). In April of 1893, *Véloce-Sport* noted that one Sunday ride in one of the Bois included a variety of princes, viscounts, and marquises, plus theater people (*VS* 27 Apr 1893:373). *La Vie Parisienne* ran a series of illustrations and articles in 1893 suggesting bicycle use was now normal among the elite (*LVP*, 11 Mar 1893:132–133; 20 May 1893:275; 22 Jul 1893:408; 19 Aug 1893:458–459; 16 Sep 1893:516–517). By September *The New York Times* had noticed aristocrats a-wheel in indoor cycling academies (*New York Times* [*NYT*] 25 Sep 1893:9). The nobles of Belgium had taken up the sport by April (*VS*, 4 Mai 1893:422). In November, *Véloce-Sport* published a photo of Russian, Greek, Danish, and other princes, including the Tsarevitch, the soon-to-be Tsar Nicholas II, on bicycles (*VS* 16 Nov 1893:1002).

No such change occurred in America in 1892 or 1893. The "society" world of the elite continued to sneer at cyclists (*Wh&CTR* 5 Oct 1894:13). However, that year wealthy Americans visiting Paris saw the new bicycle fashion, and the next year started cycling back home (*Wh&CTR* 17 Oct 1894:v; *SM* Jun 1895:705). *The Wheel* and the "society" pages of *The New York Times* both noted frequently over 1894 that increasing numbers of the American elite were riding bicycles (*Wh&CTR* 13 Apr 1894:26; 20 Jul 1894:34; 10 Aug 1894:24; *NYT* 18 Jun 1894:2; 15 Sep 1894:4, 16; 10 Dec 1894:7). That summer elites in Newport and other resorts rode avidly, went home to their various cities throughout the country that fall, and so diffused the bicycle fashion (*Wh&CTR* 26 Oct 1894:28; *SM* June 1895:706).



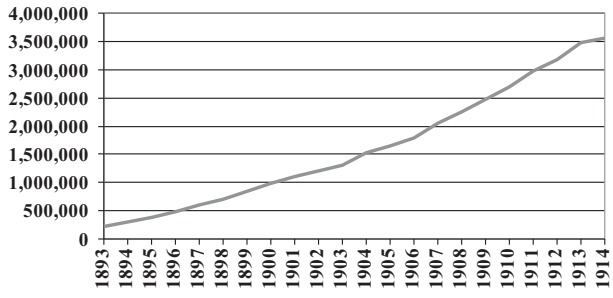
Left: Fig. 1. Touring-Club de France Membership, 1890–1895.

In that same year, 1894, the French middle classes followed the nobility. In February, an industry journal noted that bicycle orders jumped shortly after the first industry show, the Salon du Cycle, which nobles had visited (*JdeMàCetV* 15 Feb 1894: 17). Membership in the Touring-Club de France had gradually increased since 1890, but the increase accelerated suddenly in April 1894, as the accompanying chart shows.

T.C.F. membership increased ten times between 1894 and 1898 (*RMduTCF* Nov 1894:237; Nov 1898:421). However, ownership nationally grew more gradually than upper-middle-class riding did. Official statistics show that the number of bicycle owners throughout France grew by 34% from 1893 to 1894, and grew an average of 26% every year for the next three years (*Annuaire Statistique de la France* 1914–1915:55*). That is, ownership doubled in three years. Bicycle sales naturally accelerated to keep up with increased demand (*VS* 30 Mar 1894:43; *JdMàCetV* 28 Feb 1895:221).

Bicycle use jumped just as markedly in the United States in the following year. In April 1895, *The Wheel* said that bicycling had become "a

Figure 2: Number of Registered Bicycles
France, 1893-1914



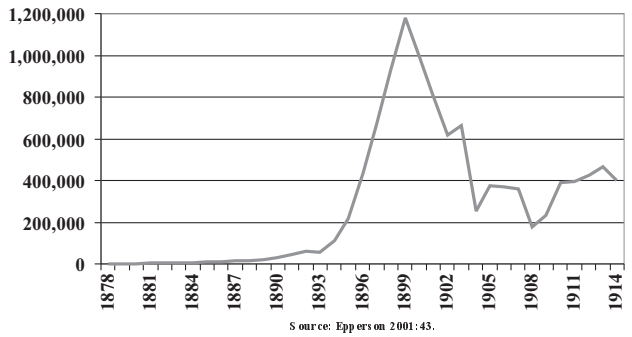
Source: *Annuaire Statistique de la France*, 1914-1915:55*.
Note: 1893-1898 adjusted for non compliance. Please see Appendix.

veritable craze" (*Wh&CTR* 12 Apr 1895:21). In July, *Harper's Weekly* noticed, "The number of riders has doubled in the past six months, and is still increasing" (*HW* 27 Jul 1895:716). The same magazine mentioned in September "the immense rage for bicycling" that summer (*HW* 28 Sep 1895:913). Middle-class expansion as a fashion effect for France rests on the circumstantial evidence presented above. In the United States, contemporaries explicitly mentioned middle-class emulation of elites. Writers for *Harper's Weekly* explained the sudden increase in bicycle use in terms of imitation of elites (*HW* 11 Apr 1896:359; 17 Aug 1895: 769), as did the editors of *The Wheel* (*Wh&CTR* 3 May 95:19).

Although riding in France grew quickly, American cycling grew explosively. The accompanying chart of U.S. bicycle sales shows dramatic growth in U.S. bicycle production.

Taking into account export figures, the U.S. market doubled from 1894 to 1895, the first year of the boom; it almost doubled again from 1895 to 1896; it grew by 40% from 1896 to 1897; and the national market increased by 30% from 1897 to 1898 (Epperson 2001:49). Allowing for the one-year lag (that is, if we compare 1893–1894 in France to 1894–1895 in the United States, and so on), American cycling grew three times faster than French cycling did for the first two years of the craze, and then settled down to only slightly faster growth in the next three years. Given the expansion of the first two years, however, U.S. ridership became far larger, proportional to population, than French ridership.

Figure 3: Estimated Annual U.S. Bicycle Production, 1878-1914



Source: Epperson 2001:43.

Export markets became important for both national industries in this period. As the table below shows, American exports kept growing over the 1890s (Epperson 2001:49), and imports probably declined during the bicycle craze. In contrast, French exports remained more or less flat as a percentage of production, and constituted a significant share of production throughout the period. (Ten percent annual replacement is a conservative estimate.)

Considering, over the 1890s, that French exports remained a relatively stable proportion of output, that imports decreased as a share of the French domestic market, and that Americans exported increasing shares of output over the duration of the boom, it is likely that American companies overproduced during the craze, and used exports as a safety valve.

Demand was so intense during the craze that it was easy for producers to misperceive it and to overshoot it. However, overproduction was a problem throughout many industries in the United States economy from the 1870s through the 1890s, becoming intense in this latter decade (Becker 1973:466), so it is not surprising that this occurred

Table 12.1. French Bicycle Exports and Imports and U.S. Bicycle Exports

	France	United States		
	Percent exported	Percent exported	Percent Imported	
Year	(no replacement)	(10% replacement)		% exported
1894	42	29	58	-
1895	38	25	54	-
1896	33	23	32	5
1897	40	29	28	13
1898	45	30	32	18
1899	N/A	N/A	N/A	23

* Estimated from *JdMàCetV* 15 Apr 1895:243, *Cycle et Automobile Industriels* [*CetAI*] 5 Dec 1897:1, 5 Mar 1899:6, and *Annuaire Statistique de la France* 1914-1915:55* (the asterisk is part of the pagination system for the *Annuaire*, not marking a footnote). Please contact the author for a full discussion of sources and estimation procedures.

in the bicycle industry. As early as mid-1897, a cycling magazine claimed that the industry was overproducing (*Wh&CTR* 25 Jun 1897:40). Later that year, the same magazine worried that a tremendous expansion in number of parts' manufacturers over 1897 was leading to overproduction (*Wh&CTR* 24 Dec 1897:27). And in 1898, a prominent New York City retailer claimed that there were too many makers, and that overproduction resulted (*Cycle Age & Trade Review* [*CA&TR*] 23 Jun 1898:151).

Overproduction—producing more than consumers could buy—probably resulted from the tremendous number of entries into the U.S. bicycle industry in these years. There were many firms "who 'jumped' into the business… who came equipped only with hope and nerve" (*Wh&CTR*, 11 Sep 1896:25). Another source confirms that "newcomers… mushroomed in the business" (Smith 1972:34). In 1900 a trade journal reminded its readers of many bicycle company foundings during the craze (*Sporting Goods Dealer* [*SGD*] Jul 1900:16).

The increase in entries made the U.S. industry very volatile. Many firms closed in 1893 (*BW&LAWB*, 13 Oct 1893:85), probably due to the national depression that started that year (Davis et al. 1972:505; Bruchey 1990:338). The failure rate in 1896 in the bicycle industry was the second highest in any industry in the country (*Wh&CTR*, 11 Jun 1897:27). The year 1898 was even more volatile, with over 300 entries, but over 500 exits.[2] (Dowell and Swaminathan 2000:427). The first year of the U.S. boom, 1895, turned out to the year of greatest profitability (Dewing 1914:250), but the years 1896 and 1898 saw profitability drop to minimal levels. As George Pope, Albert's cousin, put it, "Competition was of the cut-throat order" (U.S. Congress 1901:689).

Overpopulation in the American bicycle industry was probably not due to marginal manufacturers entering the bicycle industry during the depression, because entries into the bicycle market in 1898, after the depression had ended, were still high (Dowell and Swaminathan 2000: 427). Instead, there was a cultural value placed on business success, or "making it"; businessmen received praise for starting entirely new ventures, and multiple bankruptcies per entrepreneur before actual success was the norm. Local elites were very business-friendly, and this translated into policies such as encouragement of resource use, easy incorporation, and carefully protected property rights (Galambos and Pratt 1988:23).

The French industry did not seem nearly so volatile. Direct statistical comparison to the U.S. industry is not yet possible, but the French cycling press, especially industry journals, never complained about problematic, undercapitalized, or inexperienced entrants, maker-dealer squabbles, or overproduction, as such journals did in the United States. In fact, Paul de Vivie, the famous "Vélocio," noticed in *Le Cycliste* that Americans were increasing their exports in 1897, and he agreed that it was due to overproduction. He asserted that French industries related supply to demand better than American industries did (*Le Cycliste* [*LC*] Jul 1897: 151). The state fostered competition throughout most of the nineteenth century (Price 1981:161), but reversed direction late in the century and allowed entrepreneurs to collude to reduce competition (Caron 1979:43). The tradition of making a fortune, then retiring to be a *rentier* was still prestigious in France (Beltran and Griset 1994: 101), and the actual pool of potential entrepreneurs was small, and growing slowly (Levy-Léboyer 1976). New business foundings were therefore much more frequent in the United States than in France.

Severe price competition characterized many industries during the depression of the 1890s (Lamoreaux 1985:11, 87). The demand pressures of the craze and the tendency toward excessive new firm foundings and overproduction simply intensified this price competition. Prices dropped in Europe, too, as production expanded, but imports from the United States reduced them further. Internationally, prices fell by more than half over the 1890s. In early 1893, French bicycles ranged from 385 f. to 425 f. ($77 to $85; *Le Petit Journal* [*LPJ*] 12 May 1893:4, 23 May 1893:4). In 1894, the first year of the French vélocipédomanie, bicycles sold from 290 to 375 f. ($58 to $75) early in the season (*LPJ* 27 Mar 1894:4; 2 Apr 1894:3, 3 Apr 1894:4). In the United States in 1894, Pope sold his "Columbia" bicycles at $125 and $150, and sold the

racer for $160 (Pope Mfg. Co. 1894). In 1895, however, he sold all Columbia bicycles for $100 (Pope Mfg. Co. 1895:8). Prices for low-end bicycles fell only from $55.95 in 1894 to $48.90 in 1895 (Sears Catalog 1894, 1895). The Crescent, a mid-market bicycle, sold for $75 in both 1894 and 1895 (*HW* 21 Apr 1894:383; 18 May 1895:477). By the fall of 1899, most Columbia models sold at $50 (Pope Mfg. Co. 1899), and mid-level prices ranged from $12.50 to $40 (*HW* Apr 1899:441). Sears sold its basic model at $13.95 (Sears 1899). In France, the bottom of the market in 1899 seemed to be 90 f. ($18; *Cycle et Automombile Industriels* [*CetAI*] 13 Aug 1899:2), while 150 f. ($25) was a standard middle-level price (*LC* 31 Dec 1899; *CetAI* 24 Sep 1899:4). Second-hand bicycles in each country were even cheaper and much more numerous. French prices fell more slowly than American prices did, which suggests that competitive pressures were higher on the western side of the Atlantic.

Workers had always comprised only a small proportion of cyclists. However, from the mid-1890s lower-middle-class and well-to-do workers, probably skilled ones, entered both markets in large numbers. By 1897 the president of the U.V.F. requested that the government lower the tax on bicycles, because "[t]oday the bicycle has become for the laboring class the most economic means of locomotion" (*JdeMàCetV*, 30 Nov 1897:513). Club membership lists showed that lower-middle-class people and skilled workers, especially artisans, were buying bicycle in large numbers in the late 1890s (Weber 1986:205). In the United States, the depression of 1893 ended in late 1897, so that urban unemployment rates of over 20% were finally reduced (Bruchey 1990:362). Already in 1895, increasing numbers of American workers were buying old ordinaries or second-hand safeties on installment (*Wh&CTR* 1 Nov 95:46). By 1899 workers started to buy bicycles in large numbers (*CA&TR* 16 Mar 1899:598). In both countries, then, elite-driven fashionability had sparked an industrial boom that in turn drove the price down enough for "unfashionable" people to afford it.

Overall, then, the golden age of the bicycle was a fashion-driven craze. It originated in the French elite, the nobility and bourgeoisie, in 1892 and 1893, and spread to the French middle classes and American elites in 1894, diffusing to American middle-class people in 1895. This massive upsurge of interest, this "craze," as it was called then, was crazier in the United States than in France. The national depression, along with American business culture leading to overproduction, forced international bicycle prices drastically downward, opening cycling to workers and artisans in both countries.

Divergence, 1899–1903

The introduction of the automobile into this changed situation was the catalyst for the divergence of bicycle use between America and France. As Hodges (1994) has argued, the automobile did not, by itself, end the bicycle craze. Instead, it was the middle-class response to the introduction of the automobile that created a difference between American and European use. Specifically, relations between people in different social classes were hostile in both countrires, but specific conditions were more divisive in the United States than in France, and middle-class strategies to deal with their "inferiors" also differed. As a result, Americans stopped riding bicycles for leisure relatively suddenly, while French leisure riding continued.

The basic principles of the internal combustion engine were discovered in the 1880s. Automobiles had improved enough by the middle of the 1890s that magazines and newspapers were sponsoring inter-city road races for automobiles, as Pierre Giffard, and others, had done for bicycles in 1891 (*VS*, 7 Mar 1895:165; *LC*, Sep 1896:205; *RMduTCF*, Nov 1896:403). There were, in fact, numerous intercity automobile races in France (Bardou 1982 [1977]:16–17). American periodicals also sponsored inter-city races in the 1890s (Flink 1970:23; Flink 1988:30). Clearly, automobile performance was improving, but not yet enough to be commercially viable.

This changed in late 1897. Although autos continued to have technical problems for years, automobilisme as an aristocratic fad in Paris started late in 1897 (Weber 1986:205–206). *La Vie Parisienne*, arbiter of all things fashionably male, satirized drivers and passengers of automobiles in

the fall of 1897 (*LVP*, 4 Sep 1897:508–509). By the next year, "Paris had… entered a feverish automobile boom" (Laux 1976:40). Even the *New York Times* noticed the Paris "craze" for automobiles (*NYT*, 4 Jul 1898:7). As late as June, 1899, men at elite U.S. summer resorts still bicycled, but women had stopped (*NYT* 4 Jun 1899:16). The next month, however, the *Times* reported, "Rich Americans returning from Paris, and who have become enamored of the automobile and chauffeur in France, are introducing both vehicles at Newport" (*NYT* 11 Jul 1899:7). A month later, in August, the paper reported, "the automobile craze, like everything new at Newport, dominates everything else" (*NYT* 6 Aug 1899:13). After years of sporadic coverage of automobiles, *Harper's Weekly*, that bastion of middle-class American reading, suddenly published a spate of articles on spreading automobile use in July and August 1899 (*HW*, 1 Jul 1899: 654–655; 22 Jul 1899:730–732; 19 Aug 1899: 825). Thus, the automotive fad worked the same way the bicycle fad did—it started in Paris and spread a little more than a year later to the U.S.

The new fashion reduced and probably ended elite cycling. French elites sold off their bicycles at auction throughout 1899 (Seray 1988:167), and likewise U.S. elites stopped riding in favor of driving (Smith 1972:241–242). A writer in the *T.C.F. Revue Mensuelle* said in 1902, "During these last three years, sovereign fashion decreed that the practice of the bicycle disqualified a chic man. It became bad form to show oneself in the Bois de Boulogne on a bicycle" (*RMduTCF*, Apr 1902: 153). And *Cycle Age* noticed in 1900, "Bicycles are not used nearly so much as formerly by the moneyed class of people" in the United States (*CA&TR*, 4 Jan 1900: 332). Certainly the automobile now had the same function as bicycles had had in the 1890s. As late as 1905, a U.S. industry journal noted that "fully ninety per cent. of the automobiles at present in use, outside of commercial vehicles, are used for pleasure driving only" (*Cycle and Automobile Trade Journal* [*C&ATJ*], May 1905:74–75). McShane has noted that much of this "leisure" use was actually display or conspicuous consumption (McShane 1994:127–128). Likewise, except for medical doctors, most French drivers primarily used their automobiles in the early years for leisure driving and making promenades (Studeny 1995:306–309).

Because of press coverage, and probably through social networks, middle-class people in both countries were quite aware of the elites' shift from bicycles to automobiles. They were also aware of bicycle use at the other end of the social scale. By 1900 working-class riding had increased. By 1897, a French industry journal had noted, sales of used bicycles at 50–100 f. made the machine "for the laboring class the most economic means of locomotion" (*JdMàCetV* Nov 1897:513). Employés and artisans started to form bicycle clubs in France in the late 1890s (Weber 1986:205), and "by the turn of the century, it was not uncommon to see artisans, clerks, and shop assistants out for an evening or a Sunday ride" (Thompson 1997:160). This trend only increased in France in the next few years (*BW* 7 Oct 1905:26). Likewise, contemporaries repeatedly mentioned the increasing "commonness" of American cycling (*BW* 7 Mar 1901:643; 25 Dec 1902:382). In 1900, *Cycle Age* reported that "the bicycle…is most extensively used by the working classes—laboring men in factories, clerks in city offices, carpenters, masons, and persons in similar vocations" (*CA&TR*, 1 Feb 1900:477). *The New York Times* also noticed that the bicycle was now "chiefly used as an article of utility, to get clerks and workmen to and from their business" (*NYT* 13 Sep 1900:6). One wealthy man said, "The bicycle has become so common now, you know; all the clerks and mechanics and errand boys ride them" (*BW* 26 Mar 1904:737). The working-class character of cycling in the United States after 1900 was repeatedly mentioned at the time (*BW* 28 Mar 1901:727; 27 May 1905:225; *City Engineer* [Minneapolis] 1904:461).

In both countries, therefore, elites fled bicycles once automobiles were minimally drivable. In both, workers started to ride bicycles in large numbers when they could afford them, specifically, when the competitive pressures of the boom lowered prices enough. The question, then, is how the French and American middle classes responded to the class-based trends in bicycle use and disuse of their respective countries.

In the United States, the middle classes—professionals, higher-level clerks, shop owners, and middle managers—simply stopped leisure cycling. In 1898, membership in the League of American Wheelmen surpassed 100,000 (Mason 1957:47. By 1902 membership had fallen by over ninety percent, to around 6,000 (*BW* 23 Oct 1902:79, 81). The League manipulated bicycle racing in the late 1890s, and many at the time attributed the membership collapse to this involvement in racing politics (Smith 1972:151–155, 242). Yet the League's membership collapse was part of a much broader trend. One industry magazine noticed as early as 1898 that "cycling is falling into disuse as a pastime among the well-to-do people of the eastern states" (*CA&TR* 8 Sep 1898:527). In 1900, the *New York Times* observed, "Here in New York it has been evident for sometime that the 'craze' was over" and it noticed a "marked decline in the use of the wheel" in Washington, D.C. (*NYT* 13 Sep 1900:6). A year later, *Bicycling World* noted that pleasure riding had stopped almost completely around the country, and observed this once again in 1902 (*BW*The bi-monthly *Journal des Machines à Coudre et Vélocipèdes* (*Sewing Machine and Bicycle Journal*), an industry magazine, was one of my best sources on the French bicycle industry. It is available on microfilm at the Bibliothèque Nationale de France. As of fall 2001, it was mis-catalogued, and required special paper paging after my initial failed computer paging. If you want to read it, be

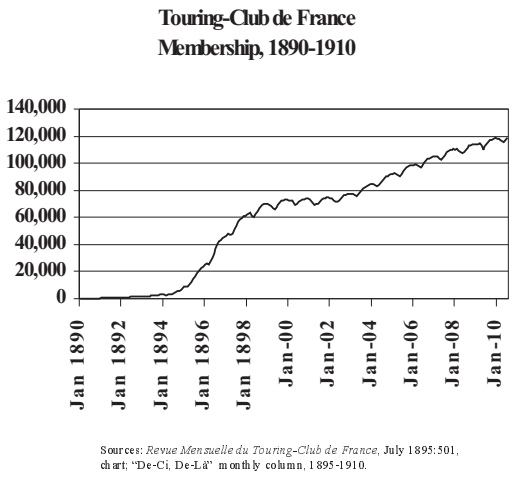


Fig. 4. Touring Club de France membership, 1890–1910.

persistent. 29 Aug 1901:441; 11 Sep 1902:604). The seasonal repair shops and riding schools at the entrance to Forest Park in St. Louis, prosperous through the craze, did not appear in the 1901 season (*SGD* July 1901:13). The bicycle rental concession at Belle Isle Park in Detroit earned $1,200 in revenue in 1898, but took in one-tenth of that, $126.50, in 1902, and closed a year later (City of Detroit 1898–1904). *Cycle Age* reported that in Texas, "pleasure riding is practically a thing of the past" (*CA&TR*, 25 Apr 1900:427). National magazines, which were usually oriented toward a middle-class audience, simply stopped running articles on cycling—even *Outing*, a leisure magazine about the outdoors, stopped publishing cycling articles after 1902. By 1904, the city of Minneapolis reported, "Bicycling in Minneapolis has ceased to be counted as one of the pastimes…Many of the outlying bicycle paths… have grown up with weeds" (*City Engineer* [Minneapolis] 1904:461). In the space of a few years, Americans simply quit riding bicycles for fun.

Some evidence seems to suggest that a drop in use occurred in France. *Le Cycliste* reported in 1900 that there were fewer tourist cyclists than there used to be (*LC* 31 Dec 1900:237). An industry journal claimed that "cyclotourists" were giving up riding (*JdMàCetV* 28 Feb 1901:81). And even the president of the TCF, Ballif, said in 1905 that young people were giving up the bicycle (*RMduTCF* Dec 1905:531). Yet most evidence shows that leisure bicycle riding continued among the French middle-classes. From 1899 to 1903, while U.S. leisure riding was vanishing, the membership of the TCF merely plateaued, and then started increasing again, as the chart below demonstrates.

As a window into the French upper-middle-classes, the plateau in T.C.F. membership from 1899 to 1903 suggests some sort of adjustment, but not a wholesale exodus. Had the latter happened, the membership of an organization still so heavily devoted to cycling would have seen a sharp drop in numbers. The government's bicycle registry would also have reflected such a collapse in use. However, the number of bicycles registered in France increased every single year from 1893 to 1914, and increased by more than 100,000 bicycles per year

after 1903 (*Annuaire Statistique de la France* 1914–1915:55*). Perhaps the wealthiest, most fashionable members were now touring by car, not by bicycle, and the T.C.F. stopped gaining middle-class members for a few years. Whatever the adjustment was, it did not dramatically affect leisure cycling in France from 1900 to 1903, but only mildly influenced it.

The collapse in U.S. leisure riding led to an industry crash. As one *Wall Street Journal* reporter noted, "With the disappearance of the machine for pleasurable purposes, the [bicycle] industry shrunk to an insignificant part of its earlier proportions" (*Wall Street Journal* [*WSJ*] 2 Mar 1907:1). The reporter also provided statistics about the crash.

The French bicycle industry also suffered, but nothing like the American industry did. The number of American bicycles imported into France doubled from 1897 to 1899 (*CetAI*, 20 Aug 1899: 14). It seems that increasing U.S. exports combined the loss of fashionability to create a recession in the French industry from 1899 to 1902, just at the time that the U.S. industry was crashing.[3] In 1898, there were 363 manufacturers (*fabricants*) in the Paris basin, and 480 manufacturers throughout the provinces. However, a year later the number of Parisian producers dropped 20 percent, to 288, while the number of departmental manufacturers had risen very slightly to 488 (Thévin and Houry 1898, 1899). For the next three years, trade journals lamented the state of the industry (*JdeMàCetV*, 15 Dec 1899:545; *CetAI*, 27 Jan 1901:2–3). The bicycle industry's depression finally ended in 1902 (*CetAI*, 11 May 1902:1).

Why did the French and U.S. middle-classes respond so differently to similar trends among elites and workers? Automobile consumption, either as purchase or as use, could not possibly have replaced bicycling in either country, because there were not enough automobiles produced to replace bicycles among middle-class riders. In the United States, despite the loss of at least one million bicycle riders by 1903, and probably many more riders, only 11,000 autos were produced that year. Sales did not even reach 100,000 units until 1909 (Davis et al. 1972:203). The French government started taxing and registering automobiles in 1899, and automobiles could not have replaced bicycles on a one-to-one basis there, either. That year, only 2,000 automobiles were registered. By 1903, only 13,000 were (*Annuaire Statistique* 1914–1915: 55*).

A bicycle retailer of the time summed up the two central elements in the dynamics of the U.S. craze:

> The wealthy like what the poor cannot afford, so the new sport becomes popular and the poor ape the wealthy, so the sport spreads. When it gets common the smart set leave it and the medium closs [sic] do the same, till, as now, the bicycle does not occupy the position in our daily life that it merits merely as a conveyance. Of course its utility would be strengthened many fold by good streets and roads, but in this sparsely settled country, with such fine railroad systems, Utopean [sic] roads are strictly of the future. (*BW* 13 Sep 1900: 465).

Although the retailer was discussing only the United States, as we will see, this quotation contains by implication the main reasons for the divergence between the two national markets: the different nature of the two national class systems causing the divergence, and the different systems of infrastructure—rural roads and urban trolleys—playing a secondary role.

Table 12.2. Five-year decrease in bicycle and tricycle industry

		1905	% decrease
Establishments	312	101	67.6
Capital	$29,783,659	$5,883,458	80.2
Wages*	$8,189,817	$1,917,403	75.9
Cost of materials	$16,792,051	$2,628,146	84.3
Value of products**	$31,915,908	$5,153,240	83.9

Source: *Wall Street Journal*, 2 Mar 1907:1

*Note: In the original source, wages for 1900 were listed as almost two million, for 1905 as eight million; this made no sense in the context of all the other trends, so I reversed them.

**Note: The "value of products" is comparable because retail prices had more or less bottomed out by 1900.

There were two basic differences in the class systems that seem to have affected the two bicycle markets. First, middle-class Americans imitated "society" Americans more slavishly than the French middle classes did the French nobles; bicycle sales rates strongly suggest more of a "mania" in the United States than in France. Many thought that the end of American leisure cycling was just as fashion-driven as its beginning (*NYT* 31 Mar 1902:8; *BW* 21 1903:196; 24 Feb 1906:491). Certainly the desire for automobile ownership had seized the American middle classes quickly. By 1904, consumers were "satisfying… cravings for an 'auto' by patronizing street cars" (*City Engineer* [Minneapolis] 1904:461). Later in the decade, when auto prices fell, many middle-class people reduced their savings, took mortgages, and had fewer children in order to afford automobiles (McShane 1994: 133–134). French middle-class people were also interested in automobiles (Laux 1992:10), but not as much as in the United States.

The ethnic configuration of workers in France and in the United States was the other main factor. Despite compulsory French education, France's regional cultures remained strong in the late nineteenth century; many peasants still spoke Breton, Languedoc, and Occitan, not French (Weber 1976:Ch. 18). Although people of both sexes migrated all around France (Weber 1976: Ch. 16), most migration was local: in 1906, 79.9% of people lived in their *département* of birth. The regions with net immigration tended to be the industrializing regions (Ogden and White 1989: 14–15, 17). Also, by 1911, only 3.3% of the population was of foreign origin. Adjacent countries with similar cultures provided 83% of immigrants in 1911, including Belgium, Italy, Germany, and Spain, and these immigrants often intermarried with locals (*Cambridge Economic History* VII 1978:300–301, 321). Therefore, many immigrants' children considered themselves French, so the proportion of the population that identified with a foreign culture was small. Finally, the main religious issue in France was the split between Catholics and secularists; Protestantism was not an issue.

Both religion and ethnic culture were divisive issues in the United States. The American middle-classes were mostly British and Protestant. Irish and German immigrants—mostly Catholic—had come decades before to the United States, and the Protestant middle-classes discriminated heavily against them. Around 1900, massive immigration brought in mostly Catholics or Jews from eastern and southern Europe. More than 75% of American laborers in this period were immigrants or the children of immigrants (Gutman 1987:385; Zunz 1982:101). They lived in ethnic enclaves, and continued the consumption patterns of the home country in dress, food, decoration, and leisure pursuits. Middle-class Americans found these alien immigrants threatening, considered them different and inferior races, and shunned them (Altschuler 1982:43–44, 46–47). In short, the combinations of religion, ethnicity, and class, and the sheer size of immigrant populations, differed greatly between the two countries, and were far more divisive on the western side of the Atlantic than on the eastern side.

The middle-classes of the two countries also had different strategies for managing workers as a class. As Matt (2003:6) has pointed out, the American middle-classes "jealously guarded the privileges and possessions that distinguished them from those lower down," and avoided products that workers used. U.S. middle-class people physically segregated themselves from immigrants by moving to suburbs, continuing a long American pattern of exiting situations rather than facing them (Hirschman 1970: Ch.8). At least one former rider was honest enough to admit that he had stopped cycling because it had become so "common" (*BW* 26 Mar 1904:737). Another was reported to have said "that he greatly enjoyed cycling, but that when the bicycle became within the reach of the common folk, or the gentleman of color, he felt that there was danger of associating himself with a lower caste" (*BW* 24 Feb 1906:491). Considering the antipathy between the Protestant middle-classes and the "ethnic" working-classes, there were probably many who felt exactly as they did but dared not admit it.

The French bourgeoisie also feared workers (Thompson 1997:29), yet they dealt with workers differently than did the Americans. The French bourgeoisie engaged with workers to control them:

"Frequently local notables, such as the mayor, a prominent industrialist, businessman or government official, assumed the highest positions in a cycling club" (Thompson 2002:138). Sometimes these were purely honorary positions; the President of the French Republic "did not hesitate" to respond positively when he was invited to be "High Protector" of the U.V.F. (Gousseau 1907:38). It is difficult to imagine Theodore Roosevelt having any association, even honorary, with the L.A.W. after 1900. Lower-middle-class people of Paris, such as clerks and salespeople, associated relatively freely with both workers and bourgeois, and borrowed values and product use from both groups (Berlansten 1984:30–35).

All this means that the American middle-classes had greater incentives to imitate wealthy, fashion-setting elites, and strong incentives to differentiate themselves from "alien" workers through their fashion patterns. In contrast, the incentives for French middle-class imitation of elite fashions were weaker, and though the bourgeoisie clearly differentiated itself from workers through fashion, sometimes they achieved this through leadership, not differentiation.

The American retailer who explained the collapse in the quote above also cited infrastructure. These did not cause the crash, but the cushioned much of its impact. American cities enjoyed a trolley-building craze along with the bicycle craze (McKay 1976:10–15, 47–50, 85–94). By 1902, there were 16,645.34 miles of trolley track in the United States (U.S. Bureau of the Census 1915). France had only 2,611 miles of trolleys in 1900 (*Annuaire Statistique* 1901:166–167). This 8:1 difference in mileage might seem to have had a powerful influence on bicycle use. On the other hand, almost all large French cities had electric trolley systems, called "tramways," established by 1900. The mileage comparison should be adjusted by population, which would suggest a mileage ratio of 4:1 between the two countries, not 8:1. And the middle-class suburbs around the edges of American cities contrasted with the clustering of elites and middle-classes in French city centers, meaning that the mileage difference meant even less.

Trolleys competed directly with leisure bicycle riding in cities (*BW* 15 Aug 1901:407). Transit use in Chicago, for instance, was "very heavy on weekends" (Barrett 1983:106–107). However, leisure use of trolleys on weekends was also higher in France than during the work-week (McKay 1976: 154, 226). American trolley lines often extended well into the countryside, and were used for "purposes purely of pleasure and of social intercourse" (*Street and Electric Railways* 1905:111). These "interurban" lines were faster, cheaper, and less work than bicycles. But inter-urban coverage varied quite widely from state to state (*Street and Electric Railways* 1905:102–105), while the collapse was national; furthermore, inter-urban lines grew mostly after 1900, not before (*Cambridge Economic History of the United States* 1996:625).

Still, the fact that the systems in the U.S. were far more extensive by 1900 than they were in France probably made the loss of fashionability easier to bear by giving urban people leisure alternatives. Likewise, the road situation made cycling harder in America and easier in France. As early as 1891, France had 328,000 miles of paved roads (Studeny 1995:261), while the United States still only had 154,000 miles of paved roads in 1904, 13 years later (*BW*, 12 Oct 1907:81). Since the U.S. population was more than double that of France in 1904, there were at an absolute minimum four times as many miles of paved roads per capita in France as in the United States, and considering continued French expansion, the ratio was probably higher by 1904. American tourists probably realized that leisure riding on American rural roads was not really leisurely; when workers started riding, the middle-classes were perhaps ready to stop.

The automobile boom started in France in 1897–98, and spread to the United States in 1899. Middle-class people in both countries found autos too expensive, but the American middle-classes stopped cycling anyway, partly due to imitation of elites and partly to disdain for alien workers, who had started riding in large numbers. The French middle-classes were more independent of (that is, less reactive to) both elites and workers, and continuing cycling. Differences in transportation infrastructure supported each country's pattern of use.

Difference, 1903–1910: French Expansion, U.S. Decline

This divergence settled into relatively permanent difference in the first decade of the twentieth century. In general, all forms of cycling—commuting, leisure riding, and racing—increased in France in this period. In the United States, leisure riding was nearly dead, and racing and commuting declined over the decade. There are many possible reasons for this increasing difference, including street layout, settlement patterns, and trolley systems, but I believe the main reason was the difference in the number of automobiles between the United States and France. The number of American autos increased very quickly, and they drove everyone else off the streets. The number of autos increased very, very slowly in France, making room for a long-term increase in bicycles.

Middle-class leisure riding continued in France. The list of new T.C.F. members for November, 1905 included many people from the professional classes, such as *rentiers*, *proprietaires* (landlords), industrialists, architects, businessmen, attorneys, insurance agents, engineers, commercial buyers, inspectors, and pharmacists (*RMduTCF*, Nov 1905: 570). New members in the U.V.F. in February 1904 included medical doctors, accountants, travel agents, as well as clerks, shop-owners, and tradesmen (*U.V.F. Bulletin Officiel* [*UVFBO*], Feb 1904: 33). Although coverage of new technologies of tourism such as automobiles, railroads, ship cruises, and even flying increased over time in the *Revue Mensuelle*, the magazine continued heavy and consistent coverage of cycling issues that began to decline only after 1906. Even then, cycling remained part of regular organization business. According to one rider, cyclists remained the bedrock of T.C.F. membership in 1910 (*Le Cyclotouriste* [*LCt*], Dec 1910:165–166). Likewise, despite the U.V.F.'s racing-friendly reputation, at least one member thought that three-quarters of the members were tourists (*UVFBO* Feb 1903:20), and its membership increased through the decade (*UVFBO* 10 Nov 1903:167; Gousseau 1907).

Multiple sources mentioned French cyclists using bicycles both for leisure and for commuting. A popular almanac wrote at the time that "offices, stores, workshops, and construction sites open and close, and in recreation and on vacation, clerks, workers, and amateurs on promenade or in the country are transformed into cyclists and pedal eagerly to their work or their amusements." (*Almanach Hachette* 1909:xxix). The president of the T.C.F. noticed that "the bicycle… is the sole mode of transport that costs nothing and is all at once a time-saver, an amusement, and a salutary exercise" (*RMduTCF* Apr 1908:146). An observer in 1912 noted that workers and clerks used it for commuting, but that it was still used for leisure (Studeny 1995:304).

The practice of "cyclotourism" became differentiated from general leisure cycling in this decade, and increased in popularity over the decade. This involved long rides far from cities, even multi-day rides, often in hilly terrain. One of the main centers of cyclotourism was Saint-Étienne, and its self-described apostle was Paul de Vivie, whom most cycle historians know as "Vélocio." De Vivie organized rides through his magazine *Le Cycliste*, which soon involved networks of at least one hundred people throughout the Loire valley. The first cyclotourist club organized in Paris in 1904; by 1909, there were six Parisian cyclotourist clubs, which started to publish a monthly, *Le Cyclotouriste*. The U.V.F. finally started seriously supporting cyclotourism in this period (*UVFBO*, Feb 1903:20; Jun 1903:88). Likewise, the T.C.F. promoted cyclotourism. In 1908, the Touring-Club voted 2,000 f. to be distributed to 16 cyclotourist clubs around France, increased the funds and the number of clubs in 1909, and increased both even more for 1910 (*RMduTCF*, Aug 1909:353; Dec 1909:532).

Racing also expanded. The Grand Prix de Paris and six-day races continued, but in general, track racing declined over the first decade of the twentieth century in France—many provincial velodromes closed (Holt 1981:94–95). Road racing, however, started to expand dramatically in this period. Such races were "spectator sport on the cheap. No facilities were needed save the roads, which they had to maintain in any case" (Holt 1981:101). Listings from a popular almanac illustrate the trend, at least around Paris. There were 14 races listed in the last half of 1907, and 15 for

first half of 1908, but 38 races in the last half of 1908, and 24 in the first half of 1909 (*Almanach Hachette* 1909:174; 1910:193). The big inter-city races, such as Bordeaux–Paris, Paris–Bruxelles, Paris–Tours, and Liege–Bastogne–Leige, were established as annual events in this period (Durry 1976:217–222). The biggest and most famous France road race, the multi-stage, weeks-long Tour de France, was founded in 1903 (Thompson 1997: 222–223).

In contrast to French expansion of all uses, bicycling in the United States after 1902 consisted mostly of commuting, deliveries, police use, and errand-running, as multiple sources attest (*BW* 25 Dec 1902:382; 21 Nov 1903:196; 14 Dec 1907:419–420; *City Engineer* [Minneapolis] 1904:461). By 1903, *Bicycling World* noted, "The bicycle is now used almost solely for utility, which cuts the demand down to a fraction of what fashion was able to produce" (*BW*, 21 Nov 1903: 196). Surprisingly, middle-class use continued. Cycling trips to the central business districts (CBDs) of American cities (or "downtowns" [Fogelson 2001:10–12]) are repeatedly mentioned. Most employees in downtowns were managers, clerks, office-workers, and other members of the middle classes. As early as 1900 the *Sporting Goods Dealer* talked about "the crowds awheel, whose course is set during the rush hour of the morning towards the business center, and again in the evening as they seek the home" (*SGD* May 1900:9). There were "large bicycle storage rooms in the downtown district" open year-round in Indianapolis, Indiana (*BW* 12 Mar 1903:705), and the traffic surveys in downtown Minneapolis demonstrated massive bicycle use there until 1910 (*City Engineer* [Minneapolis] 1902, 1906–1911). Track racing also declined: "The Grand Circuit that flourished around the country in the 1890s vanished…after the turn of the century" (Nye 1988:77). Nevertheless, some races continued, and racers remained well-paid, which indicates some continuing public interest (Nye 1988:81, 85).

All forms of cycling—commuting and racing—declined over the first decade of the twentieth century. After 1900, most bicycle stores made their money in repairs (*BW*, 3 Jan 1901:341; 27 Jun 1901:293; 3 Apr 1902:19). Yet the chart below shows that the number of such shops declined both absolutely and in relation to the population of cities. The chart probably does not reflect industry consolidation among retailers—fewer, bigger retailers in each city—because other evidence also suggests a general, more gradual, decline in cycling.

Most American cities were only partially paved in this period (McShane 1994:280), and some cities experimented with pavements. The city of Minneapolis took traffic surveys downtown from 1906 to 1912 to ascertain the traffic that the pavement would have to bear. As this chart shows, bicycle traffic downtown declined slowly, then dropped suddenly in 1911.

This should not have happened, because bicycling was actually more practical than trolley riding in this period. American riders recognized that stops and transfers made trolley commuting much slower than bicycle commuting, and they knew commuting by bicycle was, over time, much

Figure 5: Number of Bicycle Shops Per 10,000 Population
Selected U.S. Cities, 1895-1910

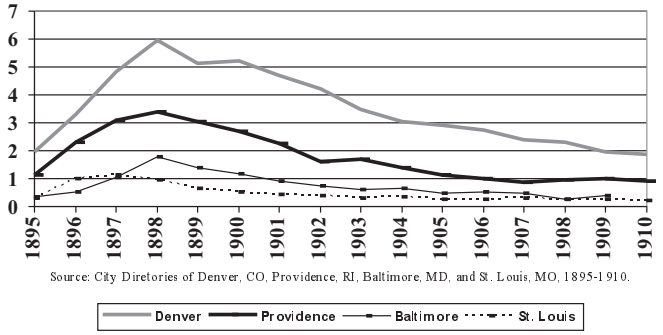
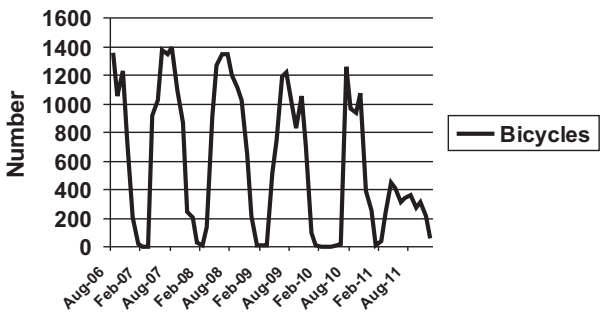


Figure 6: Bicycles in Downtown Minneapolis, 1906-1911



cheaper (*BW* 24 Mar 1906:581; 10 Nov 1906: 193). American passengers increasingly disliked their slow, dangerous trolleys (Barrett 1983:11, 87; Foster 1983:27; McShane 1994:115), while European trolley systems had good reputations (McKay 1976:198). And bicycles could go where trolleys did not. Many city improvements, such as pavement and trolleys, did not reach every area in each city (Zunz 1982:114, 123).

Decline happened because the increasing number of automobiles in American cities, which became a flood after 1910, literally drove cyclists off city streets. Cross-cultural urban transportation researchers now assume, from much research, that cyclists cannot safely share the same road with automobiles, and they believe strongly in the need to separate motorized and non-motorized traffic through paths, lanes, striping, or other measures (Clark and Page 2000; Hunter et al. 1995:14; Kim and Li 1996; Liu et al. 1993; Ren and Koike 1993; Stinson and Bhat 2003; but see Forester 1994 for a dissent). This cross-cultural, trans-historical argument that automobiles drive bicycles off roadways certainly applied to rural roads in both countries at that time. By 1904, French cyclists started taking back roads to avoid the "great" roads that auto drivers preferred (*RMduTCF* Feb 1904:70). Cyclists took rail trips to avoid the auto-heavy roads around Paris (*RMduTCF* Dec 1907:562). And the Bois de Boulogne was "the last refuge" for leisure cyclists chased from the roads around Paris (*RMduTCF* Apr 1909:158). Likewise, in the United States, by 1905 articles appeared describing how cyclists feared the automobiles on rural roads (*BW* 1 Apr 1905:12), and a driver who actually stopped to help after hitting a cyclist in 1906 was singled out as a rarity (*BW* 10 Nov 1906:15).

The infusion of automobiles into the American urban landscape also created problems. For instance, in Hartford, Connecticut, nobody was killed by vehicles or horses in 1902, and only one person died this way in 1903, but "traffic accidents suddenly began killing dozens of Hartford residents in the 1910s" (Baldwin 1999:218). This same pattern occurred in other cities; in 1910, 195 of New York City's 376 traffic accident victims were children, partly because children used streets as playgrounds in that era (McShane 1994:176). Eventually educational campaigns reduced these accidents, but by then everyone had ceded city streets to automobiles.

The same problems with automobiles that pedestrians faced also confronted cyclists. When we add the automobile counts to the Minneapolis chart, we can see how automobiles affected bicycles. Over the first decade of the twentieth century, the number of bicycles in the city center declined very slowly. However, in 1910 automobiles finally outnumbered bicycles. In the next season, the number of bicycles dropped by almost two-thirds from the previous season. When cyclists found themselves outnumbered, they, like pedestrians, ceded the streets to automobiles.

What happened at a local level is also borne out by national-level statistics. The chart below shows that in France there were huge numbers of bicycles compared to automobiles—one can barely see the curve of automobile ownership at the chart's bottom. It was extremely unlikely that automobiles were going to drive bicycles off the roads.

Figure 7: Bicycles and Automobiles in Downtown Minneapolis, 1906-1911

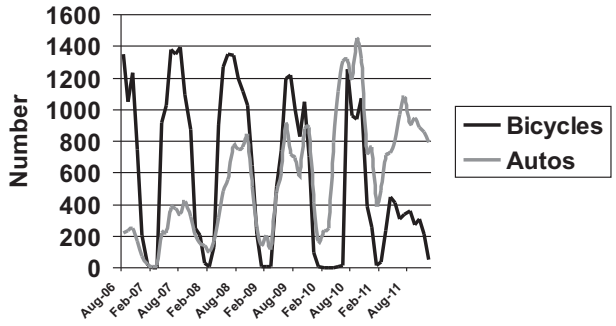
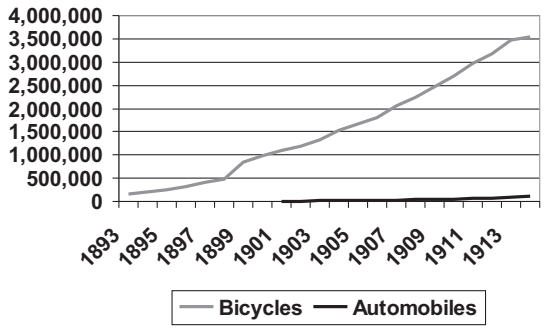


Figure 8: Bicycle and Automobile Ownership in France,1893-1914

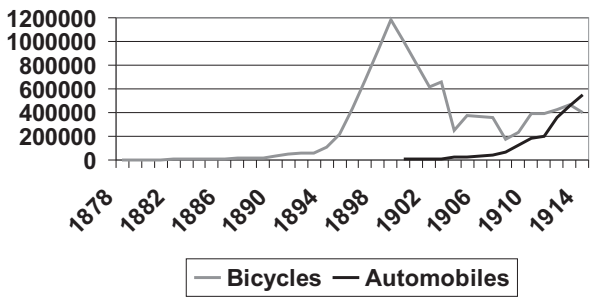


In contrast, by 1912 American automobile production outpaced bicycle production. Again, production numbers do not compare directly to ownership figures, but the overall trend is clear in both countries.

Why was there such a difference in automobile ownership? The well-known differential in productivity between the United States and Europe made it likely that the American auto industry would *put autos on* the streets more quickly than the European one. However, owning a car was much harder in Europe than in the United States. The French government, like other European governments, "slapped heavy taxes on gasoline," and regulated automobile ownership much more onerously than did American governments (McShane 1994:113). The government kept the maximum speed in cities down to 12 m.p.h., and allowed mayors and prefects to reduce the speed even further in their cities (Dupont 1910:58). American speed laws were never this restrictive, and in fact became more lenient after 1906 in the United States (Flink 1975: 27). Finally, "European cities encouraged…buses and taxicabs more than American cities" did (McShane 1994:113).

A few alternative explanations might be advanced to challenge this explanation for the differences in national riding patterns; however, none of them really pan out. For instance, street layout did not make French urban cycling easier. In the gridiron pattern in which almost all U.S. city streets were laid out (Reps 1965), each street was, in theory, almost as easy as any other in terms of getting around. In contrast, "Haussmanisation" had famously cut broad boulevards through the narrow, circuitous, and randomly intersecting French streets developed over centuries. French auto drivers clearly preferred these boulevards to side streets (*Revue de l'Association Générale Automobile* Jan. 1908:17; *La France Automobile* 29 Sep 1906:610; 4 Jan 1908:1; Sorlin 1969:111), so cyclists might have avoided them and taken those back streets. However, as mentioned above, around 50% of American streets were unpaved at this time (McShane 1994:280), so drivers used the main arterials, which were more likely to be paved, especially when trolley tracks were embedded in them (Baldwin 1999:207–208). This meant that French and U.S. auto use of streets was essentially similar, so it cannot explain this difference.

Figure 9: U.S. Bicycle and Automobile Production, 1878-1914



The layout of French and American cities differed so much that it probably made up a small part of the difference. American and French cities were arranged, broadly, in concentric rings, but the ring patterns differed. European cities had faced potential enemies for centuries, so protective city walls structured settlement patterns in European cities (Sutcliffe 1981:3–4). Land costs were uniformly high inside the walls, while they were low in the unprotected area right outside. Industrial suburbs and working-class neighborhoods developed outside these walls, while more prosperous groups stayed in the city center (Sutcliffe 1981: 141–142; Berlanstein 1984:3–4, 9–11), and this pattern certainly influenced French cities (Sorlin 1969:116–118; Agulhon et al. 1983:43–48). American settlers eliminated the indigenous peoples early, so American cities needed no walls (Monkkonen 1988:53–58). Land costs dropped steadily from the city center. Elites and then the middle classes—managers and professionals—fled crowded city centers for cheaper suburbs, supported by horse-drawn, and then electric, trolley systems (Warner 1978), while working-class ethnic enclaves stayed near the city centers in low-cost, high-density housing (Monkkonen 1988:55–56).

These spatial relationships made urban transportation patterns different in the two countries. As industrial suburbs developed, Parisian workers' commutes—accomplished only on foot—increased over the late nineteenth century (Berlanstein 1984: 123). Some workers' commutes were several hours long (Thompson 1997:130). Most American workers did not take trolleys, but also walked every-

where (Monkkonen 1988:160–161). In Detroit, workers lived in residential districts separated from industrial districts, and their walk varied from under a mile to more than two miles one way. In Philadelphia, workers' average commutes had risen from half-a-mile to a mile between 1850 and 1880 (Monkkonen 1988:161), and American cities grew tremendously after 1880. Workers changed employment often in this period, and would therefore have had varying commutes. Family members often worked in different sections of the city for employment (Zunz 1982:178–185), so a family bicycle would have provided household members more flexibility in employment and lower commute times.

In the United States, managers and professionals had long commutes to the city centers, while clerks probably had shorter ones to the same point, and despite their travel times, workers generally did not have these long commutes. The French middle classes, usually inside the old city walls, had shorter commutes than their American counterparts, while French workers had relatively long commutes, so urban layout probably had a small influence on cycling.

Both middle-classes traveled by trolleys in this period. The two countries varied vastly in both ridership and mileage: by 1912, there were 30,437 miles of trolley lines within and without U.S. cities' limits, and almost ten billion riders rode that year (Harris 1915)[4]. In contrast, in 1912 there were 5,996 miles (9,715 km.) of "tramways" (steam or electric trolleys) in France, including interurban equivalents, and ridership in 1910 reached over one billion (McKay 1976:67). This indicates a 5:1 ratio of track between the two countries, and a rough 9:1 ratio of riders. Furthermore, bicycles and trolleys did compete for commuters. Trolley riders responded to the introduction of a trolley in St. Louis in 1900 by going back to their bicycles for a while (*SGD* May 1900:18; June 1900:19). By 1905, *Bicycling World* acknowledged, "the fewer the trolley lines in a city or town, the greater is the number of bicycles in use" (*BW* 6 May 1905:155). These overwhelming numbers seem to explain neatly why the commuting divergence occurred.

On the other hand, by 1910 the population of the United States was 91.9 million (*U.S. Census* 1910:23) and growing fast, while the population of France was 39.5 million (*Annuaire Statistique* 1912:2*) and, famously, growing slowly. To compare cities directly, the largest 20 U.S. cities together had a square area 3.6 times as large as the square area for the top 20 French cities at the time (*U.S. Census* 1910:74–75; *Annuaire Statistique* 1885:12–15). When one adjusts for square area, the resulting 1.4:1 trolley mileage ratio does not seem so important.[5] As mentioned above, despite greater area in the United States, bicycles were still faster than trolleys; the greater area might have made bicycles more useful, not less. The average annual number of trips per capita in the United States in 1910 was 293; the average number in Paris that year, counting the Metro, was 205, and in Marseilles was 187 (McKay 1976:154, 197; Agulhon et al. 1983:351). The resulting ratios of average rides per capita in the United States and in France—1.43:1 and 1.57:1—are very similar to the adjusted mileage ratio. The 20 largest American cities together were 2.6 times as large in population as the 20 largest French cities, so the adjusted ridership ratio was 3.7:1. Trolley riding was primarily a middle-class practice in both countries, and middle-class workers in American cities had a much longer commute than their French counterparts, so ridership would naturally be much higher in the United States. Once trolley statistics are compared properly, it is clear that the United States enjoyed a slight, not a vast, advantage in trolley systems, one that probably did not affect utilitarian cycling in a major way.

Overall, trolleys probably played only a minor role in the decline of U.S. bicycle commuting. However, when automobiles swamped bicycles, trolleys became crucial. When there were few automobiles, commuters had two options: spending less time and money on their commute (bicycles) or exerting themselves less (trolleys). When automobiles started to fill U.S. city streets, only one option remained.

In the first decade of the 20th century, the numbers of American automobilists increased so quickly that they drove most of the already-reduced number of cyclists off the streets. No such rout happened in France, as the number of cyclists was steadily growing, while the number of

automobiles grew very slowly. Trolleys and street layout probably had little effect, but settlement patterns probably intensified the automobile's power.

Conclusion

Overall, then, French and American cycling was surprisingly similar from 1875 to 1890, and the bicycle craze led to the difference. The boom itself resulted from the French nobility's new interest in bicycles in 1892 and 1893, much noble and middle-class imitation in France and around Europe, and even more imitation in the United States. The boom lowered prices, especially in America, and this brought in new and less socially acceptable riders. The advent of the automobile sparked an imitative rush away from bicycles among fashion-conscious, middle-class Americans, but more independent French middle-class people continued riding. The rush toward the automobile drove cyclists off the streets in American cities, while no such retreat happened in France. The difference, then, between cycling in the United States and in France resulted right after 1900 from the different social and economic systems in the two countries. Only future research, done in a similar vein on cycling in other European countries, and perhaps in Canada, will tell us how generally this explanation might be able to be applied.

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Endnotes

1 The bi-monthly *Journal des Machines à Coudre et Vélocipèdes* (*Sewing Machine and Bicycle Journal*), an industry magazine, was one of my best sources on the French bicycle industry. It is available on microfilm at the Bibliothèque Nationale de France. As of fall 2001, it was mis-catalogued, and required special paper paging after my initial failed computer paging. If you want to read it, be persistent.

2 Sources from the time suggest that Dowell and Swaminathan's database involves an undercount of an unspecified degree. For instance, they list only 26 exits in 1899, the year that at least 58 firms disappeared into the American Bicycle Company. Reports of over 2,000 very small firms also suggest an undercount.

3 All the numbers given here are raw totals; I neither compiled a database nor eliminated duplicates, but simply counted. Therefore, they should only be considered a good overall view, not a precise statement. More follow-up research is necessary.

4 A much higher number of over 40,000 miles tends to be cited, but this U.S. source distinguishes between miles of "line" and miles of "track." Trolley lines often had multiple tracks, so I chose the non-duplicating number. The French numbers were measured in longeur, or "length," which suggests an equivalent to line, not to track.

5 Although it may not seem like it, increases in square area require proportional increases in linear trolley distance, because the area needs to be "filled in" with trolleys to serve all commuters, and peripheral lines also need to be built.