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# Early Debates on Quality, Market Coordination and Welfare in the U.S. in the 1930s

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FIRST DRAFT - DO NOT QUOTE WITHOUT PERMISSION

## Introduction

The concept of quality in economics, as an relevant aspect of economic coordination, has gone through ups and down since it was identified as a decision variable of the producer in a competitive monopolist environment in Chamberlin's *The Theory of Monopolistic Competition* (1933, first ed.; 1935; second ed.). To my knowledge, the concept of quality—how it has been defined and integrated into economic thinking—has not retained the attention of historians of economic thought so far. Anyone looking for milestones in the history of quality in economics will find some accounts in works done in the fields of economic sociology (Karpik, 2007), management (Garvin, 1984) and economics of conventions (Eymard-Duvernay, 1989; 2002). Through the rare articles providing some historical sketch on the concept, the reader will get the idea that it was lurking in the theory of monopolistic competition (Chamberlin, 1933), that it was implicitly accounted for in Lancaster's "new approach to consumer behavior" (Lancaster, 1966), that it was instrumental to Akerlof's "lemons" market story (Akerlof, 1970) and, eventually, that it became a relevant variable for the study of macroeconomic issues (Stiglitz, 1987). The purpose of the present article is to provide the starting point for a systematic history of quality in economics, going back some years before Chamberlin's staging of the concept. Indeed, it is our view that quality deserves more attention than it has received so far in economics and that it should not be relegated to marketing or socio-economic studies. A history of economics perspective on this concept is a requisite to help us understand the fundamental difficulties that accompany any attempt at discussing quality in standard economic thought as well as the fruitfulness of the concept for our thinking of market failures and of welfare and regulatory issues in economics. The way it has been addressed is likely to tell us a lot of how standard views on rational behavior and market coordination have overshadowed cognitive and informational aspects of consumers' and producers' behavior, which were central in many discussions about

branding, grading, and labeling of goods as well as about educating the consumer. Those cognitive and informational aspects are now resurfacing within behavioral perspectives on consumption and decision (nudge being one among many possible offspring of this) and consequently reflections on quality in economics may be a subject for renewed enquiry. Actually, many aspects of economic life related to the quality of goods—information, grading, standardizing, consumers’ representations of quality—have been at the core of many researches and discussions mainly in the 1930s in the U.S. Those researches did not proceed at the outset from broad theoretical views on competition or price coordination, instead they stemmed from practical and sectoral accounts of specific impediments experienced by producers of agricultural products on the one hand and, on the other hand, by the progressive setting up of institutions and organizations devoted to consumers’ protection, with a particular intensity during Roosevelt’s New Deal program. The present article will focus on this body of literature, with a view of enhancing the arguments pro and con the need for institutions protecting the consumer and improving the marketing of goods. First, contributions to this literature are to be replaced within a historical account of the development of institutions in charge of doing research or of implementing standards to improve the functioning of markets and to protect consumers in this period. Research on the subject of quality was undoubtedly driven by a specific historical set of events, notably the development of mass-production, marketing and branding in the 1920s and later on by the decrease of prices and losses of quality that accompanied the Great Depression. The first section deals with the institutional context. It focuses on the prominent role of the Bureau of Agricultural Economics and discusses the motivations and successes of the New Deal institutions linked with consumers’ protection. Section 2 deals with the way agricultural economists discussed the issue of quality in relation with coordination failures and their consequences on welfare. As will be shown, early debates on quality in the 20th century lead to two opposite ways of thinking about quality in relation with market coordination. Two points are in order before to embark.

First, a noteworthy aspect of the literature under study here—notably the one linked with farm economics—is that it is following its own agenda independently of theoretical developments in the academia. For this very reason, the research on quality and market coordination will barely echo on the publication of Chamberlin’s book and the follow-up literature and its is ignored as well in Chamberlin’s book.<sup>1</sup> Most of the research dealing with quality in the field of farm economics has been done during the years 1928-1939 and continued slowly after WWII until around 1950 or so, then almost vanishing.

Second, in those years, the concept of quality not having been introduced into standard economics, we cannot expect to confront ideas of the 1930s with an even idealized theoretical account of quality. It has to be approached as something that is in need of being defined and constructed against the marginalist school of eco-

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<sup>1</sup>Of course, the effects of monopolistic competition on the concept of quality in economics shall be a subject for future study. Be it enough to mention that reflections on quality based on monopolistic competition tools did not actually blossom before after WWII. However, this does not contradict the fact that many arguments used by agricultural economists do have a monopolistic competitive flavor

nomics.<sup>2</sup>

# 1 Promoting the interest of producers ... and consumers

The development of grades, brands, informative labeling, and more broadly of quality indicators as a means to improving the marketing of goods and the allocation of resources was addressed slowly in the 1910s and gained momentum in the 1930s. Our goal in this section is to present the main institutions and organizations that have been involved in the promotion of standards and grades as a means for improving the functioning of markets and the welfare of producers and/or consumers. The main features of this overview are first, that standards and grading practices have been promoted slowly due to pressures on the part of industrials against it and second, that the structuring of a policy devoted to protecting consumers has been addressed late compared with policies focused on producers protection on wholesale markets. We shall first highlight the role of the Bureau of Agricultural Economics as one of the agencies in charge of promoting quality standards. We then present the role of consumer associations and the development of Home Economics as a field of research and teaching linked with the promotion of the consumer as a legitimate figure whose Welfare should be protected and promoted by government policies. We then move to a general view of the development of standards in the 1930s.

## 1.1 The Bureau of Agricultural Economics and the Grading of Agricultural Products

The history of the Bureau of Agricultural Economics is inseparable from the history of farm economics in the U.S.A. It gathered pioneers of farm economics soon after World War I who developed sophisticated methods to estimate demand and supply functions on different agricultural markets. The BAE emerged little by little, as an extension of the Office of Farm Management, under the heading of Henry C. Taylor by 1919 onwards. He recruited new personnel along high training standards in economics and organized the Office in different committees each focused on one aspect of farm economics. His goal was to promote new methods of management and a reorganization of farms adapted to market conditions (McDean, 1983) The rise of the Office takes places in a context of rapid expansion of markets from a local to a national and international scale. Under the head of Taylor, the Office of Farm Management took control over the Bureau of Markets and the Bureau of Crop and Livestock Estimates. The BAE was officially established as an agency of the U.S. Department of Agriculture (headed by Secretary Wallace) by the Congress July 1st 1921. The Bureau of Markets, created in 1915, was in charge of helping farmers to market their crops. Notably, it organized a telegraphic market news service for fruits and vegetables. According to Lloyd (1928) it soon appeared that growers

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<sup>2</sup>This is not to deny that the issue of quality has been a relevant issue in economics since 18th century, and that it has been part of the legal-economic nexus since the Middle Ages (Lupton, 2015)

and shippers could not know whether price variations resulted from variations in supply and demand or if they reflected differences in the quality of products. Thus, the need for standardizing the goods exchanged was established as a condition for market expansion.<sup>3</sup> It was expected that standards be based on scientific inquiry regarding the factors influencing quality (and then price), in relation with the use of the goods. As Tenny (1946, 1020), a former researcher at the Bureau of Markets, puts it “other problems seemed to be getting themselves always to the front but non more so than cotton standards and grain standards.” It is most interesting that the issue of quality and standards should be in a sense a foundational issue for the BAE. The BAE was then involved progressively into establishing standards for many agricultural products. The issue of standards concerned first and foremost cotton and grain, but “in fact, there was scarcely an agricultural product for which grades were not established, and these all were based largely not only on trade practices but also on scientific studies.” (Tenny, 1947, 1022) In the 1920s, one major contribution of the BAE was the Outlook program, whose aim was to provide forecasts about supply, demand and prices of several agricultural products to farmers and to educate them to deal with the information contained in the outlook and take decisions (Kunze, 1990). For certain categories of products, it was conceived that forecasts could be published in time to allow growers to adapt their choice of plantations. As an elite institution producing research and policy recommendations, the BAE has been associated with a progressive view on economic policy—whose purpose was to devise policies that would secure faire prices to growers (McDean, 1983)—and that would deliver well organized and intelligible statistical information about prices. Contrary to farmer’s Congressmen and group leaders, most economists at the BAE were favoring equality of opportunity to farmers and government policy-making role to improve on market outcomes (Hardin, 1946). Historically, it has been considered convenient to construct official standards for the quality of cotton. Under Cotton Futures Act, the US Department of Agriculture (USDA) controlled the standardization of cotton offered on exchange contracts. Until then, cotton grown and delivered in the US was classified according to US standards, while it was subjected to Liverpool standards on international markets. There was then a move towards acceptance of American standards throughout the world in 1924.

Since its creation in 1922, the BAE’s activities have often been criticized for interfering with market outcomes (through market information given to farmers and through predictions regarding futures). However, the BAE power was limited. In 1938, the BAE was given more influence as a policy-making agency at the Department of Agriculture (rather than being centered on research). This increase of power was short-lasting due to power struggles within the Department between different action agencies, and would be even more reduced in 1947, after publication of a report on the effects of the return of veterans to agriculture. (see Hardin, 1946).<sup>4</sup> Progressively, other kinds of products benefited from grading. This could be on a

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<sup>3</sup>Among other justifications for standardization is the need for credit. Farm products being used as collateral for loans, lenders need to appraise the quality of the products. More generally, it is reducing transaction costs.

<sup>4</sup>Notably, appropriations for economic investigations were severely reduced in between 1941 and 1947, while more appropriations were given to crop and livestock estimates, thus reducing the ability of the BAE to sustain research and policy recommendations (see Hardin, 1946, 641)

voluntary basis, as for instance with potatoes. For instance, Hopper (1936) notes that the graded potatoes from other states tended to replace non graded products. The, compulsory grading was beneficial to Ontario growers, demonstrating to potato buyers in Ontario that the locally grown product, when properly graded, was equal to that produced in other areas (Hopper, 1936, 418). The BAE was in the forefront to develop standards of many farm products (fruits, vegetables, meat). Its main concern, however, was standards for wholesale markets. Concerns about consumers welfare and protection through standards and grades of quality would develop later. For instance the Food and Drug Administration (FDA) had already passed laws protecting consumers against dangerous ingredients and material in food and in pharmaceutical products, but still the protection of the consumer was minimal hand most often incidental. Also, the Federal Trade Commission regulations against unfair advertising were conceived of as a protection to producers and not to consumers. Overall, until the late 1920s, the BAE could appear as the main agency able to provide careful analysis and reflections on quality. Things would change to some extent in the 1930s, under Roosevelt's administration.

## **1.2 A Progressive Move Towards Consumers' Protection**

The following gives an overview of institutions (private or governmental) involved in promoting standards for consumer goods and protecting consumers. It points to the lack of coordination of the different institutions and their inability to develop an analytically sound basis for action. It is beyond the scope of this article to provide an overview of the associations, agencies, groups, clubs, laboratories and publications involved in consumers' protection. Rather, it is to illustrate that their helplessness in promoting significant changes in legislation reflect disagreements as to the abilities of consumers and efficiency of markets in promoting the appropriate level of qualities to consumers. This period, mainly associated with Roosevelt's New Deal programs, shows the limits and shortcomings of its accomplishment as regards consumer's protection. According to Cohen (2003; 2010), one can distinguish two waves of consumer mobilization before WWII, the first one during the Progressive Era and the second one during the New Deal (1930s-1940s), two periods when reformers have sought to organize movements to obtain more responsible and socially equitable legislations, notably regarding the protection and safety of consumers. While the reformers of the Progressive Era focused on safety laws and better prices (Pure Food and Drug Act, Meat Inspection Act, anti-trust Federal Trade Commission Act) reformers of the 1930s would insist on the promotion of consumers' welfare in general in the context of the Great Depression. The rapid development of private initiatives aimed at defending and educating consumers has been associated to the violent upheavals of the 1920s and 1930s. The 1920s witnessed an acceleration of mass-production and the development of modern ways of marketing goods and advertizing brands, while the Great Depression induced sudden variations in price and quality of goods. Movements active in promoting the protection of the consumer were very diverse in their motivations and philosophy. Consumer associations and clubs were active in organizing consumer education and lots of buying cooperatives over the country were created with a view of rebalancing the bargaining power and offering goods

that suited consumers' needs. Incidentally, consumer movements were prominently organized and activated by women—e.g. The American Association of University Women—and many consumers education programs were targeted towards women, who most often were in charge of the budget of the family (Cohen, 2010). Among private initiatives, let's mention the Consumer Research, the American Home Economics Association, the National Consumers League (founded 1891), the General Federation of Women's Clubs, the League of Women Voters, and the American Association of University Women. Several different associations have been engaged in consumers' education and protection during the 1920s-1930s. This can be looked at within a context of the "Battle of Brands", that is an overwhelming number of brands selling similar products, with important quality differences. As Ruth O'Brien, a researcher at the Bureau of Home Economics, would sum up: "Never before have we had so many consumer organizations, so much written and spoken about consumers' problems." (O'Brien, 1935, 104). Numerous college-trained homemakers did lead consumers' study groups on advertising, informative labels and price and quality variations among branded goods (O'Brien, 1935). They were trained through programs of professional organizations such as the American Association of University Women, the American Home Economics Association, the League of Women Voters and the National Congress of Parents and Teachers. Education is important above all for durable goods for which it is not possible to benefit from experience. As bodies active in the promotion of standards and labels, they were asking for facts, that is characteristics of goods: "If consumer education is to be really effective as ammunition, it must consist of carefully directed shrapnel made of good hard facts." (O'Brien, 1935, 105) Before the New Deal, there were already some governmental institutions in charge of consumers' protection, at least indirectly. This is the case of the BAE as well as of the Bureau of Standards and the Food and Drug Administration. Special mention has to be made of the Office of Home Economics (1915) that became a fully-fledged Bureau of Home Economics in 1923 (BHE); it was an agency from the Department of Agriculture whose function was to help households adopt good practices and routines of everyday life (cooking, nutrition, clothing, efficient time-use). Among other things the BHE studied the consumption value of many kinds of goods: the nutritive value of various foods, the utility of different fabrics, and the performance results of household equipment. The New Deal period appeared as a favorable period for the expression of consumers' interest. In the framework of the National Recovery Act, the Roosevelt administration sat up two important agencies in this respect: The Consumers' Advisory Board, in the industrial administration, and the Consumers' Counsel in the agricultural administration. Both were supposedly in charge of voicing the consumers' interests. Several authors in the 1930s have expressed hopes and doubts that those institutions would be given enough power to sustain a balanced development of the economy (e.g. Means, 1934; Douglas, 1934; Walker, 1934; Blaisdell, 1935, Sussman and Gamer, 1935). Gardiner C. Means (1934) offers the more dramatic account of such hopes:<sup>5</sup>

The Consumers' Advisory Board, The Consumers' Counsel—these are names which point to a new development in American economic

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<sup>5</sup>Gardiner C. Means, a member of the Consumers' Advisory Board in the National Recovery Administration was called to act as Economic Adviser on Finance to the Secretary of Agriculture.

policy—a development which offers tremendous opportunities for social well-being. Whether these opportunities will be realized and developed to the full or will be allowed to lapse is a matter of crucial importance to every member of the community. It may well be the key that will open the way to a truly American solution of the problem which is leading other countries in the direction of either fascism or communism. (Means, 1934, 7)

The move towards recognizing the importance of the consumer in the economic process and its full representation in institutions is thus a crucial stake of the 1930s. To Means and other progressives, laissez-faire doctrines, entrusting the consumer as the rational arbitrator of the economy, are based on an ideal of strong and transparent market coordination, which, it is said, was more satisfactorily met in small enterprise capitalism. Modern capitalism, on the contrary, is characterized by a shift of the coordination from markets to big administrative units, and prices of most commodities are now administered instead of being bargained. The consumer has lost much of its bargaining power and he is no longer in a position to know as much as the seller about the quality of goods. To avoid the hazards of an institutionalization of administered prices, the consumer is essential.<sup>6</sup> To Means, as to other commentators, it is high time that consumers be given a proper institutional recognition in government administration.<sup>7</sup> During the New Deal, some associations and prominent figures have been active in urging for a true recognition of the consumers interests through the creation of a Department of the Consumer (asked for by Consumers' Research) or at least a consumers' standard board. This project was notably supported by the report of the Consumers' Advisory Board known as the "Lynd Report" after the name of Robert Lynd, head of the Consumer Advisory Board.<sup>8</sup> The Consumers' Advisory Board was a much weaker organization than the Industrial Advisory Board or the Labor Advisor Board (Agnew, 1934). Despite efforts to promote some kind of independent recognition of the interests of consumers, achieving parity with Departments of Labor, Commerce and Agriculture, it was never adopted.<sup>9</sup> The literature offers some testimonies and reflections pointing out the relative inefficiency and limited power of agencies in charge of standards. On the one hand, there seems to be "general agreement that the interests of the

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<sup>6</sup>The main thesis in Means (1934) that administrative price ends with control over production and increase of prices that are detrimental to overall welfare, needs not further comments here.

<sup>7</sup>To Means, "First in importance among such organizations would come those which are in no way committed to the producer point of view—teachers' societies, organizations of Government employees, churches, women's organizations, engineering societies, and, of course, the consumer cooperatives. These organizations could in a clear-cut manner carry the banner of the consumer and act as channels through which consumers' action could be taken. They are in a position not only to educate their members but also through their representatives to exert definite pressure to counterbalance moves on the part of producer interests which would otherwise jeopardize the operations of the economy." (Means, 1934, 16)

<sup>8</sup>On Lynd's personal record as a theologian and social scientist, see McKellar (1983).

<sup>9</sup>Such a Department would be entrusted with the development of commodity grades and standards, acquainting consumers with established rules and standards, crystallizing consumer sentiment and urging business and government agencies to cooperate in the effort. To Nelson, this is a dead-born project, "Conceivably this proposal may constitute an ultimate goal; it is not an immediate practical possibility." (Nelson, 1939, 162)



consumer are not adequately represented in the process of government”, while on the other hand “there is wide diversity of opinion as to the most effective method of remedying this deficiency. Concepts of the appropriate functions to be assigned to a Consumers’ Bureau vary widely” (Nelson, 1939, 151).<sup>10</sup>

This state of institutional blockage stems from a fundamental difficulty to recognize the Consumer as a powerful and pivotal entity in the functioning of a market economy.<sup>11</sup> Clearly, the consumer represents a specific function (not a subgroup in the economy) and its interest “is diffuse compared with the other interests mentioned; it is harder to segregate and far more difficult to organize for its own protection” (Nelson, 1939, 152). More or less, similar ideas are expressed by Douglas (1934) and Means (1934). To Paul H. Douglas, chief of the Bureau of Economic Education of the National Recovery Administration, a genuine balanced organization of powers in a modern economy, searching for harmony of interests would imply the creation of a Department of the Consumer, a necessary complement to the Department of Commerce and the Department of Labor (Douglas, 1934).<sup>12</sup>

### 1.3 Helplessness of institutions regarding quality standards

If we now look more precisely at the issue of standards and grades, it turns out that different agencies in charge of setting standards (Bureau of Standards, Bureau of Agricultural Economics, Federal Trade Commission) acted in a disorganized fashion and were hampered to provide specific protection to consumers through dilution of their power (Nelson, 1939; see also Auerbach, 1949). By the end of the 1930s, the prevailing comments pointed out that the development of standards and grades for different kinds of consumers goods was not satisfactorily enforced. Ardent advocates for a new Food and Drug Act, by which a system of standards and grades of quality be established Sussman and Gamer (1935,581) make a dark picture of the situation, with only very few products being controlled by standards of quality (tea, butter) whose aim is essentially to define what is the product. The situation is one where government administrations are entitled to set standards of quality in a very loose way. Actually, Sussman and Gamer point out that committees in charge of standards have but an advisory status in general, and that the setting of standards may be purely formal, making the enforcement of laws costly and uncertain:

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<sup>10</sup>Regarding consumer education, various federal agencies render available to the consumer information which will permit him to buy more efficiently. But official publications had too limited a circulation. The best known is the Consumer’s guide, published for five years by the Consumer’s Counsel of Agricultural Adjustment Administration, with a maximum permissible circulation of 135 000.

<sup>11</sup>The original and “natural” organization of powers is done first along functional lines in the U.S. (there are departments of State, of War, of Navy, of Treasury, of Justice), each representing the citizens as a whole. When new Departments have been established, they were representing specific interests of major economic groups (Department of Agriculture, Commerce, Labor). “Thus far, the consumer has not been accorded similar recognition. This is not at all surprising. It is only recently that the distinctive nature of the consumer interest has come to be clearly understood and that its representatives have become articulate.” (Nelson, 1939, 151)

<sup>12</sup>Even under the NRA, when the Consumers’ Advisory Board was accorded parity with the Advisory Boards representing Industry and Labor, if faced constant opposition and seldom succeeded in “achieving any effective voice in NRA Policy.” (Nelson, 1939, 156)

The Food and Drugs Act, which merely prohibits the sale of adulterated products, presents insuperable obstacles to proper enforcement because it contains no indication of the standard, a deviation from which constitutes adulteration. . . . In consequence, no standards are provided by which a court may judge whether a product is in fact adulterated or misbranded. The result is that each case must stand upon its own facts and the government is obliged to use numerous experts and scientific data to indicate the proper standard and to prove that there was a departure therefrom. (Sussman and Gamer, 1935, 583)

Lack of coordination, power struggles and pressures from industry explain that the outcome of the New Deal was eventually seen as unsatisfactory in terms of consumers protection.<sup>13</sup> At the same time, the NRA has imposed informative labeling and NRA tags on many products. It has extended the power to establish standards of quality to cover all food products. It has proscribed unfair or deceptive advertising practices. But only on rare occasions rules or standards have been promulgated that went beyond the proposals made by industrials.<sup>14</sup> What comes out of debates on the proper scope of consumers interests in governmental policy is that it leads to identify the terms in which the status of quality can be handled in economics from a theoretical standpoint. Many issues will be set out on this occasion. First, there is the objective vs subjective account of quality, second, there is the impossibility to grade goods adequately according to a single scale, third, there is the scientific vs subjective way of grading, fourth, there is the allocative effect of the absence of grades or standards on the market vs the disturbing effect of standards on business and innovation, fifth, there is the effect of standards and grades on branding (and incidentally on the range of qualities available to consumers). The general trend towards more standardization and labeling was forcefully opposed by many industries and pro-market advocates. One good illustration of such views is George Burton Hotchkiss (1936). The main fear of Hotchkiss is that standardization will eradicate branding and will lower the average quality of goods.<sup>15</sup>

He brushes aside criticisms that the number of trade-marks bewilders the consumers or that trade marks achieve monopoly through advertising (Hotchkiss, 1936, 74). This is not to deny the usefulness of grades on some products when a scientific

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<sup>13</sup>Nelson (1939 160) notes that statutory provisions prohibited executive department from lobbying. "Their only permissible activity, which some are exploiting fully, is to assist independent consumer organizations to present their points of view by furnishing them with information and advice. It has proved impossible, however, to maintain any coordinated consumer lobby to offset activities of business pressure groups."

<sup>14</sup>One such example is the promulgation of rules regarding rayon industry by the FTC

<sup>15</sup>"Trade-marks have developed when consumers came to accept some marks of makers 'as better guides' in purchasing than the hall mark of the Gild, or the seal of the town or crown officer. . . . The trade-mark acquired value only through the experience of satisfied consumers, and when consumers found a mark they could trust, they did not care particularly whether it was the mark of a manufacturer or of a merchant. Even though the modern factory system has made it possible for manufacturers in many fields to dispose of their whole output under their own trade-mark, many of them still supply merchants, wholesalers, and large-unit retailers with equivalent merchandise to be marketed under their private trade-marks. Only a small proportion of consumers know or care that one trade-mark is a mark of origin and the other of sponsorship." (Hotchkiss, 1936, 73-74)

grading is possible.<sup>16</sup> However, Hotchkiss questions the use of standards imposed by official regulation, because the benefits are counterbalanced by more disadvantages and because limits to the sellers initiative in the end limit the freedom of buyers. Also, buying by specifications (intermediate goods) is not perfect and cannot satisfy all departments within an organization. Or else, there is no absolute uniformity in testing articles and fallible human judgment leads to approximations. Hotchkiss's assessment is typical of a pro-market bias by which in the end consumers, on an equal footing with producers, participate through their choice in fostering the adequate production of an adequate range of qualities for different products. Administrative intervention would but corrupt such a mechanism:

The whole history of official regulation of quality can be summed up as follows. No form of it (that I have been able to discover) has over any long period, been honestly or efficiently administered. No form of consumers' standards has continued to represent the wants and desires of consumers. No form of regulation has ever succeeded in protecting the consumers against fraud. Nor form of it has failed to prove oppressive and irksome to consumers themselves. Few business men have any confidence that a trial of official regulation of quality in America now would work out any more successfully. (Hotchkiss, 1936, 77)

Besides, it would prevent the sound regulation through consumers' sovereign judgment:

The marketing of consumer goods is still accompanied by many abuses, but they cannot be ascribed to helplessness on the part of buyers. On the contrary, the marketing system in twentieth-century America puts greater power in the hands of consumers than any similar group has ever known. The power they exercise in daily over-the-counter buying can dictate standards of quality far better than can be done by delegated authority. They can force the use of more informative labels and advertising. (Hotchkiss, 1936, 77-78)

This process can be achieved through private initiatives to diffuse information to consumers. The modern housewife has to search for information by herself, with the help of domestic science experts, dietitians, testing laboratories, always keeping the power of final decision.<sup>17</sup> Hotchkiss' stand is in line with a tradition of strong opposition to establishing standards and grades of quality.<sup>18</sup>

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<sup>16</sup>In a few fields, such as dairy products, considerable progress has been made toward setting up grades that are useful to the ultimate consumer. This is easier with milk, where the degree of freedom from bacteria may be the basis for distinguishing between Grades A, B, C, than with butter or cheese, where relative desirability rests on a composite of characteristics. 'Scored' butter has been available for some time, but only a small percentage of housewives have shown a disposition to use the 'score' of butter as their guide in purchasing. Even in buying milk the Grade is only one of many factors that determine the consumers' choice. (Hotchkiss, 1936, 76)

<sup>17</sup>The only thing that could induce a consumer to forego partly their freedom of choice is the offer of a financial saving, through buying cooperatives (like book clubs), thus abiding to the choice of books made by their committee. (Hotchkiss, 1936, 78)

<sup>18</sup>The opposition to give the government authority on standards, for instance, was successful in the 1906 Food and Drug Act, senators arguing that "each case should stand upon its own facts" (quoted by Sussman and Gamer, 1935, 585)

This running idea of a well informed consumer, having at his disposal, if he wants to, sufficient information to make his choice, is precisely what is challenged by consumers' protection movements. Ruth O'Brien, a researcher at the Bureau of Home Economics, notes that precisely consumers' organization have resentment "at the fog which baffles and bewilders anyone trying to compare the myriad of brands on the present market." (O'Brien, 1935, 104) What then should be the right extent of a legislation on standards? Going beyond traditional oppositions, the question was addressed from different standpoints, which laid the foundations for making quality a subject of inquiry for economists. A minimal conception would uphold for the provision of definitions of identity, eliminating the problem for courts of determining whether a product is or is not what it is supposed to be.<sup>19</sup> This preliminary step is notably insufficient if it is to protect consumers, who have no way for ascertaining the quality of a product and its ability to satisfy their needs. To this aim, minimum standards of quality are required. Even those would not be enough most of the time if a legislation is to be oriented towards protecting consumers, therefore "a comprehensive scheme of consumer protection must embrace definitions of identity, minimum standards of quality, and grades" (Sussman and Gamer, 1935, 587). Beyond, there are questions left to scientists and technicians, to economists and psychologists regarding the adequate basis, factors, attributes, properties and characteristics to grade a product. Here, we arrive at the difficulty in deciding with reference to what standards should be determined and of putting such standards in an Act, because they may reveal out-of-date or faulty, and because revisions have to be made in due time due to constant innovations of products and new uses. Manufacturers must innovate and develop their business within a context of constancy of standards. Consequently, "the legislators' function is limited to providing that mechanism which will best serve the purpose of the scientist or technician. Any attempt to set out standards in the act itself might seriously limit the effectiveness of a system of standards and grades." (Sussman and Gamer, 1935, 589) Fundamentally, even authors who are definitely aware of the necessity to protect consumers tend to recognize the complexity of erecting such a set of standards if it is to be neither purely formal nor contriving with some principles of market mechanism and individual liberty: "it is doubtful if government can do more than establish certain minimum standards of physical quality for that limited class of products, the use of which is intimately related to public health and safety. It is also doubtful if its sphere can be much extended without public regulation and control on a scale incompatible with our ideals of economic liberty." (Walker, 1934, 105) This overview on the motives and debates on the protection of the consumers and of farmers as a specific category of agents in the 1930s shows that there is no consensus as to the proper scope of government intervention and as regards the kind of standards and grades to be promoted. In the end of this descriptive overview of the stakes of introducing quality indicators on goods, it turns out that quality is identified as a complex subject for economics which has definite consequences on market outcomes, and for that very reason which deserves to be analyzed in a scientific way (through

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<sup>19</sup>"No longer will a court, in a prosecution for adulteration or misbranding, be compelled in the first instance to determine whether a particular article is or is not a macaroon" (Sussman and Gamer, 1935, 585)

statistical evaluations, through experiments, through theoretical modeling). Even though the absence of standards or grades is identified as a source of coordination failure, net losses to producers and consumers, the best way of intervening, through purely decentralized and private certifying bodies or through Governmental agencies, is open to debate and in need of economic inquiry. However, in the 1930s, the stage was set for a serious discussion of quality issues into economics. Economists involved would certainly share the view that the subject of quality is definitely an essential element of market coordination, with potentially important welfare effects on both consumers and producers. 35 years before Akerlof (1970), Ruth O'Brien could summarize the situation in a clear-cut manner:

Grade labeling will affect the brand which has been selling a C grade for an A price. It should. It will affect unethical advertising. It should. But it will help rather than hinder the reputable manufacturer and distributor who now are obliged to meet such kinds of competition. *We are all familiar with instances in which a very poor quality of a commodity has completely forced a higher quality off the market because there was no grading or definite means of informing the public of the differences between the products.* Only superlatives were available to describe both. It is not to the consumer's interest that all low quality be taken off the market. But it is to her interest that she know what she is buying, that she pay a price which corresponds to this quality, and that she have a basis for comparing different qualities. (O'Brien, 1935, 108, emphasis mine).

## 2 Quality as a supplementary datum for economics

This section aims at understanding how the concept of quality could make its way into economic analysis proper. What has been seen in the first section is that there have been debates about quality and standards in the 1920s and 1930s that were driven by the identification of inefficiencies on markets, specifically on farm products markets. The view that what is being sold on markets is as important as the price at which it is sold was firmly established. From a history of economic thought perspective, what needs to be addressed is how economists would engage in giving this idea a scientific content, that is, how they would endeavor to adapt the framework of the marginalist theory of value in order to make room for quality as supplementary datum of economic analysis. In the following, I regard work in the field of farm economics as a set of seminal contributions growing out of the context of inefficient market coordination on agricultural products described above. One cannot expect to see a whole new set of theory coming out well packed from those reflections. On the contrary, the best that we can expect is a set of ideas about analytical and theoretical issues linked with quality that suggest the intricacies of the subject and the methods to be followed to analyze quality issues. As a first step, I present Frederick Waugh's 1928 seminal statistical work and follow-up literature, which serve as a starting point to identify themes and the lineaments of their theoretical treatment.

## 2.1 Price-quality relationships for farm products

Frederick Waugh pioneered work on quality and its influence on market equilibrium. “Quality Factors Influencing Vegetable Prices” appeared in 1928 in the *Journal of Farm Economics*, and was to be mentioned quite often as a reference article on this topic, giving an impetus to lots of research on quality of farm products. Waugh’s contribution is of first importance, and probably it went unsurpassed in terms of method, setting up a standard of analysis for the next decade. His goal is to focus on quality as a factor influencing price differentials among goods at a microeconomic level, and this is as he puts it “an important difference” (Waugh, 1928, 185). The originality of Waugh’s study is to concentrate exclusively on the “causes of variation in prices received for individual lots of a commodity at a given time” (Waugh, 1928, 185). The motivation behind is not purely theoretical; it is that variations between the prices of different lots affect the returns to individual producers. One central point that needs considering is how Waugh and his followers would define quality. Quality, eventually, is any physical characteristic likely to affect the relative price of two lots of goods at the same time on a market. For instance, regarding farm products, it can be shape, color, maturity, uniformity, length, diameter, etc.); and it is the task of the economist to discover those that are relevant from a market value perspective. One can note that quality factors are those that are to play a significant role on the market, at the aggregate level; consequently, it is assumed that even though some consumers may not be sensitive to such or such characteristic, quality factors are those that are commonly accepted as relevant to construct a hierarchy of values on the market and to affect the relative prices of goods. Here, a first comment is worth doing. Even though individuals may be giving some relative importance to different sets of characteristics, only those characteristics that are relevant enough in the aggregate shall be kept in the list of quality characteristics. In some sense, we can say that from this perspective, the market prices observed on different lots reveal quality characteristics. The aim of Waugh is not to question quality per se, but rather to identify that each market for an agricultural product, say cotton, is actually the aggregate of different sub-markets on which different qualities of cotton are supplied and demanded. But at the same time, Waugh is also aware that the information and marketing processes can be misleading and ineffective if they do not correspond to the quality differentials that make sense to market participants. We are thus here, at the very beginning, at the crossing between two potentially different ways of analyzing quality and the coordination aspects linked to it: One that relies on the forces of the market—a balance between producers and buyers behavior—to construct quality scales and reveal what counts as a determinant of quality; another one that recognizes that participants in the market are active—perhaps in an asymmetric way—in constructing quality differentials (through marketing and signaling devices) and in making prices reflect those differences. The motivation for the whole analysis is clearly to help farmers adapt their production plan and marketing behavior to take advantage of as much as the market can offer them:

The farmer must adopt a production program which will not only result in a crop of the size most suited to market conditions, but he must produce varieties and types of each commodity which the market

wants and for which it is willing to pay. His marketing methods, also, should be based on an understanding of the market demand for particular qualities. Especially, his grading and packaging policies should be based on demand if they are to be successful. Such terms as ‘No.1,’ ‘A grade,’ or ‘Fancy’ are meaningless unless they represent grades which reflect in their requirements those qualities which are important in the market. (Waugh, 1928, 186)

On the one hand, it is assumed that we can be confident that the market will deliver information both on what counts as quality and how much it counts (as explaining a price differential). Let's note that this may be demanding too much of markets, which are first supposed to indicate the equilibrium conditions for each well identified product, for given conditions on supply and demand.<sup>20</sup> On the other hand, if a relevant quality differential is assumed to exist on a market and that this quality differential is not reflected enough—or not at all—in price differentials, then the market is deemed inefficient and it is interpreted as the result of an inability of participants to discriminate between the qualities of different lots. The fundamental tension is here, in the fact that it is expected too much from market data; First to indicate price premium paid to the best quality, second to identify relevant characteristics that explain them, and third to reveal market failures to value quality. From the last quotation, we would tend to understand that to Waugh, objectivity about quality is structured on the demand side and that farmers should adapt their production and the information associated to each lot to the kind of information that is relevant for buyers/consumers, to the exclusion of other kinds of information.<sup>21</sup> Waugh (1928) reports the results of a study of different products at the Boston wholesale market recording the price and quality of lots sold and analyzing the influence on price of various factors through multiple correlation methods. We shall retain his analysis of the markets for asparagus and cucumbers. The asparagus market reveals that green color is the most important factor in Boston, explaining 41% of the price variation, while the size factor explains 15% of variation of the price only. As regards cucumbers, two factors were measured, length and diameter

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<sup>20</sup>We will not digress on this issue in a purely theoretical fashion, which would lead us much too far.

<sup>21</sup>Remind that Waugh focuses mainly on wholesale markets, where buyers are middlemen. Waugh relies on some statistical studies already done or being done to the effect of eliciting a quantitative measurement of the effect of quality on price. One is on the influence of protein content in wheat to prices, another one is on egg quality and prices in Wilmington. The goal of those studies is quite practical, it is to identify a possible discrepancy between the structure of demand in terms of quality requirements and the actual structure of supply, and to discuss the possibility for farmers to adjust the production in terms of quality. Of course, most of the reasoning can apply to markets with ultimate consumers: “If it can be demonstrated that there is premium for certain qualities and types of products, and if that premium is more than large enough to pay the increased cost of growing a superior product, the individual can and will adapt his production and marketing policies to the market demand.” (Waugh, 1928, 187). Occasionally, Waugh criticizes existing surveys who aim at discovering desirable qualities to consumers, because they give no idea of their relative importance, because they are often biased by the methods used, and eventually because the choice of consumption will depend not only on quality but also on price (see Waugh, 1936)

(expressed as a percentage of length), and length explains 59% of the price.<sup>22</sup> The main conclusion is that there is a discrepancy between what counts for consumers and what serves as official characteristics used for grading the goods:

This type of study gives a practical and much-needed check on official grades and on market reports. It is interesting to note that U.S. grade No1 for asparagus does not require any green color, and the U.S. grades for cucumbers do not specify any particular length nor diameter. It is true that the length of green color on asparagus and length of cucumbers may be marked on the box in addition to the statement of grade, but if these factors are the most important ones, should not some minimum be required before the use of the name? (Waugh, 1928, 195)

To sum up, Waugh considers that on a specific market— here the Boston market— there is an objective hierarchy of the lots sold according to some qualities that buyers consider the most relevant, thus ignoring others. It is not clear however to what extent producers are aware of those relevant qualities (in their sorting of lots). This hierarchy is manifestly at odds with the characteristics that make official grades used by sellers on the market. There is thus a likely discrepancy between the required characteristics of official grades (which are constructed outside the market) and the ones that are important on the market. Waugh calls for a better overlap between official grades and the preferences of consumers (or retailers) on the market.<sup>23</sup> One year later, in 1929, the *Journal of Farm Economics* would publish a symposium on this very same topic of price-quality relationships, later followed by many studies on different farm products. Clearly, the analysis leads to challenge the theory of value, that relies on scarcity and utility, because at best it does not deal with the influence of quality on utility (Youngblood, 1929, 525).<sup>24</sup> Farm economists working on quality agree that producers, especially farmers, do not care about producing better quality and improving their revenue. They care predominantly about increasing the yield. More, marketing practices on certain markets show that cotton is sold on the basis of an average price corresponding to an average quality. Here, we touch to the issue of a performative effect of the use or non-use of standards on markets. Because high quality cotton is not rewarded on local markets, producers are not inclined in planting high quality cotton and are creating the conditions for expelling even more better qualities out of the market: “While the individual farmer may feel that he is profiting by the production of low-grade or short-staple cotton, he is obviously lowering the average of the quality of cotton in his market and, therefore, the average price level not only for himself but for all his neighbors. From a community standpoint, therefore, the higher the quality of the cotton, the higher the price level.” (Youngblood, 1929, 531) Clearly,

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<sup>22</sup>Waugh also identifies factors affecting the price of tomatoes. The main factors affecting the price of tomatoes are firmness (30%) and absence of cracks

<sup>23</sup>But Waugh also wonders whether this hierarchy on the Boston market is the same on other markets.

<sup>24</sup>The standard theory assumes that goods on a market are homogeneous and that there is not the slightest difference in quality between two units of the same good consumed. Otherwise, this would cause a change in the preference for goods and a consequential change on the ratio of exchange (Jevons, 1871; Clark, 1899)



Youngblood anticipates very important issues: “It need not be expected that the cotton growers will appreciate the importance of quality so long as they have no adequate incentive to grow better cotton” (Youngblood, 1929,531). Actually, this is often the case on unorganized markets (mainly local markets) contrary to big regional or national markets, where trading is based on quality.<sup>25</sup> If it is recognized that quality differentials are not systematically accounted for, how can we expect to provide some objectivity to quality as a relevant economic variable? Implicitly, the answer is that some markets, particularly the biggest and best organized can be taken as a yardstick, as providing an objective scale for quality and price differentials. What we would like to point out is that in this body of literature, the markets are given a power to make appear positive valuations of quality differential, provided that participants receive adequate incentives. Clear-cut facts are to be enough to make things function and increase the wealth of growers. This contention is backed on the principle that the market failure can be established through comparing its outcome with the outcome of another market (with similar goods exchanged)

An important point in our story is that more or less, all the economists involved in those years, working in the field of agricultural economics, seem to say that the system of grading is recognized by some participants in the markets, but not by all. Then, this lack of information or knowledge prevents the working of the markets from central markets to local ones. In the case of cotton, impossibility to assess correctly quality and to value it leads to careless harvesting and to breeding high-yielding short-staples varieties, thus leading to a sub-optimal equilibrium on markets (Cox, 1929).<sup>26</sup> The remedies to this situation are to concentrate markets by eliminating smaller ones and create enough business and to develop community production and cooperative marketing. Within a very short time span, a great number of studies on quality as related to price were conducted along the methodological lines set out by Waugh (1928) (see Tolley, 1930, Waite, 1934; Norton, 1939). Again, the common view is that those studies should serve as guides to production and marketing methods and in establishing standard grades representing variations in quality corresponding with market price differentials. Most of those studies concern the wholesale markets and are suppose to help improving coordination between producers and middlemen (shippers, merchants) Some study point to the fact that markets can be particularly biased, giving no reward to quality differentials. For instance, Allred et al. (1934) show that on spot markets, growers are not rewarded for better quality above Middling. For those qualities, the hierarchy is not reflected in prices.

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<sup>25</sup>A number of experiments carried out by the BAE on cotton have explored the link between price and quality. They confirm “that staple length is of greater significance than grade (Crawford, 1929) on organized markets, but not on unorganized ones: ‘The unorganized local cotton markets rather effectively kill all incentive that a farmer may have to produce cotton of superior spinning utility. The question of the proper recognition of quality in our local markets is one of the fundamental problems with which we have to deal in cotton production and marketing.’ (Crawford, 1929, 541)”. From statistics on trading on those markets, it turns out that staple length rather than grade is important for price differentials. The need is to provide clear-cut facts about the respective values of different grades on the markets (notably for exporting) and to adapt cotton growing to international demand.

<sup>26</sup>“the farmers are not able to class their cotton accurately and a large percentage of the local buyers are not able to do so. Bargaining is done in horse-trading fashion on price and not on quality.” (Cox, 1929, 548)

<sup>27</sup> To improve the coordination on those markets, it is thus necessary to improve the bargaining power of sellers (growers) and to improve their knowledge of quality and to develop a good system of classing. <sup>28</sup> From this overview of studies done by farm economists, a first blind spot can be identified. In some cases, it is said, sellers and buyers are able to bypass usual grades and prices are established according to some quality characteristics that seem to be reasonably shared by both parties on the market. In other cases, notably in the case of cotton, it is deplored that even though some quality characteristics could be identified as relevant for price differentials, it can happen that some participants do not make efforts to improve the quality of their crop or to sort it out in a proper way, thus making up the conditions for a market on which high quality will not be rewarded, in which traders expect that the relevant variable for dealing will be price and no one expects much from quality differentials. Everything happens as if because they fear that the quality differentials will not be rewarded enough to cover the cost, it is not necessary to grow high quality cotton. What needs to be understood then is how far markets are deemed efficient enough by themselves to make quality differentials be valued; and if not, what is the proper scope of government intervention.

## **2.2 Making quality objective: markets do not lie but implementing a common language on quality is not easy task.**

Following Waugh's and other farm economists' contributions, we can identify a first set of works whose aim is to discuss the discrepancy between actual systems of grades and the factors that are explaining price differentials. The economist's point of view on grades, as we have seen, is that consumer grades are a means of securing the competitive conditions on the market. Grades are systems of classification of goods aimed at facilitating economic processes, providing information to market participants (producers, growers, middlemen, cooperatives, wholesale buyers, consumers) and meliorating the formation of prices and consumer's choices. Grades were sometimes adopted on organized markets but not so much regarding the sale of commodities to consumers. Thus, if it is expected that grades play a coordination function on markets, it is necessary that the meaning of each grade be relevant to market participants, notably to buyers. It has been often remarked after Waugh (1928) that the construction of standards does not fit necessarily with the consumer/buyer view of quality. This is in itself a subject of passionate debates, which has many dimensions. It has to do with measurement issues, with consumers preferences, with multidimensionality of quality, and with the variety of uses that a given good can serve.

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<sup>27</sup>Regarding lower grades (inferior to Middling), the price paid and the discounts are more or less reflecting the discounts observed on spot markets. More or less, most studies confirm those results, confirming the weak relationship between quality and price (see Cox (1931), Kapadia (1936), Hauck (1936, 399), Garver (1937, 807)). Among factors explaining this situation is the fact that those local markets are not as liquid as are spot markets.

<sup>28</sup>This may imply to promote the use of single variety communities, of good practices for harvesting and ginning, to introduce licensed classing of samples offered by association of growers. There were some cotton classing schools. On the art of classing cotton, see Palmer (1933)

*The data of quality measurement* The most common explanation is that factors affecting quality are not easily measured. As Tenny (1928) puts it, “It must not be supposed that Federal standards for farm products necessarily reflect the true market value of the product. There are several reasons why they may not. For instance, there are frequently certain factors which strongly influence market quality for which no practical method of measurement has been devised for use in commercial operations. Until comparatively recently the important factor of protein determination in wheat was ignored in commercial operations although it was given indirect recognition by paying a premium for wheat from sections where the average protein content was high.” (Tenny, 1928, 207) Here, there is the tension between a tendency to privilege characteristics of goods that can be measured in a scientific way without relying on subjective judgment, like moisture or protein content for different kinds of cereals. The question is to what extent those characteristics are likely to allow the establishment of grades adapted to the functioning of markets?<sup>29</sup> However, grading cannot result always from scientific measurement. It is often a matter of judgment, appealing to the senses of sight, taste and smell (for butter).

*Dealing with multidimensionality* Another difficulty with grading is that the multidimensionality of quality makes it unfit for measurement along a single dimension. Lots of examples are discussed in the literature. Probably the agricultural product most studied in the 1930s is cotton. For the case of cotton, the usual grades used for standards are color and freedom from trash.<sup>30</sup> It is known that the length of the staple is an important factor too, but it is dealt with separately (Lloyd, 1928). Apart from standards on the quality of the bale, there are seven basic grades of cotton linters, based on the length of the fiber. Grades, if they are to synthesize a set of properties not correlated in the good, must be constructed on the basis of an idealized good. For instance, quality grades of cotton have been constructed on the basis of a cotton having perfect uniform fibers, characterized by its strength and brightness. According to Youngblood there has been a development of “the art of classing” (Youngblood, 1929, 527; see also Palmer, 1934) first through private standards built by spinners, and then later through official standards. However, “within reasonable limits, adjacent grades, staple lengths, and characters of cotton may substitute for each other in a given use.” (Youngblood, 1929, 528) and no synthetic indicator has been devised. The simplest way of establishing a one dimensional synthetic grade is to calculate a weighted average of different scores obtained for different factors of grade, as has been done for canned products (Hauck, 1936) If ever it seems impossible to merge two or more quality properties into one, then it may be enough to grade different characteristics independently and then to let the consumer choose the combination he prefers.<sup>31</sup> It may be difficult to obtain a useful grading system if based on too many factors, because those factors can be met

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<sup>29</sup>A connected issue is that some standards that can be adapted to the wholesale market will be useless on the retail market.

<sup>30</sup>Grading cotton consists in appraising the cotton by observation of the color, the bloom, and the amount of waste appearing in a sample of cotton taken from the bale, while stapling is the method of valuing the cotton by measuring the length, strength and fineness properties of the fibers. These estimates are subject to considerable errors of judgment.

<sup>31</sup>e.g. a blanket can be graded according to warmth and according to durability.

independently. If a given lot is high according to some factors and off for another, it can lead to rank it low. This can lead participants in the market to trade without taking account of the official grade (Jesness, 1933, 710). Also, the factors relevant for grading can change according to the final use of the goods. Color of apples is important for eating but not for cider purposes.

*Grades and consumers' preferences* There seems to be a large consensus that grades should be implemented as much as possible in reference with consumers' preferences:

No useful purpose is served in attempting to judge the flavor of butter unless flavor affects the demand for butter. If color has no influence on demand, why be concerned with an attempt to measure it? The problem of defining market grades in reality is one of determining the considerations which are of economic importance in influencing demand and then to find technical factors which are susceptible of measurement as a means of assigning proper weights to each of them. The economic basis of grades is found in factors affecting the utility of goods and hence the demand for them. Grades are concerned with the want-satisfying qualities of products. (Jesness, 1933, 708-709).

Actually, this leads to recognize that very few is known about consumers' preferences and their willingness to pay a premium for such and such quality differential (Hauck, 1936, 397). In dealing with this aspect of the construction of official grades and standards, we arrive at a limit point. Shall we assume the consumers preferences are given and that all agree—or at least the majority—with the list of relevant characteristics that make quality. For instance, Jesness's, chief of the Federal Bureau of Agricultural Economics, recognizes that in case consumers are not aware of the meaning of grade, they will soon learn to adopt the grading system provided to them by experts:

That the consumer may not always appear to exercise the best judgment in his preference is beside the point. The primary purpose in grades is to recognize preferences as they are, not as the developer of grades may think they should be. This, however, is not a denial of the possibility of using established grades as a means of educating consumers in their preferences. (Jesness, 1933, 709)

Thus, in the end, if it turns out that no grading system is self-evident and easily recognized as useful to consumers, at least it can function as a focal point and become common knowledge. There must be some expert way of indicating a hierarchy of products qualities. At the same time, there is much to known about consumers' behavior. Certainly, there may be different demand schedules according to grades, and it would be useful to obtain information about the influence of grades over one another and to know precisely what consumers use the product for (Jesness, 1933, 716; Waite, 1934). Even though economists are well aware of this, they can but acknowledge that no satisfactory methods for eliciting preferences have been devised. Eliciting preferences from observation does not deliver information about what the consumer is aware of and what, if ever he is, he takes as relevant for his

choice.<sup>32</sup> Waite, for instance, advocates for giving the consumers information that he may not at first consider as relevant for his choice and for the quality of goods he consumes:

It is a valuable thing to indicate to consumers specifications of essential qualities even though these do not become reflected in price, but this is more or less of a social problem since it involves the should aspects of the problem. Economics demands that we proceed somewhat differently and endeavor to indicate groups that are significantly price different both from demand and supply aspects. (Waite, 1934, 253)

*Articulating preferences and income* Agricultural economists did not engage very far into the study of preferences. The main idea is that there should be some representative preferences and buying practices for different strata of income. Knowing better about preferences by income groups shall help to know what percentage of production of a top grade is necessary in a crop to make it pay better to sort them out to sell separately (Hauck, 1936). To Norton, for instance, different markets are actually to be related to different strata of income: “What is needed for accurate analysis of retail price differentiation is an accurate measure of how different strata of demand respond to different price policies. Certainly the theoretical reactions of groups will vary. At high-income levels a minor change in the price of a food item will not affect purchases; at low-income levels, it may have a decided effect.” (Norton, 1939, 590)<sup>33</sup> As Froker (1939) would point out, most preference studies merge preferences and demand behavior (Froker, 1939). Notably, providing incentives to farmers to increase quality should not lend them to think that the best quality can be sold without limit.<sup>34</sup> As Rasmussen (1939) would make clear, only a small proportion of American families do have sufficient incomes to buy the best quality of food. In the end, only a comprehensive study mixing knowledge on preferences, incomes and uses of product would allow to develop a system of grades that improves market coordination: “If grades are to be the means both of increasing net farm income and of consumer satisfaction, it seems obvious that such grades must

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<sup>32</sup>The method of questionnaires or statistical studies on choice are criticized. They will not disclose what the consumer would do if granted the opportunity to buy the good. Besides usual difficulties, one must get an idea of whether “failure [of a characteristic] to be price significant is due to inability of consumers under present marketing methods to differentiate these qualities, or consumer ignorance of their importance, or simply indifference of consumers” (Waite, 1934, 252).

<sup>33</sup>Norton (1939) is probably one of the first to link his analysis with Chamberlin’s theory of monopolistic competition. To Norton, different factors used to differentiate food products to reach income groups might be classified as follows: A. service differentials: delivery vs carrying; cash vs credit; packages vs bulk; B. Product differentials: “quality: a range of choices”, size, price of cut; “style: up-to-the-minute or out-of-date”; C. Advertising differentials : branded vs unbranded; featured characteristics vs standard grades; presumed uniformity or necessity for expert knowledge. The factors put to the fore differ according to the farm products. Illustration with the milk market of New York City and the automobile industry (proposing different lines of cars at different prices, including second-hand cars)

<sup>34</sup>Also, Secretary Henry Wallace would assess in 1938 in his annual report: “We need to avoid too much insistence on only first-quality foods. All foods should meet basic health requirements; but thousands of families would rather have grade C food at a low price than grade A food at a high price, and thousands of farmers have grade C food to sell. Our marketing system must efficiently meet the needs of the poor as well as of the rich.” (quoted in Rasmussen, 1939, 154)

bear definite and clear-cut relationships to the economic desires of both dealers and consumers, and must recognize (first) differences in levels of consumer purchasing power; (second) differences in preferences of individuals; and (third) differences in the purposes for which products may be used and the qualities needed for each purpose.” (Rasmussen, 1939, 149) The above considerations lead us to consider the idea that markets may not be enough to the understanding of coordination outcomes once it is recognized that information (or absence of information) about grading is influential on market outcomes.

### **2.3 Toward a cognitive theory of quality: protecting consumers from market failures**

If grades are not used on markets, or if they do not play a role in establishing price differentials, it does not prove that grade specifications are wrong: “It does indicate either that consumers don’t recognize quality (at any rate they don’t reward it by paying a premium to get it) or that retailers base their prices upon factors other than quality, or that our standards of quality differ substantially from those which consumers consider important.” (Hauck, 1936, 399) Here, we open to a quite different view on the use of government intervention through quality standards. The goal is not to help sellers and buyers to share a common language according to quality characteristics that all recognize as being relevant for improving their coordination on markets. It is more ambitious and contains a normative account of quality and of the nature of government intervention. It is contemplated that grading does necessarily contain an educational dimension, and that grading contributes to the formation of preferences instead of just revealing them and making them expressible on markets. We mean here that some authors have pointed out that contrarily to the market-driven coordination point of view, market failures indicate a need to develop grades as a means to repairing the failures of market coordination *and* the causes of those failures, which are possible as an exploitation of consumers cognitive deficiencies. According to Waite, “Moreover, the grades tend to protect consumers from certain obvious abuses arising from the profit making motive of the economic order. For example, there is a tendency for businessmen in a competitive society to secure protection for their sales by building around their product thru [sic] brands or other distinguishing devices semi-monopolistic situations. Grades break down these protective devices by expanding similarity of essential characteristics to a broader group.” (Waite, 1934, 248) This is clearly pointing to a normative role of grades understood as a protecting device to help consumers improve their bargaining power, not merely to improve coordination. There is a counterbalancing effect of grades.

Gilbert Sussman and Saul Richard Gamer, two members of the Agricultural Adjustment Administration, take as a starting point “that the consumer has no practical way of knowing or discovering at present the quality of any food and drug he buys, much less whether any particular brand of a product he purchases is good, bad or indifferent as compared to any other particular brand which he might have chosen.” (Sussman and Gamer, 1935, 578). This fact is well recognized, and consumers are frequently misled / deceived by such a situation, notably since “it has been indisputably established that the price at which a particular article may sell is not a

satisfactory, if any, index to the quality of the product. Nor does the use of brand or trade names supply an adequate guide.” (Sussman and Gamer, 1935, 578). The great number of brands for particular articles forbids rational buying. This view is radically at odds with the starting point of Waugh’s reflections on the quality-price relationship, and thus it is rejecting the market point of view on quality. If markets are to work as coordination devices, it supposes that buyers are helped to make well-informed decisions. Cognitive limits of the consumer are recognized as a basis for producers’ resistance to mandatory grades.

It may be readily admitted that the fact that consumers frequently are not rational in their decisions is a limitation which is encountered in this field. . . .The irrationality of the consumer itself may well be worth studying in connection with determining upon the economic basis of market grades. (Jesness, 1933, 716)

Quality per se is not something given to consumers, not something evident. On the contrary, the grading of goods or the rating of commodities is said to acquaint consumers with the characteristics of a good that the expert deems essential (Waite, 1934). Here we touch to what is probably the most delicate issue from a theoretical and policy point of view. There is clearly the idea that grades, and more specifically any system of rating of consumers’ goods, is influencing the preferences of consumers by constructing their own system of preferences and the way they assess goods, pointing out some characteristics over other characteristics. Waite identifies that producers are usually reluctant to adopt standards for consumer goods. The adoption of grades stems from a necessity to bypass the cognitive limitations of consumers: “Where such grades have been accepted by the industry it has been usually because qualities were indistinguishable by consumers and misrepresentation so rampant that consumers were utterly bewildered and hesitated to purchase with a consequent great decline in sales and individual profits.” (Waite, 1934, 249) Otherwise stated, producers are willing to accept standards when it reduces information asymmetry, which is the cause for a low level of transactions. This analysis does not make clear what comes from pure absence of knowledge on the part of the consumer or from difficulties to cope with too much information. Hence, by lack of government intervention to constrain producers, grade labeling is often permissive (and not compulsory). “But where the market is not demoralized there is strong opposition to the adoption of consumer grades. Here those with a reputation for consistently superior products may secure enhanced prices because of that reputation, and those with shoddy products may secure higher prices than they could with labeling. It is unlikely that many products will find their markets sufficiently demoralized by bad trade practices to accept readily mandatory grades. This has forced us to make grades largely permissive in character. We have had sufficient experience with these permissive grades to demonstrate that in the majority of cases opposition of important trade groups will preclude their widespread adoption. With permissive grades the only hope is to educate consumers to purchase products so labeled, but with the inertia of consumers and determined resistance of a considerable part of the trade practical results are remote.” (Waite, 1934, 249) Anyway, there is consumer’s inertia, and permissive labels are of weak effect on behavior. Clearly, Waite identifies

that there is an opportunity for strengthening rules about standards and labels and that this may allow to reduce the overall exploitation of the consumer's ignorance about qualities: "The participation of the government as a party in these agreements [about codes and marketing between producers in many industries], charges it with the duty of a broad social viewpoint, which includes among other things insistence of protection of consumers from the exploitation which is widespread under competitive system. This opportunity is passing rapidly and it is pathetic that we are failing in the use of it." (Waite, 1934, 249) The interpretation of the need of grades determines also the kind of policy recommendation. To Waite, there is sort of a mix of given consumer's preferences and expert analysis that should be constitutive of the definition of grades:

The grades may specify simply the characteristics which are now judged important with respect to products by consumers themselves as reflected for example in the price they are willing to pay. The grades may specify, however, characteristics which consumers would judge important and for which they would be willing to pay if they were able to distinguish them or were provided with the opportunity. These characteristics may be unassociated with present easily observable external characteristics known to consumers, or may be observable but due to other associated undesirable characteristics from which they have not been separated the consumer may be unable to register a preference. Finally the grades may specify characteristics which are judged important by expert opinion. They may designate qualities which should be important to consumers. Grades in this sense contain an element of propaganda in the direction of consumption in desirable channels, the full force of which we do not know, as yet. Consumers may feel the higher grades more valuable, particularly in the cases where the specifications are not readily distinguishable and in those cases they will probably react with a willingness to pay somewhat higher prices, thus widening the spread between the better and lower qualities. This is a form of the time honored device now used by business men to differentiate their product and sell to consumers at a higher price because the consumer is made to think the product superior and it may be turned to the advantage of consumers by designation by disinterested agencies. The second advantage of consumer grades is that the designation of these qualities may assist early subdivision of the product into groups possessing these characteristics. Early subdivision will facilitate economical handling of the product and will tend to reflect back to producers characteristics desired by consumers. This should lead to higher prices for these types of products possessing these characteristics and a subsequent larger production wherever these qualities are subject to control. This, in turn, should result in greater consumer satisfaction and enhanced incomes to the more effective producers. (Waite, 1934, 250)



### 3 References

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