

Abstract

This essay describes the evolution of the Economics of Poverty. It shows how the leading objectives of its authors changed over the decades. The description is roughly exhaustive from the end of the nineteenth-century to the “rediscovering poverty era” in the 1960s. After that, it concentrates in the fundamental ideas that constitute the existing theoretical framework of the poverty measurement, with an extended comment on the more relevant issues.

Key words: Economic thought, measurement, poverty.

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The Evolution of the Economic Thought about Poverty Measurement

Reviewing the economic literature about poverty since the end of the nineteenth-century, we may find the discussion of theoretical and practical issues as the causes of poverty, the concept of poverty and how to measure poverty.

In Section I, major works written about poverty in the transition from the nineteenth- to the twentieth-century are presented, from Charles Booth to Benjamin Rowntree. In Section II, the rediscovery of poverty era is described and commented and in Section III the key works since 1965 on the poverty measurement are summarized and commented. Some concluding remarks on the evolution of the leading objectives of the authors in the final section try to point out the idea that these objectives varied a lot since the 1960s, being predominantly academic only since that decade.

I. The roots

The author of the very first paper written and published specifically about poverty was Charles Booth. This extraordinary Englishman was born in Liverpool where he attended the Royal Institution School. Being a distinguished student in arithmetic, he would leave school at sixteen to work in a shipping company. At twenty-two he set up in business, becoming in a few years the leader of the partnership with his eldest brother, especially due to the eagerness and vigour that he brought to the business. During those years he built up the foundations of his business methods, which became a good basis to the methodology that he would apply in his approach to social investigation. As a matter of fact, in business as in social investigation, Booth not only had appreciation for rigorous descriptions of the reality in facts and figures, as he also believed that this was essential for success - in business or in the fight against poverty. His social life and friendships – when he was around forty, already living in London - created an environment in which he could discuss the social problems, sometimes vigorously. London, the biggest city in the world at that time, with more than four million inhabitants, was growing fast, as many other cities in England. The lack of rigour that characterized the press reports

about poverty, when this was a growing preoccupation for the English society, took Booth's eye and inspired him to the task of describing rigorously the contemporary social scene at London. Deeply concerned by current social problems, he conquered the public opinion of his time for its large amount of information and run to expand the terms of the debate on the poverty question further than a merely moral understanding of poverty. The fundamental work that he took was an inquiry that he planned, organised and funded, only for the sake of a rigorous and trustable description, from 1886 to 1903, with more than 120,000 households. This inquiry, which final publication would consist in a set of 17 volumes (Charles Booth, 1903), is considered, even nowadays, not only at a scientific level, as also one of the most complete social surveys of London. Consisting in a reflection of the first results of this enquiry (upon the Tower Hamlets District), it was published the first paper about poverty, focused on «the condition and occupations of the people of London» (Charles Booth, 1887). In this paper, Booth defines six classes, including the “poor” and the “very poor”. By “poor” he meant «those who have a fairly regular though bare income, such as 18s. to 21s. per week for a moderate family» and he would define as “very poor” «those who fall below this standard, whether from chronic irregularity of work, sickness, or a large number of young children». Actually, Booth used an income poverty line (that he called «line of poverty») to classify as “the poor” the cohort of families that was under it. As a matter fact, Booth's work is very important to the history of poverty measurement not only due to his pioneering effort to measure poverty, as also to his conviction - put in practice in the study of social conditions, including poverty - that a truly description in facts and figures of a certain situation is important to succeed. Also important is his distinction between poverty and unhappiness, once that it alerts social economists and other social scientists not to treat both as the same.

Booth considered that the contact with real life is important to understand it and to describe it. Once again he put in practice his convictions and he studied social life as close as living periods of several weeks with poor families in their houses. His teaching was put in practice.

Although Booth liked to talk and to exchange letters about social issues with his friends (including Alfred Marshall), he was unique in his way of being simultaneously exhaustive, rigorous and socially sensitive. And he was innovative enough to be considered, for example, the "father" of the pension.

General Francis Amasa Walker, a prominent figure of the second half of the nineteenth-century in the American Economics, would be the author of the first paper about poverty written not for political or merely social motivation, but for academic reasons. He was the first president of the American Economic Association, the first lecturer on Economics at Johns Hopkins, one of the first presidents of the Massachusetts Institute of Technology, president of the American Statistical Association, head of the statistical bureau of the U. S. Treasury, professor at Yale University and he would award the “Walker Medal” to leading Economists for lifetime achievements. His theory of distribution, inspired and developed from the “Ricardian” theory of rent, has come to be known as the “residual theory”.

Though not familiar with much of the newer literature in Economics, General Walker possessed a powerful intellect and was very welcoming to the newer ideas. All through his life, Walker struggled to set up the scientific status of Economics and was a pioneer in using statistical data to illustrate economic arguments. In the last year of his life, his seminal work on the search of the causes of poverty (Francis Walker, 1897) was very interesting, and not only from an economic point of view. In this work, he distinguished poverty from pauperism, explaining the causes of the latter concept. He also criticized the existent explanations for the existence of poverty, from the theological to the socialist, as those from several independent personalities. In an overall critic, he puts in plain words that these explanations – all only-one-cause explanations - were not sufficient to explain poverty, proposing his own explanations for poverty, which are basically four: the hard naturally established conditions of the humankind; a secondary poverty which results from industrialization (as, for example, the division of labour); the existence of the great social and industrial law «Unto every one that hath shall be given, ...but from him that hath not shall be taken away even that which he hath»; and, finally, the carelessness, lack of frugality and bad habits on the part of the working-classes. His final comments go for suggesting that the cure for poverty may come from the treatment of mental and moral disease as well as from a bigger sensibility for popular education.

We cannot assure what exactly moved Walker in writing this article, once that it is difficult to understand if his main objective was to give a pure contribution to the understanding of the causes of poverty or if it was a response to the

temptation of religious, socialists and others to take over Economics for them, contributing this way with one more article in the fighting for the recognition of Economics as a scientific subject. Very likely he condensed the two objectives in one article, as a parallel for other articles written by him in other branches of Economics. Anyway, his “economic reasons” were not justified but with opinion-based arguments, not using a very refined method.

In 1901 two authors brought out contributions about poverty: Dadabhai Naoroji and Benjamin Rowntree. Naoroji wrote a book in which he signalled the beginnings of the Indian Nationalist struggle against the British rule (Dadabhai Naoroji, 1901). He argues that the «drain» of wealth, or the unilateral transfer of resources from India to Britain, was the principal cause of poverty in India, as when Britain, for example, puts the average tax burden in India at twice that of contemporary England, although average income there was fifteen times greater at that point in time.

An Indian Nationalist, Naoroji was professor of Mathematics and Natural Philosophy in India, becoming after that the first non-European member of the British House of Commons for the Liberal Party in the 1890s. He was active in spreading the view that India was too heavily taxed. During the first decade of the twentieth-century he was prominent in several Socialist International Congresses speaking on matters related to colonial exploitation and workers in the industrialized world. Clearly his reasons to write about poverty were merely nationalist and political.

Rowntree was much more influent in the scientific discussion about poverty. Benjamin Rowntree, the third child of Joseph Rowntree, was inspired by his father’s and Charles Booth’s works. Benjamin Rowntree decided to perform his own study into poverty in York. He spent two years on the project and the result was a pioneering survey, the first utterly scientific study of poverty and the first that adopted a definition of poverty (Benjamin Rowntree, 1901).

Rowntree applied a reasonable level of complexity in the derivation of a poverty line, particularly in the estimation of the minimal food requirements for upholding efficiency, on the basis of lately calculated nutritional standards. Such minimal requirements, together with those necessary for the purchase of clothing and rent, were added up to identify a poverty line, so that households whose income level fell below it were considered to be in “primary poverty”, or

in other words, primary poverty was present where the family lacked sufficient earnings to obtain even the minimum necessities.

As Rowntree's data were collected by interviews and the investigators were asked to note down which households appeared to be living in «obvious want and squalor», emerged the concept of “secondary poverty”, associated to the poverty of those who, regardless of having sufficient income to uphold minimal efficiency, appeared to be living in poverty. This meant that families suffering from secondary poverty had earnings that were enough, but were spending some of that income on things that are improvident.

In the face of making a conceptual distinction between primary and secondary poverty, Rowntree maintained that both concepts were of a relative nature. Primary poverty since «the point at which primary passes into secondary poverty is largely a matter of opinion, depending on the standard of well-being that is considered necessary», and secondary poverty as it obviously depended on the standard of lifestyle held satisfactory by the investigators.

Rowntree, who popularised the concept of poverty line, defined it as «a standard of bare subsistence rather than a living». He derived a poverty line as an heuristic device - rather than a normative device prescribing planned patterns of expenditure - to show that, contrary to beliefs held at least since Francis Walker, not only carelessness and vice but also low incomes, accounted for the poverty of the working classes. After Rowntree, poverty would not be a major issue for more than half-century.

II. Rediscovering Poverty

Poverty would come up again to the scientific discussion with Peter Townsend. During the first half of the twentieth-century, and not counting with Rowntree, the scientific production on this issue was very limited. Townsend would create the first paper that is specifically devoted to measuring poverty (Peter Townsend, 1954). The major contribution of this paper is its suggestion of a poverty line. It suggests selecting, from all those households that satisfy nutritional requirements, the quarter of households that do so at the lowest level of income, and to take total average expenditure per household in this group (less some fixed costs), as the poverty line.

Nonetheless, the “rediscovery” of poverty would really begin with a series of American empirical studies in the 1960s.

Harrington’s “The Other America” (Edward Harrington, 1962) would be a first significant book on the issue. Born in St. Louis, Harrington was educated by the Jesuits at St. Louis University High School. In later life he was sensitive to the resemblance between the Thomistic scholasticism in which he was trained and the Marxist scholasticism that he embraced as an adult. He would admit his influences: “I have long thought that my Jesuit education predisposed me to the worst and best of Marx’s thought”. Having graduated from college, he would please his parents spending a year at Yale Law School, which bored him, and a year studying English at the University of Chicago, which he liked, but not enough to hang on for a doctorate. Harrington later claimed that he shed his right-leaning politics at Yale and that his “Damascus Road” conversion to social activism occurred throughout a summer job in St. Louis working for the public school system’s Pupil Welfare Department.

“The Other America”, a moving portrait of the poor in rural and urban America, is not only a simple descriptive book about poverty, but also a critic for what he believed was an implicit policy of hiding poverty in America and for the consequent no importance given to the avoidable distress of the poor: «Clothes make the poor invisible, America has the best-dressed poverty the world has ever known» or «If there is a technological advance without a social advance, there is, almost automatically, an increase in human misery» are examples of sentences that illustrate these Harrington’s ideas.

Two years after “The Other America”, W. Anderson wrote another major work about the poverty in America (Anderson, 1964). In the context of a growing America, his original ideas were to question if growing would necessarily be poor-favourable and the concept of trickle-down effect, which is the dispersion of economic gains from the rich to the poor. In his article, Anderson tries to measure the variations in the strength of the trickle-down effect by connecting economic growth with the rightward movement of a lognormal income distribution. He finds that the poverty reduction effect of growth increases with growth, albeit it should increase at a decreasing rate because of the non-linear tail effects of the distribution of income, what suggests that the poverty reduction effect of high growth may take place partly in the course of inequality reduction effects. In fact his work suggests that economic

growth helps to ease poverty in two ways, as increased growth will enlarge both the number of jobs and the real wage paid to workers. Even though growth first and foremost benefits those in the upper portions of the income distribution, sufficiently robust growth benefit even those in the lower portions. The idea is that a sufficiently large growth rate has a more than proportional effect on the poverty rate.

Anderson used the term “poverty curve” to refer to the curve defining the proportion of families in the United States with incomes below \$3000 as a function of the log of median income for the period 1947-60. His paper is also of interest since it also shows poverty curves for sub-groups of the American population - rural and urban, white and non-white - over this period, indicating how specific sub-groups may not follow the general trend.

Another American empirical work would come up in 1964, but this with a focus on social mobility (Stephan Thernstrom, 1964). This Professor of History at Harvard University created a thorough portrait of working class life in Newburyport from 1850 to 1880, the decisive years in which this old Massachusetts’s town changed into a thriving industrial city.

Thernstrom was aware of the usefulness of data linking individuals across censuses, but lacked the resources to create such data. As a consequence, and supported by census reports, local records and newspapers, he traces the career patterns of hundreds of manual workers and their sons over this period, exploring in detail the differing mobility patterns of native-born and Irish immigrant workmen. His book suggests that when the family strategies function well, the economic security of parents is practically based upon the children’s sacrifice in the form of private taxation on earnings and lost opportunity for human capital accumulation.

III. The concepts of poverty and poverty line

Even though poverty is one of the most recognizable and lasting conditions known to humankind, it is a very complex concept to comprehend.

Some researchers perceive this complexity as an adaptation to the condition of poverty, while others interpret it as a reaction to the strain of being poor.

Definitions are plentiful and may be classified as relating to either lack of income or lower status. Many factors contribute to the concept of poverty, including political, economic, social, and cultural forces. The one that has time after time had the furthest effect on the developing concept is the passage of time, which encompasses all these forces in a very complex way.

The first discussion was about what poverty is. In the very beginning of the discussion, saying that poverty is a concept applicable to individuals, independently of the context, Rowntree not only distinguished implicitly poverty from inequality - which is a confusion that we can see even nowadays – but also affirmed the predominantly absolute nature of poverty, which does not correspond to the main poverty lines calculated nowadays, due to practical reasons.

In 1965, Mollie Orshansky, from the U. S. Division of Research and Statistics, writes a fundamental article in which, besides giving continuation to the American empirical studies of the “rediscovery of poverty era”, she tackles directly the poverty concept and poverty line issues (Mollie Orshansky, 1965).

Orshansky justifies the paper considering that what exists to measure poverty in United States - which is one unique figure used by the Council of Economic Advisors (CEA) - is not sufficient for the task of measuring poverty reasonably. She considers that the figure expressing an amount of cash income to define families living in poverty must vary for age, family size, geographical area and sex.

In another article - published two years before (Orshansky, 1963) - she describes the evolution towards the desirable definition of equivalent incomes at a poverty level for different family types. In this paper, not only this variable poverty line is derived - and the method used is described – as it gives a summary picture of the groups who fell below the line (for 1963 incomes) as well as compares the results with the ones from the cruder measure of the CEA. She reminds some recognized limitations of the paper, such as the analysis of the situation of unrelated individuals and aged persons living in families headed by younger persons, recommending for subsequent works more refined methods, as the measures based on the relationship of income and consumption.

Beginning the article recognizing that «there are still many who must watch America's parade of progress from the sidelines», she situates the task of identifying who is poor in the commitment of the Nation's battle against poverty. Admitting that it cannot be one unique standard to decide who is poor, she considers, however, that it should be possible to assert with confidence how much, on average, is too little.

Orshansky recognizes that it is the purpose of the paper to sketch a profile of poverty based on a particular income standard that makes allowance for the different needs of families with varying numbers of adults and children to support. Although recognizing that the standard is arbitrary, she justifies its reasonability on the fact that it is based on the amount of income remaining after allowance for an adequate diet at minimum cost, illustrating it with real numbers. After listing others in need out of the count above, she assesses the aggregate poverty gap in relative and absolute terms.

After a brief look for the poverty profile, Orshansky defines the poverty lines used, based on available standards for food adequacy, choosing representative family types, calculating an income-food expenditure relationship and making a farm-no farm adjustment. These procedures resulted in cut-off points that would range from \$1580 for a single person under age 65 to \$5090 for a family averaging eight members. Then, she evaluates how adequate is the standard and analyse the consequences of the variation of the reference point.

Orshansky (and Rowntree) made use of what would later be called the absolute poverty line approach, once that the standard is not determined by the social context. Sometimes – again by Orshansky (1969) - poverty is even presented as a value judgement: «poverty, like beauty, lies in the eye of the beholder».

With Peter Townsend, in the 1970s, the relative approach - in opposition to the absolutist one - would take a substantial impact. His definition of poverty breaks with the anterior ones: «individuals and families are in poverty whose resources, over time, fall seriously short of the resources commanded by the average individual or family in the community in which they live» (Townsend, 1973). But his major contribution would come 6 years later, with his Survey (Townsend, 1979). In the Introduction of this remarkable book, Townsend discusses the previous definitions of poverty and selected evidence about poverty and inequality. He argues that the definitions expressed in terms of

some absolute level of minimum needs, though being historically the most influential, are inappropriate and misleading, on the basis that people's needs are conditioned by the society in which they live and to which they belong.

Poverty was basically absent on the World Bank's documents until the late 1960's. Its President in September 1973, McNamara, at the annual general meetings in Nairobi, articulated the concept of absolute poverty. In March 1975 he implicitly defined it as «a condition of life so degrading as to insult human dignity». In June of the same year, the World Bank published the book "The Assault on World Poverty" (World Bank, 1975), which analyses the causes of poverty, examines ways in which it can be alleviated, and outlines programs through which the Bank plans to help.

The more scientific approach of poverty would not be very significant in the World Bank until the 1990s. In 1990, distinguishing the concepts of inequality and poverty, the World Bank (1990) remembers that «Minimum inequality may coexist with maximum poverty».

Amartya Sen has several important articles and books on the Economics of Poverty. His first fundamental articles are about the measurement of poverty. In one of them, "Issues in the Measurement of Poverty" (Sen, 1979), it is argued that the measurement of poverty should be seen primarily as a descriptive exercise, instead of an ethical one as it is often. This article is also important in many other aspects of the measurement. It establishes equilibrium between the absolute and relative approaches, considering that both enter the concept of poverty; distinguishes between identification of the poor (by the direct or the income method) and aggregation of the poverty characteristics into one overall measure; recognizes difficulties in the conversion of families into equivalent adults; the violation of elementary characteristics by the standard measures of poverty, such as the head-count and the income gap ratio; finally shows intuitively how the "axiomatization" of the aggregation exercise leads to a poverty measure that is a function of the head-count ratio, the income-gap ratio and the Gini coefficient, and how the axioms used for deriving this poverty measure can be varied.

Another Sen's fundamental article on this subject is "Poor, Relatively Speaking" (Sen, 1983). In this article he argues favourably to the absolutist approach, even though the emerging unanimity in favour of taking the relative one. He outlines the case for using an absolute approach to poverty to the notion

of capability, differentiating it from the notions of commodities and characteristics. Thus, an absolute approach in the space of capabilities translates into a relative approach in the space of commodities, resources and incomes in ahead of some important capabilities. Anyway, taking an absolutist view of poverty must not be confused with being indifferent to inequality as such.

Alternatively to the relative and, above all, absolute approaches, the subjective poverty line approach came up in the 1970s. It puts the perception of income adequacy of the population in focus. Thus the approach does not ask the respondents whether or not they consider themselves to be poor.

Different survey questions have been used to find the respondent's opinion on income adequacy. For example, in an early work, Robert Kilpatrick (1973) analysed time-series data from the United States showing answers to the question "What is the smallest amount of money a family of four (husband, wife, and two children) needs each week to get along in this community?" Another example is Dubnoff (1985), which reported a study in which respondents were presented with descriptions of stimulus families possessing various levels of income. The respondents were asked to judge the standard of living for each such family according to a scale where one of the end points was "poor". Analysing data obtained in Boston in 1983, the author found, for example, that income of the respondent affected the assessment of income adequacy.

While there are several ways of formulating questions for arriving at an assessment of income adequacy, the subjective poverty line approach requires the respondents to evaluate the situation of their own households, not a hypothetical household. The attractiveness of this approach is that it is easier for respondents to evaluate their own households rather than households having different attributes than their own.

In the 1990s a new approach of the poverty measurement starts to be considered as an alternative: the fuzzy approach. This innovation in the study of poverty measurement consists in the application of some concepts developed in the Fuzzy Set Theory, a mathematical theory developed since the 1960s, mainly by Zadeh and Stachowicz. The fundamental novelty of this theory consists on the admittance that there are sets in which there are not only elements that verify the dichotomy "it belongs or it does not belong" to the set. This theory became a fundamental tool for the creation of an alternative to the poverty measurement

that should surpass the critics aimed to the traditional approach. The usually income-based analyses raised important problems: bias - due to the under-evaluation of the answers – and subjectivity – due to the complexity in the specification of the concept of income. Another fact criticised in the traditional approach is that the multidimensionality of poverty is not tackled, once that only one variable – usually income or consumption expenditure – is used. Although the poverty line is understood by many authors as a range, there is still the distinction between poverty and not poverty across a simple line, being this a third criticized fact, once that there should be a more gradual transition.

The first structured proposal of the fuzzy approach arose in Italy (Cerioli and Zani, 1990), motivated by the purpose of surpass the disadvantages of the traditional approach. It proposes that the degree of belonging of an individual to the set of poor individuals be defined as a function that generate values between 0 and 1 (0 for those who do not belong at all to the set of poor individuals, 1 for those who are totally included in the set, and the intermediate values for those who belong partially). A specification example is given by the computation of the proposed function based on a survey for an Italian region and, subsequently, a new index of poverty measurement is proposed, which is presented as a generalization of the traditional indices for the measurement of the poverty.

A few years afterwards, a totally fuzzy and relative (TFR) approach was proposed by Chelli and Lemmi (1995). This approach has the advantage of being a very helpful instrument in the analysis of poverty in a multidimensional perspective, avoiding arbitrary values for the thresholds. However, TFR indices raise aggregation, comparison and interpretation problems, once that its values have not an inherent meaning. Another disadvantage is the arbitrariness of the weighting used in the aggregation of the information supplied by the diverse indicators.

The Martin Ravallion's (1996) work about measuring and modelling poverty may be considered the last essential one on the Economics of Poverty of the twentieth-century. The paper is an extended comment on some practices in poverty analysis using survey data and a critical description of the state of the art in the end of the century. Although his many comments go mainly to some practices in the analysis of poverty in the studies that use data, he does not ignore the fundamental issues, discussing some options taken by the investigators that influence the path to a better comprehension and explanation

of the poverty phenomena. The measurement issues are commented while some arguments are presented to support several methodological proposals - as the arguments for and against the discontinuous variation registered by some measures around the poverty line and the implications of that discontinuity for the policy against poverty – as well as while conceptual and empirical problems raised by the traditional approach are presented – as the sensitivity to the distribution of the poverty measures, the consequences of the poverty lines for the policy (namely the perverse consequences of the relative poverty lines) - and still while some own proposals - as the favourable argument for social indicators and the presentation of the necessary ingredients for a credible approach to poverty measurement. His comments go still far away, until the modelling of poverty. Ravallion discusses what can be learned from a regression of poverty, the links between income poverty and human development, poverty dynamics and the economic geography of poverty. Data-related issues are also commented, with a critic description of what is done currently and several proposals of what should be done for a better performance, and how errors should be dealt with. Conceptual and empirical problems raised by the so called monetary approach should be struggled with complementary measures that grasp what is not grasped (non market goods and heterogeneous distribution inside the households are some examples). Another fundamental conclusion is that the exit from poverty may be very dependent on individual characteristics, the household and the environment (community).

IV. Concluding Remarks

In the beginning, the leading objectives of the authors that studied poverty varied from one to another. Booth had social concerns, Walker wanted to defend Economics as a science, Naoroji had political and nationalist objectives, and Rowntree had scientific concerns.

With the faster growing of the 1950s and 1960s a little over the world, but especially in the United States, the rediscovering poverty era came up when the great intra-national inequalities became obvious. The socio-political confrontation that existed in the United States heavily influenced (qualitatively and quantitatively) the work in this subject in those decades. Harrington, for example, was a combative social democrat (or socialist?) who wanted to show the hidden poverty in America, or, on the other side, Orshansky who represented

the U. S. Social Security position showing that there was work being done to fight against poverty.

Townsend and Sen would be the fundamental authors who would influence the Economics of Poverty for decades, leading the beginning of the incontestable dominance of the academia in the subject.

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