



## Poverty-To Measure or Not To Measure: Going Beyond Logical Positivism

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### Abstract

Since 20<sup>th</sup> century Logical positivism has firmly engraved the importance of logic and empirical quantification of everything in our minds. There is a deep-set illusion of objectivity in all the so-called 'scientific' method used especially in social sciences. Poverty is no different. Being subjective and multidimensional phenomena, poverty does not have a universally agreed unanimous definition. This has led to variety of measurement tools. Each tool comes up with its own results and recommendations which in turn lead to different policies and poverty alleviation strategies. Since the past decade there is recognition of the fact that uni-dimensional measures of poverty fail to capture the true nature and scope of poverty (despite the fact that they are still most frequently used measures globally). However, no one dares to question the need and purpose of poverty measurement in the first place. Furthermore, ideological debate about measurement of such a multidimensional construct for rankings and comparisons at global level has also not been questioned. Current study is an effort to critically review current poverty measures from this aspect and to explore answers to the above mentioned concerns. This article covers ideological debate and empirical concerns of existing poverty measures.

**Keywords:** Poverty, Poverty measurement, Logical positivism, scientific method, critical analysis

### I. IDEOLOGICAL DEBATE

Poverty is a subjective construct with multidimensional nature (Alkire, 2007). Defining and measuring poverty due to subjectivity involved is something which leads to multiple questions. Why do we measure poverty? Where did this idea come from? Do we really need to quantify poverty? Why existing measures and no other? Can we really rank countries on the basis of poverty and human development? Current section deals with possible answers to all these questions. This ideological debate will provide the theoretical base for empirical debate.

#### 1.1: Emergence of Logical Positivism and Social Sciences

Logical positivism is a philosophy of quantification of everything and only accepting 'measurable' as scientific knowledge. It is an effort of making science a religion for whole humanity. Zaman (2019) in his article 'Emergence of logical positivism' has discussed the evolution of this idea and its impacts. He discusses that this craze of quantifying everything, even the immeasurable is the root cause of many evils in the world today. He warns that as this perspective is non-European, it may sound different but if you try to understand it open-heartedly, it will lead us back to the values which we lost in the process of becoming 'scientific'. As Europeans turned to logical positivism they moved away from all empirically 'unverifiables' like, God, angels, afterlife etc. which made them reject religion as a superstition. This however is not the complete story. Actually Europeans lost their faith due to multiple historical events which made their transition to secularism possible. Zaman (2019) refers to three major events in this regard; Columbus concurring America (availability of land and resources), Conquest of Spain (access to centuries of tirelessly accumulated knowledge of Muslim scholars leading to European Enlightenment) and 1492 purchase of papacy by Rodrigo Borgia Tuchman (1984). This third reason was probably the strongest in turning Europeans away from heart and towards 'head-only' philosophy of logical positivism.

Due to this shift away from religion Europeans lost answers to many important questions about life and its purpose. Science was the next fill in the blanks in this regard. Slowly and steadily science became the

new religion followed by the Europeans. By 20<sup>th</sup> century they had conquered more than half of the world. Their materialistic gains put them and rest of the world in awe of 'logical positivism'. However, this extreme shift to all knowledge based on only logical quantification lead to rejection of intuition and emotion (major strengths of human beings). It raised objective approach to a much higher pedestal than subjective approach. This in turn harmed humans by leaving them blind to most important questions that they face every day. Eventually all western education became meaningless to learning process about reality of life and external world.

This is the stage, where the birth of logical positivism took place. It was decided under this philosophy that all knowledge should be observable and logical. Axiomatic approach to knowledge should be used as axioms are observable and certain. This would have not been so harmful if unobservables were not excluded from the realm of knowledge. In an effort to make everything measureable, logical positivists replaced unobservables with observables. Zaman (2013) writes that this emergence of logical positivism help achieve two intentional goals of European intellectuals, rejection of religion as pivot of life philosophy and worship of science on the vacated pedestal.

### **1.2: Birth of the 'Poverty beast' - an ideological debate**

Poverty has existed since humans have, however, it became a socio-economic issue fairly recently. Before seventeenth century Europe popularly believed in Biblical point of view which states that "It is easier for a camel to go through the eye of a needle, than for a rich man to enter the kingdom of God." It is not difficult to see the sixteenth century hold of Christianity on the thoughts and actions of all classes of people in Europe. The renunciation of the world, embodied in vows of poverty in the priesthood, was widely admired and held to be the ideal. The numerous teachings of the Bible emphasizing other-worldly goals were embodied in the thought and discussions of both the intellectuals and the commoners Twaney (1926). He has described the historical process in which Europeans went from believing in the Biblical "Love of money is the root of all evil," to Shaw's "Lack of money is the root of all evil." One of the prominent admittance of this transformation comes from (Keynes, 1932) where he himself guides towards pursuit of wealth via greed and avarice (admitting them to be lowly characteristics) for some 100 years before humans would solve their economic problems and will eventually recover from this moral degradation.

To understand the emergence of poverty as a social issue we have to first understand Eugenics. Eugenics is a philosophy of racial supremacy of Whites and Elites. This philosophy attributes this superiority to genetics. In early 20<sup>th</sup> century it was taught as a subject in universities. Many prominent names from logical positivists like Sir Francis Galton, Sir Karl Pearson, Sir Ronald Fisher were staunch followers of this philosophy who then created statistics to support their views. Eugenics have two extreme views in order to deal with the inferior human race 'the commoners'; it was either extermination (negative Eugenics), or increasing their own population (positive Eugenics) (Graver and Graver, 1991). As Eugenics believed that inferior human race was inferior genetically, there was no hope for nurturing them to bring them up to the level of superior race. Therefore, they took the path of specialization, assigning tasks to inferiors up their capabilities and utilizing them for the benefits of superiors (Vizcarrondo, 2014).

This racist attitude of the rich, extreme inequality and exploitation eventually lead to French revolution (Knowles, 1919). That is when for the first time a considerable debate on policies to help poor survive started. This was to avoid any such revolution in England. At that time came Malthus with his pessimistic theories of population growth (Bowen, 1879). His ideas although proved wrong, nevertheless, did a major damage. We are still not free from Malthusianism. Due to these Malthusian arguments, poor were blamed for their poverty and thus policies shifted from compassion to punishment. It was believed that genetically the poor breed more than the rich and poverty is therefore a genetic condition. If poor were to be helped they would breed even faster so in order to curtail their growth, they should be left in crowded places with limited food and rampant disease (Zaman, 2018).

Another historical transformation came to Europe during 18<sup>th</sup> century with Industrial revolution. Here again it was in the interest of the rich to use poor for their industries as laborers who would work for money and remain tied to their agenda (Polanyi, 1944). Even the education system was developed in such a way as to support specialization and compartmentalized awareness limited to a particular set of skills

required by the poor to become effective human capital instead of aware human beings (Zaman, 2018). Thus social changes linked with industrial revolution came with inbuilt poverty progression.

## II. EMPIRICAL CONCERNS

This section covers the empirical concerns that arise as a result of ideological debates in previous section and also by addressing some important questions. What numbers really mean? Can a single number represent a complex multidimensional construct like poverty? If we do need to measure poverty, is there any better way to do it under the developing theoretical lens from ideological and empirical debates? Current section deals with the myth of objectivity in measuring subjective constructs like poverty. Furthermore, it deals with the empirical concern of why a multidimensional phenomenon like poverty should and could not be summarized in the form of single digit index.

### 2.1: Measurement- the hidden assumption of objectivity

As discussed earlier logical positivism lead statisticians to limit their expertise to sterile world of theory and numbers which had nothing to do with the real world, history and origin of concepts being measured. This article argues that without asking questions like; why are we measuring what we are measuring? How are we measuring it? What do these numbers mean? etc. we will not be able to analyze relationships between external observations and internal reality. Neither will this measurement represent the real construct. If the measures are not representative of real world, they become meaningless. Such calculations may appear very beautiful and complex on papers but they fail to remedy human problems. The story of poverty measurement and alleviation is no different.

Economic theory is full of such examples where 'economic constructs' actually do not measure what they claim to measure. For example Welfare, Preference and Choice are three distinct concepts. Welfare refers to what is good for us, e.g. (walking to work), Preference refers to what we like e.g. (car), and Choice refers to what we ultimately choose e.g. (bike). Despite being distinct concepts, out of these three only choice is observable. Therefore, following logical positivism economists equate all three. So in conventional economic sense Choice represents Welfare, which it definitely is not (see Capability approach, reference Sen (1976, 77) and Empowerment-as-a-process approach by reference (Kabeer, 1998).

Impact of this equating welfare to preference to choice is that economists have become blind to the real concept of welfare. This leads to confusion and economists have started believing in 'rationality' (everyone knows what is best for him/herself). So 'Freedom' has become the best choice. On the contrary behavioral economics has found that rationality does not exist and people often make bad choices harming themselves (Camerer, 2003; Thorbecke, 2005) therefore 'Nudge' theory is better alternative of 'freedom' theory (Zaman, 2018).

Another point that this paper is trying to make is the effect of these numbers and indices on real world. Whenever a number is measured or an index constructed it leads to policy making. These policies have implications on the lives of real human beings (Zaman, 2018). For example, when the quality of teaching faculty started to be measured by their publications in impact factor journals, it led to a massive increase in Fraud Journals, which publish articles for money and use many gimmicks to get impact factors. Whenever unobservables are measured by observables, this shift of focus from reality to number happens.

Another example of trying to measure an unobservable complex multidimensional construct as a single observable is 'IQ' as a measure of human intelligence (Gould, 1981). Gould (1981) in his book MISMEASURE of MAN, talks about the problem of "Reification" – replacing the abstract by concrete. Even absurd ways of measuring intelligence (like shape of skull and brain size) have been taken seriously because of logical positivist approach to replace the concealed unobservables by measurable indices (Zaman (2018).

Goodhart's Law given by (Goodhart, 1975) and rephrased by (Strathern, 1997) states that "When a measure becomes a target, it ceases to be a good measure." That means we try to measure unobservable by the highly correlated observables for example measuring poverty by income level (less than \$1.9/ day) as used by UN to define sustainable development goals. When countries come to know income as observable is being used as a measure, it becomes a target to be achieved and the attention that should have been focused on removing multidimensional deprivations of human population is shifted on policies like conditional cash transfer programs, again based on rationality approach (everyone will make best use of provided income) an assumption which has failed in real life (Thorbecke, 2005; Sen, 1982).

Our policy focus on observable targets of poverty, instead of poverty itself, leads to wrong poverty alleviation strategies. Since 1800's poverty as a social issue in under debate and multiple definitions, measures and tools of poverty are created, hundreds of different poverty alleviation strategies have been implemented globally. On paper poverty reduction may have been shown as well but still effective poverty reduction is still a dream. No poverty being the first and foremost goal of SDG's is a proof of this fact. Now the question to ask is; what are we doing wrong? What could be done differently in order to correctly measure poverty? Answer to this question is not a straight forward one. But one point is clear, unless and until measurement issue of poverty is resolved, poverty alleviation would remain a dream.

## **2.2: Multidimensional poverty measurement via single number indices: is it logical?**

As in our article we are trying to resolve the mis-measurement issues in poverty we first need to understand that poverty is a multidimensional construct and uni-dimensional measures fail to measure real life poverty (for detailed discussion in this regard see Sen 1976; Sen 1977; Alkire, 2007; Alkire and Foster 2007; Alkire and Seth, 2008). In this article therefore, we will discuss multidimensional poverty indices, measurement and ranking. Before we criticize particular multidimensional poverty index we first need to understand that building multidimensional poverty indices and then use it to compare countries, areas, or people is not justified. To support this claim, we would refer to Gladwell, (2011) who explains the meaning of comparing numbers in the context of college rankings. The goal of the article is to show that all rankings are deceptive. We will use his logic to explain why single number multidimensional poverty indices fail to represent poverty and why they cannot be used for comparisons at global level.

First point that Gladwell, (2011) makes in his article is about why diverse characteristics cannot be summed up. He uses the example of car ranking and shows that if three very different cars are compared on the basis of equally diverse characteristics like price, look and comfort, creating a single number index for ranking is only possible if weights are assigned to each characteristic. When we change the weights, the ranking also changes. Therefore, if we do not know the purpose of the ranking then it is a futile activity which is nothing but deception. He says that even though the Car and Driver magazine shows a clear winner in their rankings, the winning car is NOT the best in any clear sense of the word. He further insists that asking this question of which is the best by comparing such diverse cars is illogical in itself. He therefore states that ranking is only possible if only one attribute is under comparison. For example if the cars are to be ranked for comfort then a true ranking is possible (for detailed explanation see Zaman (2020).

If ranking is not possible for comparison of the cars on the basis of only three characteristics, how can we compare millions of humans on the basis of countless numbers of dimensions out of which most are unobservables. How much a person earns is not sufficient to know if he is poor or not. That is because income poverty is only one very limited aspect of poverty, as income is only means to different ends and not an end in itself. For understanding poverty we also need to know where and how he spends his income. Because if he does not make rational choices then despite earning income he and his dependent family will be deprived of basic human needs Thorbecke (2005). What is his relative position in his society? How long he is earning at this level? Which dimensions of life is he deprived in? What is his level of deprivation in each dimension? How important and necessary is each dimension to this person? In addition to these much more information is required to make a correct judgment about a person's poverty, which still has many value-based immeasurable aspects attached to it (Alkire, 2007).

At any rate poverty rankings even created by most advanced multidimensional poverty measure created at Oxford University OPHI center by reference (Alkire, 2007) and used by UNDP (2011) since 2011, is arbitrary at best. The rankings are created as a combination of subjective weights and objective dimensions of poverty. Weights assigned to different dimensions are fixed across the globe, when every country may actually give different weight to different dimensions depending upon their culture, demographic conditions, economic status, social customs and much more (Lamont and Paul, 2019). If the weights are changed across countries to represent their true situation then the measure does not remain comparable and if for the sake of comparison weights are held constant, measure fails to represent the real situation of each country. Another condition violated by this multidimensional poverty ranking, which according to Gladwell (2011) is necessary for comparison via ranking, is for countries to be similar to each other on the dimensions being ranked. As global comparison is done and ranking is done for all the countries of the world, it is obvious that not all the countries are same in dimensions under consideration. This difference makes the ranking null and void. Furthermore the problem of sensitivity to weights remains exactly the same as in a heterogeneous group. A very important question to ask here is, why are we comparing the whole world and such diverse countries on the basis of equally diverse dimensions in which they are not similar at all? Zaman, (2020) while discussing Gladwell, (2011) states that failure to answer to this question leads the ranking to failure. If purpose of ranking is known then the weights will specified accordingly. It will actually make that particular ranking for that particular purpose representative

### III. CONCLUSIONS

Some important conclusions can be drawn from the above discussion. Current poverty definitions, measures based on these definitions and underlying thinking ideology is flawed. These poverty measures are arbitrary, narrow and misleading which do more harm than good. There are two major concerns about poverty measurement which are inbuilt into the very definitions of poverty due to poverty being a subjective construct with multidimensional nature. Due to subjectivity none of the poverty measures qualify for global comparative indices. Secondly due to multidimensional nature and social, geographical and other variations poverty can never be measured truly in absolute sense. In addition to that looking closely at all the existing definitions and measures of poverty, instead of measuring poverty with respect to causes or dimensions and depth of deprivations in different dimensions, in current conventional sense where directly or indirectly the basic goal becomes classification of humans into poor and not poor. This classification leads to poverty alleviation measures which rely on beneficiary selection and then funds transfers to individual beneficiary. As poverty has many unobservable aspects, trying to quantify it is actually not a very good idea. The best that can be done in this regard is to measure deprivations and then map them and try to alleviate these deprivations by spending on direct targets, instead of indirect measures. This sort of measures will always be subjective in nature due to variation in cultures, social norms, values and geographical concerns; therefore, global ranking in this respect is not valid. Instead of Eurocentric approach, every country should measure and intervene in deprivations according to their own situation. Localized perspective of solving problems as diverse as poverty needs in zoomed in focus and detailed exploration of each dimension where deprivations exist.

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