EDITORIAL

A couple of good reasons to translate papers of the Italian statistical tradition

Giovanni Maria Giorgi

Bringing to the attention of the scientific community the translation of papers of the so-called Italian statistical tradition, dating from the beginning of the last century might seem, at first glance, an operation out of date and not in step with the new times. However, at a closer examination, it turns out that some of these works, in particular those concerning certain aspects of variability and (income) inequality, are the subject of new and extensive researches (see, e.g., Yitzhaki and Schechtman [17]). In addition, the use of refined methodological tools, that were unthinkable a century ago, allows new extensions, interpretations and applications that maintain their relevance.

Just think of the topicality of which the Gini index [5], published in 1914, still enjoys notwithstanding according to some authors, including Atkinson [2], it would have to be abandoned, together with other conventional indices, because it does not have certain requirements. These criticisms did not achieve the desired objective because, for example, they are conducted mainly on utilitarian ground whose limitations are well known, as pointed out by Sen [14,15]. Moreover, the introduction of the utility function has created a bit of confusion because, as claimed by Arnold [1], it has simply replaced a problem with another one, that is the "choice of a measure of inequality or a ranking of inequality" with the "choice of a utility function". Even the sharp distinction between objective and normative measures is not completely justified (see, e.g., Giorgi [6]).

Despite the Gini index has given rise to a long and intense debate and is still the center of attention, I discovered—in the occasion of the publication in 2005 of the translation of Gini's paper [5] in *Metron*—that the most of those who had written on the subject had never read the original article in which the Italian scholar proposed the concentration ratio (also known as Gini index or Gini coefficient) and he also highlighted the links with the Lorenz curve and the mean difference.

This, in our opinion, is the first and most important reason for translating papers which, although published at the beginning of the last century, are still of great interest. In fact, it facilitates access to bibliographic sources not easily available and also allows those who

G. M. Giorgi (✉)
Department of Statistical Sciences, Sapienza University, Rome, Italy
e-mail: giovanni.giorgi@uniroma1.it

do not speak Italian to become aware of certain results. In this way misunderstandings and justifications of various kinds are avoided. Another good reason for these translations is to prevent discovery of results already in the literature, allowing scientists to use more profitably their investigative skills.

Anyway, even improving bibliographic information, it is necessary that scholars, especially the younger ones, realize that human knowledge is not only what is on the web. Sometimes, in order to deep researches, it is necessary getting hands dirty with the dust of archives and libraries that are not fully digitized. From personal experience I know that this heavy work is not easy and that it takes a lot of time but it can yield fruitful results.

With regard to the scientific production on the measurement of (economic) inequality and variability, the non-Italians authors who, on several occasions, but especially in their extensive and in-depth monographs, were able to capture, investigate and adequately analyze contributions of Italian statisticians appeared in the literature especially in the first half of the last century, we should remember, among others, Piesch [12], Nygard and Sandström [11], Arnold [1], Kleiber and Kotz [8].

For the reasons just outlined, for the great interest in the scientific community since the publication of the translation of Gini's seminal article [5], and above all for the encouragement from many colleagues I thought appropriate, just back at the helm of *Metron*, to continue the path began in 2005.

Thanks to the kind availability and collaboration of two young researchers, dr. Stefania Gubbiotti and dr. Pierpaolo Brutti to whom I extend my heartfelt thanks, we publish the translation of an article by Gaetano Pietra [13] published in 1915. This paper is closely related to the one by Gini [5] and, as far as I know, Pietra expresses, for the first time in the literature, the Lorenz curve (*LC*) in terms of inverse of the cumulative distribution function, also known as graduation function among Italian statisticians of that time (see, e.g., Kendall and Buckland [7]).

Some results on the Lorenz curve and the Gini index in the continuous case were then derived independently also by Gastwith [4] in 1971. He has the great credit to have called the attention of the international scientific community on the *LC* analytic representation thus giving a new and concrete stimulus to the studies on the *LC* and Gini inequality index.

Pietra, in his 1915 paper, also shows the relations existing between the mean difference, the simple mean deviations from the arithmetic mean and from the median, and their geometrical interpretation. In this context, Mosler and Muliere [10] point out that the index $S_\mu/2\mu$ ($S_A/2A$ in the original paper), was rediscovered by a number of economists, among them Schutz [16], Kuznets [9], Eltetö and Frigyes [3].

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