

Rethinking the industrial district: 35 years later

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ABSTRACT: The year 2014 marked a double anniversary: the 35th and 25th anniversaries of the publication of two seminal papers of Giacomo Becattini on the industrial district. The first paper (Becattini, 1979) conceptualizes the industrial district as a «unit of investigation», while the second (Becattini, 1989) conceptualizes the industrial district as a «model of production». Between the two papers there is a mutual dependence. The industrial district as a «model of production» deprived of the industrial district as a «unit of investigation» loses its originality as a way of interpreting economic change and becomes merely «one type of a cluster». This paper deals with the relationship between district and cluster, then also between the industrial district as a singular theoretical construct and the many industrial districts described by empirical investigations, and concludes with some remarks on the topicality of the industrial district.

JEL Classification: B2; N9; R10.

Keywords: industrial district; cluster; regional economics; regional studies; economic history.

Repensar el distrito industrial: 35 años después

RESUMEN: El año 2014 marcó un doble aniversario: los del 35.º y 25.º año de la publicación de dos trabajos seminales de Giacomo Becattini sobre el distrito industrial. El primer artículo (Becattini, 1979) conceptualiza el distrito industrial como una «unidad de investigación», mientras que el segundo (Becattini, 1989) conceptualiza el distrito industrial como un «modelo de producción». Entre los dos artículos hay una dependencia mutua. El distrito industrial como «modelo de producción» privado del distrito industrial como «unidad de investigación» pierde su originalidad como una forma de interpretar el cambio económico y se convierte simplemente en «un tipo de clúster». Este artículo trata la relación entre el distrito y el clúster, y a continuación entre el distrito industrial como un constructo teórico único y los muchos distritos industriales como resultados de

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investigaciones empíricas, y concluye con algunas observaciones sobre la actualidad del distrito industrial.

Clasificación JEL: B2; N9; R10.

Palabras clave: distrito industrial; clúster; economía regional; estudios regionales; historia económica.

1. Introduction

The year 2014 marked the 35th anniversary of what scholars of industrial districts consider the birth of the notion of the industrial district, that is the publication of the seminal paper of Giacomo Becattini «Dal settore industriale al distretto industriale. Alcune considerazioni sull'unità di indagine dell'economia industriale» [From the industrial «sector» to industrial «district». Some remarks on the unit of investigation of industrial economics] (Becattini, 1979). But the year 2014 is also the 25th anniversary of another seminal paper of Becattini «Il distretto industriale marshalliano come concetto socio-economico» [The Marshallian industrial district as a socio-economic notion] (Becattini, 1989). This second paper is considered the starting point for empirical research on industrial districts. Its international popularity among academics and policy-makers has to some extent overshadowed the first paper. However, without the «unit of investigation» introduced in the first paper no meaningful empirical research on the industrial district as a «model of production» can be performed.

The background of the industrial district concept is nestled in the system of thought of Alfred Marshall (1842-1924). However, the *Principles of Economics* (Marshall, 1890) and *Industry and Trade* (Marshall, 1919), as well as *The Economics of Industry* (Marshall and Marshall, 1879), do not provide a definition of industrial district neither as a «unit of investigation» nor as a «socio-economic notion». These books contain many of the elements for a conceptualization of the industrial district, but the industrial district definition remained, so to speak, «in search of an author» until Giacomo Becattini proposed a new interpretation of Marshall's work (Becattini, 1962 and 1975a).

This interpretation made it possible to recognize the potentiality of notions and thoughts spread throughout Marshall's work for defining a new theoretical approach to industrial change. The industrial district as an economic approach conceptualized by Becattini is rooted to a large extent in this interpretation.

The founding papers of the industrial district concept are the two aforementioned Becattini papers. Both papers were written originally in Italian, and so their international popularity only came after their English translation in two books: *Small Firms and Industrial Districts in Italy* (Goodman, Bamford and Saynor, 1989), and *Industrial Districts and Inter-Firm Co-operation in Italy* (Pyke, Becattini and Sengenberger, 1990). In Spain, the appearance of the first paper occurred in 1986 in the *Revista Econòmica de Catalunya*.

The first paper, where the industrial district was conceptualized as a «unit of investigation» of industrial economics, has gained less popularity than the second, where the industrial district was conceptualized as a «model of production». This has been for two main reasons.

The first reason is the conservatism of an academia which has opposed the heterodox idea of replacing the category of industry technologically defined with the industrial district's definition of the category of industry according to the sense of belonging of the human agents of production (employers and workers) to the place where production actually occurs.

Conservative industrial and regional economists have above all been united by the idea that the presence of a given industry in a given place, at a given time, has to be explained through the principles of industrial location (Weber, 1909). But for district economists what matters are not the causes leading to the location of industries, but the causes leading to an industry staying long in a given place (Marshall, 1920), even after the efficacy of initial location causes have died down.

The second reason is the attention given to the industrial district as a «model of production» after the crisis of the Fordist system of production. The industrial district as a model of production observed in Italy, and mapped in 1981, represented an empirical alternative (historically founded), even before its description as a theoretical possibility (a textbook case).

While the identification of the industrial district as a «model of production» was the turning point for the carrying out of applied research on industrial districts, it was the industrial district as a «unit of investigation» which was the precondition for conceptualizing the industrial district as a model of production: the place of living (the Marshallian «economic nation») as the unit of investigation for understanding the economic change that the integration between a «community of people» and a «population of firms», supported by a given «system of values», engenders through an industrial organization which fosters the accumulation, free circulation, sharing and increase of knowledge among entrepreneurs and workers (the Marshallian «external economies»). So, the industrial district as a unit of investigation and the industrial district as a model of production are embedded in one another.

This embedding can be seen in Becattini's 1979 paper where he introduces two Marshallian lines of research: one on «external economies» (Becattini, 1979, p. 15) and the other on «economic nations» (Becattini, 1979, p. 17). Without Becattini's original amalgamation of these two lines of research, and their intellectual reprocessing, supported by the observation of facts (including works on the economic development of Tuscany and also some areas in the region such as Prato: Becattini, 1966, 1969, 1975, 1978 and 1986), in my view the concept of industrial district would never have been born.

This paper is organized as follows. After this Introduction, section 2 addresses the Marshallian industrial district; section 3 is dedicated to the potential hybridization of the concepts of industrial district and cluster; section 4 addresses the relationship

between the industrial district as a theoretical construct (the one) and the (many) industrial district identified by empirical investigations; section 5 concludes the paper with some remarks on the topicality of the industrial district.

2. The Marshallian industrial district

Since Giacomo Becattini introduced to the literature the notion of «Marshallian industrial district» (Becattini, 1979 and 1989) a huge number of academic and non-academic works have discussed the concept and its empirical implementation. However it cannot be asserted that this large discussion has resulted in improvements to the concept as it was originally formulated.

Rather, it can be asserted that scholars, mainly English-speaking, referred to one of the sources of the concept, the *Principles of Economics* of Alfred Marshall (1890), in order to bypass the Italian conceptualization of industrial district. The aim was to retrieve first-hand references by citing the most well-known passages of Marshall's work where they believed the definition of industrial district was located. An example of such a passage could be found in paragraphs 2 and 3 of Book IV, Ch. X, of the eighth edition of the *Principles* (Marshall, 1920).

Unfortunately, in that passage the term «industrial district» has a purely descriptive meaning.

This is not to say that the ideas located in Book IV of the *Principles* are not relevant to the conceptualization of the industrial district; quite the contrary. I share the position of scholars, and especially of those who focus their attention on topics of industrial organization, who identify Book IV of the *Principles* as being the core of Marshallian teaching (Raffaelli, 1998)¹.

I simply wish to argue that these ideas are only some of the Marshallian concepts relevant to the definition of the «Marshallian industrial district» as conceptualized by Becattini.

The clumsy attempt to go back to the source has diverted attention away from using the industrial district concept as a means of interpreting economic change (Becattini, 2000) towards its use as a means of interpreting industrial location.

Where the «standard economist» sees reasons for industrial agglomeration (such as the presence of labour pooling, intermediate inputs, and technological spillovers), the «district economist» sees reasons for economic change. The way firms belonging to various sectors relate to one another fosters the accumulation of knowledge and

¹ This reading contrasts with the more traditional interpretation according to which «the core of Marshall's thought is made up of Book V of the *Principles*, where are formulated all the Marshallian theoretical innovations that can be inserted in the strand of marginalism» (Raffaelli, 1998, pp. 144-145). For example, Walter Isard, the founder of Regional Science, who wrote in an age in which this latter interpretation dominated, used Book V as the basis for his harsh critique of Marshall, blaming him for putting the importance of time before that of space, and thereby hindering the spatial evolution of economics (Isard, 1956). On this matter, see Sforzi and Boix (2015).

skills and this serves to glue an industry to a place long after the causes that led to its formation (mainly local forces according to the district approach) have disappeared.

Once the economic advantages of Marshallian localized industries had been identified as determinants of the location of industries (the «agglomerative forces» of Alfred Weber (1909)) it followed that Marshallian external economies should become equivalent to Weberian economies of agglomeration, and that finally the industrial district would be set in the framework of classical location theory.

In this context, it is not surprising the industrial district notion is considered a fuzzy concept (Markusen, 2003), or that an industrial district is treated as an industrial cluster (Porter, 1998).

One of the most cited academic articles on industrial districts: «Sticky Places in Slippery Space: A Typology of Industrial Districts» (Markusen, 1996) has notably contributed to the generation of this misconception.

In her paper, Ann Markusen argues that there are five types of industrial districts, or «sticky places».

Three of these types are wholly alien to the industrial district concept, even to the looser versions of the concept to be found in the secondary literature on the district. These three types are: «hub-and-spoke», «satellite industrial platforms», and «state anchored» industrial districts.

«The hub and spoke district, where regional structure revolves around one or several major corporations in one or few industries; the satellite industrial platform, comprised chiefly of branch plants of absent multinational corporations [...]; and the state-centered district, a more eclectic category, where a major government tenant anchors the regional economy (a capital city, key military or research facility, public corporation)» (Markusen, 1996, p. 296).

I have nothing to say about the fact that these three types of industrial organization are present in economic reality and that they define the socio-economy of given places, except to point out that «industrial district» is an inappropriate term for defining these models of production. Used in this way, the industrial district idea takes on a purely descriptive meaning, while in the proper district literature the term «industrial district» is associated with a specific theoretical approach.

As for the remaining two types of industrial districts, the «Marshallian industrial district» and the «Italianate variant», the «variant» simply cannot exist because neither does the «original».

There is only one type of industrial district conceptualized as a «Marshallian industrial district» and that is the one that resulted from the original re-reading of the Marshallian system, his social philosophy, and his scientific method, started in Italy in the early 1960s by Giacomo Becattini (Becattini, 1962).

The reasons for the «Marshallian» qualification of the term industrial district as conceptualized from Italian experience have been set out in my foreword to the Italian collection of writings of Becattini on the industrial district (Sforzi, 2000, 21n).

In discussing the introduction to the book *Mercato e forze locali* (Becattini, 1987a) Becattini and I had agreed on the need to qualify the industrial district as

«Marshallian», so that it was unequivocal that the district was not simply a descriptive device for a particular industrial phenomenology, the system of small businesses which even then was rampant in Italy, but was a proposal for a theoretical framework which identified in the «Marshallian external economies» the analytical tool.

For understanding Italian development since World War II the concept of industrial district acted as a «interpretative breakthrough» in that it provided theoretical foundations to understanding places as phenomena where production actually occurs, freeing them from their traditional function of being geographical coordinates or areas for statistical reporting, and in any case being territorial units lacking explanatory significance.

The industrial districts that the district interpretation of Italian development identified in economic reality were not simply replicas of the nineteenth century English industrial districts on which Marshall had worked: the reference to districts being «Marshallian» related to a particular analytical tool, not to an empirical identification. An industrial district can be said to be a «Marshallian industrial district» if it is so identified by empirical research using methodological criteria derived from the Marshallian analytical tool.

The statement that «we can also distinguish two forms of district: one real Marshallian district and another closer to the Italian experience of this post-war period» (Becattini and Rullani, 1993, p. 33) must be interpreted in the sense that among the industrial districts of the current Italian debate there are some districts that have been defined as such by using the Marshall-Becattini analytical tool, while others simply represent a semantic upgrading of a traditional agglomeration of firms.

In her argument against the scholars of the «new industrial district» (NID) literature, Markusen underestimates the importance of Becattini's paper in the book edited by Goodman and Bamford (1989) on industrial districts in Italy, a book which she lists in her reference section. This underestimation is reflected in the fact that although Becattini's paper is not included in the references, other papers in the book are mentioned.

It is clear Markusen was unable to grasp the importance of the mutual dependence between the definition of the unit of investigation and the district model of production—in other words, that the district is a place-based model, because at the core of the model there are people, not firms. Maybe not even the fact she had clearly read—as it is listed in the references—my paper on the geography of industrial districts in Italy, in which the issue of considering the proper unit of investigation is presented as the first step for the empirical detection of district communities, did the matter become clear to her.

3. Some disputes over the district

As the industrial district concept spread and became popular in various academic circles, including among economists, sociologists, historians, and management theorists, disputes about various aspects of it arose.

Among the minor disputes which occurred were those focussed on: the mono-sectoral or multi-sectoral nature of the industrial pattern of the district; its degree of self-containment and external openness; matters related to issues of specialization or differentiation of district production; questions of inter-firm co-operation and competition; the ability of district firms to exploit local knowledge while simultaneously exploring new knowledge available outside the district; and evaluations of the district's potential for enhancing local knowledge.

These have only been minor disputes that have often derived from a misinterpretation, or an indirect knowledge, of original sources on industrial districts. Therefore they could be easily resolved by reference to the passages in those sources where the issues are discussed.

However, there have also been some major disputes.

In my opinion, the most challenging dispute has concerned the relationship between «district» and «cluster».

Despite the claims of Porter and Ketels (2009) the concepts of the industrial district and the cluster do not share similar theoretical roots. Moreover, it is not true that «the concept of IDs arose when researchers applied Marshall's original work on agglomeration to understanding the success of flexible (or "neo-Fordist") production systems in the 1980s» (Porter and Ketels, 2009).

What is common to the industrial district concept proposed by Giacomo Becattini and the cluster concept proposed by Michael Porter is that both reject the idea of industry as an intermediate entity between a single production process and the economic system as a whole, or the national economy.

The two scholars have both rejected this approach when, in Becattini's case, explaining the competitive advantage of the Italian region of Tuscany, in its economic development from the end of World War II to the early 1970s (Becattini, 1969 and 1975b), and, in Porter's case, when discussing, more generally, the competitive advantage of nations (Porter, 1980).

Becattini proposed to replace the concept of «industry», traditionally defined according to the criterion of the production technology used, with the concept of «industrial district», defined according to the sense of belonging of the human agents of production (employers and workers) to the place where production actually occurs.

This approach does not distinguish industries «along the separator lines of the production technology» (*i. e.*, according to the standard statistical classification) (Becattini, 1987b, p. 29). Rather, it shifts the focus onto the organization of the production process, that is to say the way firms belonging to industries that are technologically different co-operate in a place (the district) to actualize production.

However, what is being referred to is not a mere jumble of industries, since it is possible to distinguish between a main industry and auxiliary industries, and between activities focused on manufacturing and those dedicated to business services. The result is a place that is «technologically multi-sectoral», engaged in production that is differentiated in terms of the range of various goods produced by the main industry;

and also by the different products produced by the firms belonging to the auxiliary industries on behalf of firms of the main industry, but which are sold not only to local firms but also outside the local market.

In his research Becattini engaged in theoretical thinking about the concept of industry, leading him to critically examine the positions of various economists on the subject (Becattini, 1962). For this purpose, he identified the different ways industry could be classified, including, for example, the satisfaction of needs, technological similarity, and the sense of belonging. This process was then the prerequisite to the next stage of his theoretical thinking, namely that focused on the problem of what should be the «unit of investigation» of economic research (Becattini, 1979).

Over the span of time 1962-1979 Becattini completed two studies on the economic development of Tuscany (Becattini, 1969 and 1975b), and also a new interpretation of Marshall's work (Becattini, 1975a). His approach was to use the method of investigation: abstract-concrete-abstract, whereby «theoretical thinking» is combined with the «observation of facts» in an iterative process of investigation of economic, or, rather, social reality.

In the context of Italian economic development since the end of World War II, the so-called «glorious thirty» years, the economic development of Tuscany represented an anomaly.

The regions of Northern Italy followed a path of industrial development in keeping with the classic model of industrialization, characterized by: growth of firm size, vertically integrated production processes, the development of internal economies of scale, and the occurrence of mass production for mass consumption.

Tuscany, instead, followed a different path to industrialization. This occurred «without vertical integration» (Becattini, 1978), and was characterized as being dominated by the proliferation of small firms. These small firms were located at different phases of the same production process. Overall, the firms participated in a production process that was differentiated by the types of goods produced, by the various parts of goods made, and by a division into phases of production. The whole was held together by flows of place-based external economies. The firms produced small batches of customized goods designed to satisfy the desire by demanding customers for variety and social distinction.

The economic performance and the social well-being produced by the Tuscan model of development contested the accepted notion that there was «one best way» of organizing production in general, or during the «glorious thirty» in particular. The model of «district industrialization» that had been observed in Tuscany, on the one hand served to rebut the view of economic development as a linear process: first, craft production; then vertically integrated production in one factory; finally, flexible specialization as a result of processes of vertical disintegration of the factory (the so-called «post-Fordist» system of production, with which industrial districts have been associated); while on the other hand it provided the economic background to the interpretation of the Third Italy (Bagnasco, 1977).

This system of differentiated production and inter-firm specialization —where firms are mainly small-sized because they are «firms of phase»— occurred in industries which allowed such a development to occur, namely: personal and household goods, and related and supporting industries (*e. g.*, chemicals, plastics, and specialized machinery).

The way the manufacturers look at the market is «the salient distinction between differentiated production and mass production» (Jacobs, 1969, p. 238).

In the words of Jane Jacobs, «A mass-production manufacturer seeks common denominators in the market; he exploits similar needs. A differentiated-production manufacturer depends on differences to be found in the market. He deliberately exploits the fact that people have different tastes in styles, fabrics and colors, differing clothing budgets and, as individuals, reasons for needing diverse clothing (*e. g.*, garments for going to parties, lounging, sports, work, city activities, country activities). The two different approaches to the market give rise to other distinctions between mass production and differentiated production. Mass production churns out far greater numbers of identical items than does differentiated production. Much more design and development work goes into differentiated production than into mass production, in proportion to the volume of output» (Jacobs, 1965, pp. 238-239)².

The study of the economic development of Tuscany provided the elements for defining the industrial district as a path to industrialization, focused on Marshallian external economies, which was an alternative to the classical path of industrial development (or «Fordism», according to the term widely used to summarize such a path), based on internal economies.

The Tuscan model of development paved the way for conceiving the industrial district as a «socio-economic concept» (Becattini, 1989)³.

While Becattini proposed to replace the category of «industry» with that of «industrial district» —a socioeconomic territorial unit where the values of a local community support the industrial organization of a population of firms characterized by differentiated production, as well as by a specialization in specific production phases— Michael Porter proposed to replace the category of «industry» with «cluster of industries». As a first step, he described the cluster as being composed of «industries connected through vertical (buyer/supplier) and horizontal (common customers, technology, distribution channels, etc.) relationships» (Porter, 1990, pp. 73 and 149). This he proposed after having said that «the basic unit of analysis for understanding national advantage is the industry» (Porter, 1990, p. 73).

Then Porter updated his definition by introducing the idea of geographical proximity, the role of which he had already emphasized in *The Competitive Advantage of*

² On the relationship with the market for small-batch production compared to mass production, see also Woodward (1965).

³ The study of the economic development of Tuscany was the main line of empirical research that contributed to a defining of the district as a socio-economic concept, but an important role was also played by two other lines of empirical research: research on industrial localization in the province of Lucca (Tuscany), and a twenty-year study of the economic development of Prato (Becattini, 1966 and 1997).

Nations when talking about geographical concentration (Porter, 1990, pp. 154-159): «Clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (for example, universities, standards agencies, and trade associations) in particular fields that compete but also cooperate» (Porter, 1998, pp. 197-198).

There is good reason to believe that this «geographical turn» in the conceptualization of the cluster—which occurred between 1990 (the year of publication of *The Competitive Advantage of Nations*) and 1998 (the year of publication of *On Competition*)—was influenced by the international spread of the industrial district concept.

In *The Competitive Advantage of Nations* (Porter, 1990) there are no references to the works of Becattini, but in Chapter 7 of *On competition*, which explores the concept of clusters (Porter, 1998, pp. 197-287), there are references to Becattini's article «The Marshallian industrial district as a socio-economic notion» (Pyke, Becattini and Sengenberger, 1990, pp. 37-51), and also to the book *Mercato e forze locali: il distretto industriale* (Becattini, 1987).

Maybe it was the discovery of the Marshallian industrial district that led Porter to enlist as an intellectual antecedent to cluster theory Alfred Marshall, who, says Porter, «included a fascinating chapter on the externalities of specialized industries locations in his *Principles of Economics*» (Porter, 1998, p. 206). And so he concludes that among other studies focused «on geographic concentration of companies operating in particular fields, which can be seen as special cases of clusters» there are «Italian-style industrial districts of small and medium-sized firms dominating a local economy [...] in some types of industries» (p. 206).

The identification of Alfred Marshall as the historical and intellectual antecedent both of the cluster and of the district has led scholars of management to hybridize the two concepts. A consequence is that such scholars glean knowledge on the genesis and evolution of local economies equally from the literatures on industrial districts and clusters (Belussi, 2015; Hervás, 2015).

There is nothing wrong with this hybridization, except that the unit of analysis should not be a mere geographical concentration of industries, but a place defined by the relationships between the people who live there and the economic activities in which they engage, both as entrepreneurs and workers. But this is still not enough. Study of the evolution of such a place of living should include not only economic changes but also social ones.

The success or decline of a given local economy, at a given time, may depend on changes in a local population's system of values—leading, for example, to a loss of entrepreneurial spirit—rather than on, say, competitive pressure from other local economies in domestic or international markets.

To neglect the changes affecting people (the «community of people») and to think about only changes affecting industries (the «population of firms») means imparting an economic curvature to a district/cluster which is a socio-economic entity by definition.

The creation of a kind of hybrid concept drawn from both the ideas of industrial district and cluster results in scholars only utilizing a part of the two types of concepts' meanings. Scholars should be aware of this theoretical limit, and should make this explicit in the preliminary remarks of any empirical study. Then, they should also clarify that the conclusions reached at the end of a study are partial, and that an explanation of the causes of change of a given district or cluster which are merely economic might even be misleading.

After all, a decent academic paper always concludes by indicating the limits of a study albeit that attempts to remove or overcome these limits rarely follows in subsequent works. An interdisciplinary perspective, such as characterizes that held by people who draw on an integrated concept of district and cluster, is one that is difficult to pursue in the academic field, especially when this way of approaching study of economic phenomena harms the scholars who practice it.

At this point an unavoidable question arises: What about people in the notion of the district/cluster?

According to the aforementioned definitions of the cluster (Porter, 1990 and 1998), it is apparent that people (the local community) is the missing component, unlike in the case of the definition of the industrial district⁴.

The hybridization of the two concepts is a worthwhile initiative if it leads to a mutual enrichment: understanding the role of people, and their system of values, for the cluster perspective; understanding the role of associated institutions (for example, universities), and their support for increasing knowledge, for the district perspective.

A partial hybridization that leads to a disregard of the local community would remove from the district one of its basic specificities, reducing it to merely a form of agglomeration of small and medium-sized firms operating in a specific range of light manufacturing industries. Ultimately, the industrial district would be reduced to «one type of a cluster» (Porter and Ketels, 2009, p. 181), and therefore the initiative of hybridization would fail.

⁴ The current definition of cluster is that provided by Porter in 1998, as reported in Chapter 14 of the *Handbook on Industrial Districts* (Porter and Ketels, 2009, p. 173; Becattini, Bellandi and De Propris, 2009). However, there are other definitions. According to *The Cluster Policies Whitebook* (Andersson *et al.*, 2004) there are subtle distinctions between the concepts of «cluster», and «industrial cluster». There is also a definition provided by Michael Enright, the scholar who «served as the overall project coordinator» of the work later published as *The Competitive Advantage of Nations* (Porter, 1990, p. xvi), which is as follows: «A “localized cluster” or “regional cluster” (Enright, 1992 and 1993) is an industrial cluster in which member firms are in close geographic proximity to each other. A more inclusive definition is that regional clusters are geographic agglomerations of firms in the same or closely related industries» (Andersson *et al.*, 2004, p. 215). The *Whitebook* also gives a definition of the industrial district which although it does not coincide with the canonical definition, it nevertheless grabs the meaning and highlights the difference with the above definitions of cluster: «Industrial districts are concentrations of firms involved in interdependent production processes, often in the same industry or industry segment, that are embedded in the local community and delimited by daily travel to work distances» (Andersson *et al.*, 2004, p. 214).

4. The district between the one and the many

The «Marshallian industrial district» conceptualized by Giacomo Becattini has been used by historians as a conceptual framework for re-reading the presence of industrial districts at different ages of industrializing Europe, including the pre-industrial period (Daumas, Lamard and Tissot, 2007; Guenzi, 2009).

Until Becattini gave the subject theoretical status, the presence of industrial districts passed unnoticed, or they had not been considered important because the district was seen as a «weak» productive model (Colli, 2009), obscured by the dominant model of the different ages.

Maybe people's memories have forgotten that even in the 1970s the «Third Italy», where some of the industrial districts occurred, was defined as a «peripheral economy», the «central» one being the «First Italy», namely an economy composed of big companies, large-scale production and capital-intensive industries (Bagnasco, 1977).

Interest in industrial districts changed after the onset of the crisis of mass production and the vertically integrated large company (in a word, the crisis of Fordism). Afterwards, the districts, offering a model of industrialization appropriate to a high wage industrialized economy such as Italy, became seen as a viable way out from Fordism.

In the words of Frank Pyke and Werner Sengenberger (1990, p. 1): «Whilst economies all over the world in late 1970s and 1980s set into recession and stagnation, frequently accompanied by serious deteriorations in labour and social conditions, rising unemployment, and insecurity, a few localities stood out as exhibiting a remarkable resilience and even growth. They were engaged in a variety of industries, and included not only advanced sectors but also more traditional, labour intensive ones, and thereby posed a challenge to those who have argued that such economic activities can no longer succeed in high wage industrialized countries. [...] Many of these [localities] were said to have sufficient similarities in their mode of economic operation to permit them to be categorized under a generic heading: “Industrial Districts”. [...] Whilst the validity of other areas in other countries to be called districts might sometimes be contested, the eligibility of localities in Italy is undisputed»⁵.

Academics and policy-makers began to take seriously the industrial districts and their policy implications, including the question of their replicability.

Among historians «It is now accepted the idea that the ID [...] is the result of a long and enduring historical process, in many cases dating back to the age before the first industrial revolution» (Colli, 2009, p. 59).

Over the long run of history the industrial districts have emerged, grown, declined, re-emerged, and above all changed in different European countries, adapt-

⁵ The book *Industrial districts and inter-firm co-operation in Italy* was a product of research carried out on the subject since 1987 under the auspices of the «New Industrial Organisation» programme of the International Institute for Labour Studies (IILS) of Geneva. If the book *Mercato e forze locali* popularized the industrial district concept in Italy (Becattini, 1987a), the IILS book played the same role in the rest of the world. Its translation in Italian (1991) greatly contributed to bringing the social sustainability of industrial districts to the attention of the public and policy-makers.

ing each time to socio-economic and institutional changes (including in respect of technology, politics and policies, social customs, and the rise of new industrialized countries) to which sometimes they have in part themselves contributed.

It is difficult to say how many «generations of districts» have followed one another from the age before the first industrial revolution to today. Historians who have studied specific industrial districts in different European countries, such as England, France, Germany, and Italy, have differed in the time frames they have covered (Fontana, 1997; Sabbatucci Severini, 2001; Guenzi, 2014). A remarkable collection of studies on *Les territoires de l'industrie en Europe* [The territories of industry in Europe] (Daumas, Lamard and Tissot, 2007) indicates a relevant time frame to be the whole period of European industrialization (1750-2000). Therefore, the issue of how many generations of districts have occurred remains an open question.

In my opinion, without an actual observation of facts through a series of case studies (carried out through archive research or by a careful scrutiny of the relevant literature), and/or the provision of other reliable information collected through an appropriate methodology (such as in the way industrial districts are identified and statistical data collected), any attempt to assess the number of generations of industrial districts must be arbitrary (Bellandi and De Propris, 2015)⁶.

The industrial districts detected in Italy (Becattini, 1990; Sforzi, 1990) were gradually recognized to also exist in other European countries, either historically (Judet, 2007) or currently (Ganne, 2000; Boix and Galletto, 2004; De Propris, 2009) —although there have been historians who have claimed that the districts are «the product of a singular and therefore unrepeatabe history»: Italy's industrialization (Zeitlin, 1992, p. 279)⁷.

The identification of districts in other countries, beyond Italy, means that the districts have formed and changed in different socio-economic and political-institutional contexts at different times, assuming different specific forms (the «many» of facts), but they are explained through the same concept (the «one» of theory).

I do not wish to give the impression that I'm saying that while the «district-facts» may change the «district-theory» must be fixed.

In industrial districts, changes take different paths and are affected by different factors, at a given time, within an institutional space. The institutional space in which districts are embedded includes supranational, national, and regional institutions,

⁶ In Italy, for some years there have existed active «observatories on industrial districts» (e. g., the National Observatory Italian Districts, supported by the Federation of Italian Districts, and the District Monitor of Intesa-San Paolo, supported by the namesake bank). They claim to provide information on the new frontiers of change in industrial districts. The collected data are derived from surveys applied to a list of districts defined by criteria of membership to the association that produces the report (the Observatory), or to other unknown districts, and the data is confidential (the Monitor). In light of all that, it is hard to give credibility to the measurements of district changes provided by these institutions.

⁷ Outside Europe, of note is the case of Providence (USA) investigated by Francesca Carnevali in a remarkable paper where she compares Providence and Birmingham (UK), two jewellery making districts, in respect of issues of knowledge, trust, and cooperation (Carnevali, 2007). Also, in the late 2000s, the district was used as a key-concept for interpreting the evolution of «craft villages» in Vietnam (Nguyen, 2009).

their relationships and reciprocal conditionings, and their power for designing policies which directly or indirectly are able to influence district performance.

Saying the above is not to forget the importance of the economic space, that is the varieties of markets in which districts operate, including the range and quality of goods they produce and needs they fulfil, and the competition they face.

An analysis of the determinants of district change should address processes such as: the progressive division of labour of the district's main production activity; the formation of local phase-markets; the influence of formal and informal institutions (ranging from business associations to norms); the integrating of internal and external knowledge, that is the way in which district firms are able, or not, to simultaneously exploit existing local knowledge while exploring the new opportunities offered by external knowledge (which is called organizational ambidexterity); the formation of versatile agents who can interconnect the different internal specializations within the district with the external markets; the building or dissolution of trust relationships and a sense of belonging; and the existence of social mobility and formation of entrepreneurship (Becattini, 1998).

In order to produce a synthesis of such processes at work it is necessary to make factual observations of a number of specific districts (grouped by country or region, because there are national and regional paths of district change, see Sforzi and Lagsagni, 2014). Research and analysis should be carried out both in the field and at the desk, making use of any relevant official statistics. Preferably, field and desk research should be practised as an iterative process between observation and theory, and should include the making of comparisons between countries or regions. This circular iterative process of theory-observation-theory could lead to the updating of the concept of the industrial district.

On the other hand, the synthetic analysis could lead one to conclude that some districts have left behind their earlier «district form» and that they now correspond to a different socio-economic model, with the implication that calling them industrial districts would be stretching the concept.

In the economic literature there have been identified other forms of socio-economic organization of production or local development models into which such «former districts» could be assimilated. An example of a different model is François Perroux's concept of growth pole (Perroux, 1955). Industrial districts might change into a different model when, for example, district changes, among other shifts, increase the number of firms taking a financial form, or maybe result in enterprises which grow to a size which is «out of scale» (Becattini, 1989)⁸.

⁸ District changes could also take different paths. Some industrial districts can decline and eventually disappear: these might include, for example, industrial districts located in marginal regions that have not been able to grow by seizing opportunities offered by globalization because of a lack of infrastructure or appropriate policies; industrial districts that have been affected by the off-shoring of firms belonging to their main industry, resulting in a situation where the previous social conditions supporting the local accumulation of skills and entrepreneurship are irretrievably lost, thereby preventing district revitalization.

So far, amongst the studies on industrial districts there has not occurred the circular process theory-facts-theory that would justify a «real change» of the district concept. Rather, there has been a broadening of the district concept «through the wider notion of Localized Production System (LPS)» (Courlet, 2006, p. 15). However, «In these further enlargements of the field of research, the industrial district loses its theoretical rigor, particularly as regards its economic homogeneity and the socio-cultural characteristics on which is founded» (Courlet, 2006, p. 20).

Finally, we should point out that the observation of facts should be carefully undertaken through the lens of district theory in order to avert a situation where a «revised» concept of the industrial district is nothing but a mere generalization of the facts.

5. Some final remarks

The dissemination and propagation of the industrial district concept have required a continuity of application in terms of both theoretical analysis and empirical research, involving the crossing of disciplinary boundaries (as happens for all groundbreaking ideas), resulting in 2009 with the publication of a handbook on the subject (Becattini, Bellandi and De Propris, 2009).

Academics who want to study economic change through analysis at the territorial level, whatever the discipline to which they belong, use the industrial district as a benchmark. Their purposes can range from investigating a specific local business community, to analyzing regional change, to addressing issues of local development.

It is true that in case studies where the object of analysis has been the geographical concentration of industries, the concept of industrial district has been associated with other concepts such as cluster and local production system. But this reference to industrial districts in such contexts does not lessen its significance. Rather, it is proof that these broad concepts have failed to remove the industrial district from its place as one of the key-concepts of economic research (Bellandi and Caloffi, 2014; Blim and Goffi, 2014; Dei Ottati, 2014; López-Estornell, Tomás-Miquel and Expósito-Langa, 2014; Madruga-Torres, 2014; Basile, Donati and Pittiglio, 2015; De Pablo Valenciano and Uribe Toril, 2015; Ferragina and Mazzotta, 2015; Miramontes Carballada and Alonso Logroño, 2015; Pradhan and Das, 2015; Toccaceli, 2015).

Substantive support for the consolidation of the industrial district both as an object of study and as a tool of industrial policy has come from mapping. The mapping has highlighted two aspects: *a*) that there is a possibility to identify industrial districts in the social reality of a country, not only of a region, through a quantitative approach that is consistent with theoretical assumptions and which is based on replicable criteria —as has been shown first for Italy, then Spain, and later Great Britain; *b*) that industrial districts are not an unrepeatable phenomenon associated with a specific stage of Italian industrialization, but rather their presence in the Italian national economy is a continuing structural feature, providing thereby an opportunity to observe their continuity and change (Sforzi, 1987, 1990, 2007 and 2009; Brusco and Paba,

1997; Sforzi and Lorenzini, 2002; Istat, 2006; Boix and Galletto, 2004; Boix, 2009; De Propris, 2009; Boix *et al.*, 2015).

In respect of the matter of public policies to support the competitiveness of specific industrial districts, or to foster a national competitive advantage by leveraging the growth of industrial districts, we can see that the enthusiasm of the 1990s and the first decade of this century have suffered a setback.

I do not feel that the cause of this loss of thrust in industrial district policies lies in the Eurozone crisis, which has served to amend the agenda of priorities of governments. Rather, I think it should possibly be associated with the dominant neo-liberal leanings that deny the necessity of an industrial policy. However, there do not yet exist reliable studies that provide documentary evidence to support this feeling.

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