

Economic Segmentation and Networks of Power: The Topicality of Taylor and Thrift Theory

Segmentación Económica Y Redes De Poder: La Actualidad De La Teoría Propuesta Por Taylor Y Thrift

Segmentação Econômica E Redes De Poder: A Atualidade Da Teoria De Taylor E Thrift

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Abstract

This text takes up assumptions of economic segmentation and networks of power theory by Michael Taylor and Nigel Thrift in the early 1980's in order to provide theoretical framework to account for industrial change in the space. Contrary to structuralist and descriptive aspects which at that time were the features of Industrial Geography studies, the approach to segmentation and networks of power has been part of the corporate geography work or geography of corporations, whose core concern was to restore business organisations as central economic change agents. In the course of the text, we have outlined the key features, the theoretical-methodological assumptions and the constraints of this theoretical approach. Whereas the proposed segmentation and networks of power has some problems - omissions in discussing the State and capital-labour disputes, statistical innovation, determinist segmentation, etc. - their assumptions support understanding the diversity of business on the scale and scope of their operations and their integration into a wide and complex network of unequal power relations.

Keywords: Economic segmentation, networks of power, corporations, small businesses.

Resumen

Este texto retoma los supuestos de la teoría de la segmentación económica y las redes de poder desarrolladas a principios de la década de 1980, cuyo objetivo principal era proporcionar un marco teórico para explicar los cambios industriales en el espacio. Contrariamente a los aspectos estructuralistas y descriptivos que caracterizaban los estudios en Geografía Industrial en ese momento, el enfoque de segmentación y redes de poder se insertó en el conjunto de trabajos de geografía corporativa o geografía de corporaciones, cuya preocupación central era restablecer las organizaciones empresariales como agentes centrales del cambio económico. A lo largo del texto, destacamos las principales características, las suposiciones teórico-metodológicas y

las debilidades de este enfoque. Si bien la propuesta de segmentación y redes de poder presenta algunos problemas (ausencias a la discusión sobre el Estado y conflictos capital-trabajo, innovación estática, segmentación determinista etc.), sus supuestos apoyan la comprensión de la diversidad de las empresas en cuanto a la escala y alcance de sus operaciones y en cuanto su inserción en una vasta y compleja red de relaciones desiguales de poder.

Palabras clave: Segmentación económica, redes de poder, corporaciones, pequeñas empresas

Resumo

Este texto retoma os pressupostos da teoria de segmentação econômica e redes de poder proposta por Michael Taylor e Nigel Thrift, no início dos anos 1980, com o objetivo de proporcionar um arcabouço teórico para explicar as mudanças industriais no espaço. Ao contrário das vertentes estruturalistas e descritivas que à época caracterizavam os estudos na Geografia Industrial, a abordagem da segmentação e redes de poder se inseriu no conjunto de trabalhos de geografia corporativa ou geografia das corporações, cuja preocupação central consistia em restabelecer as organizações empresariais como agentes centrais de mudança econômica. Ao longo do texto, esboçamos as principais características, os pressupostos teórico-metodológicos e os óbices dessa abordagem teórica. Embora a proposta de segmentação e redes de poder apresente alguns problemas (ausências da discussão sobre o Estado e os conflitos capital-trabalho, inovação estática, segmentação determinista etc.), seus pressupostos apóiam na compreensão da diversidade das empresas quanto à escala e escopo de suas operações e à inserção delas numa vasta e complexa rede de relações de poder desiguais.

Palavras-chave: Segmentação econômica, redes de poder, corporações, pequenas empresas.

Introduction

Our aim with this work is to present the main grounds of the theory of economic segmentation and networks of power by Michael Taylor and Nigel Thrift in the early 1980's, with a view to unroll the trends and spatial shapes of the power relations between economic organizations at the stage of monopoly and global capitalism. While our analysis is based on a set of 1980s texts, the thoughts also bring elements for us to think about the current relevance of the theory as part of Economic Geography studies. Michael Taylor is, at present, Emeritus Professor of Human Geography in the Institute of Geography, Earth Sciences and Environment at the University of Birmingham, England, where he runs Geographical, Regional Economic and Regional Development Research. As for Nigel Thrift, he has worked at universities of Warwick and Oxford, has been awarded several academic prizes and is Emeritus Professor at the University of Bristol, England. His researches are about international finance, cities and political life, un-representational theory, affective politics etc.

The scrutiny of segmentation and networks of power theory calls for its insertion in the context of economic geography development. This discipline field has been marked with a fruitful discussion on location dynamics of economic activities encompassing the debate on the location factors, decision-making by agents since the mid-20th century, and most recently, the complexity of productive systems (TAYLOR, 1984; PEREIRA JR, SANTOS, 2019). Much of the work done has placed a great deal of

focus on inflows i.e., input-output, in decision-making - limited rationale - or in general proceedings on capital, paying little attention to concept and definition, establishing the limits and elucidation of cases operating in and around companies' environment (TAYLOR, 1985; SANTOS, 2020).

This is the context in which the Geography of Corporations aspect¹ troubled by, among other things, the explanation of spatial logic which governs the behaviour of economic organisations forming the productive systems, ensuing spatial configurations, the division of labour and spatial interactions. All work under corporate geography label had exhibited, as a background, a primary purpose of inserting economic organisations as central change agents and not as mere cogs in macroeconomic processes, by restoring some degree of arbitrariness for such agents at the helm of general laws of capital reproduction².

Apart from this introduction, the text also contains another four parts considering references. Here, we present the main features of the theory of segmentation and networks of power, by tapping into the fragments and the distinct sections. Then, we outline the principles of the theory and its compatibility as regards the method, and its impact within Geography. After that, we raise a number of issues of this theoretical perspective. In part four, we exploit the timeliness of the segmentation and networks of power theory. Finally, A list of the references used is given at the end.

Main features of theory

The work of Michael Taylor and Nigel Thrift scrutinised here are part of an effort at understanding industrial changes in space at a time when economic geography was marked by the stress on input-output flows, for example, examining decision-making decisions (limited rationale) or the search for elucidation of general capital cases. Because they believe that all three approaches were treating the firm as a crystallization of atomic efforts (TAYLOR, 1984, 1985; SANTOS, 2020), the authors suggest integration or mediation among the existing abstract, empirical and fragmented sources of approach taking as a starting point the firm's research.

To this theoretical context, we may add the historical moment from developed countries, wrapped to a productive restructuring process, complexification of production systems, deepening of divisions in productive structure, internationalization circuits of capital (productive and cash capital), financialization etc. These procedures, under the auspices of a monopolistic and global capitalism, engineer deeper economic segmentation amongst capitals and their fractions, imposing several barriers to the reading of the productive structure under a dichotomous bias from large organisations

¹ For a deeper insight, we suggest the work of Dicken (2013), detailing the development and key challenges of corporate geography studies.

² Markusen (2005) picks up, most recently, this discussion on the need for some degree of will of economic agents in the Marxist political economy.

and small enterprises, making an integrating reading of capitals and their diversity of performance urgent.

While they address the complexity of economic targeting during the monopoly and global capitalist stage, responding to spatial trends and shapes of power relations inter economic organisations in developed countries, Michael Taylor and Nigel Thrift read the process of segmentation as immanent to the capital accumulation dynamics, thereby recognising that the segmentation standards are amended during periods of capitalist accumulation and restructuring crises. In this sense, state that the process of segmentation, “both fuelled by accumulation and fuelling accumulation, can be interpreted as stemming from uneven development of the tendency to concentration and centralization of capital” (TAYLOR; THRIFT, 1983, p. 450).

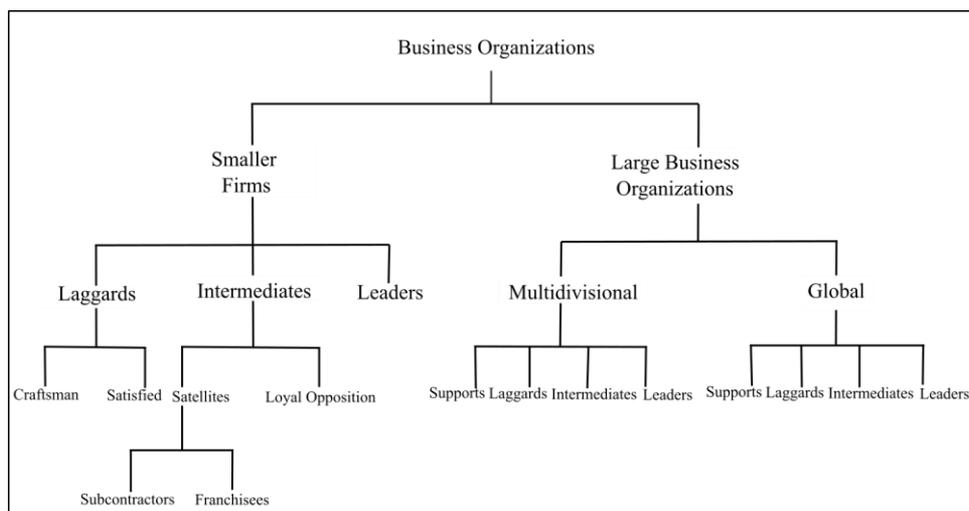
A further feature of this theory is that it has as its main purpose to insert financial organisations as central agents of economic and spatial changes, by electing the firm as the basic unit of economics, the meeting place of the macro and micro forces. They suggest studies on capital and its fractions not as mere gears of macroeconomic processes, thus proposing to restore some degree of arbitrariness for these agents in the bosom of capital reproduction laws. Falling within the scope of the geography of corporations, a subject that has been marked by fragmentary studies of small and large companies (DICKEN, 2013), the proposed economic and network power segmentation appears as a firm's integrating theory, by offering to interpret this as "islands" of conscious power over a chaotic market, opposing in this way at a reading of those fractions of capital as opposing to the market³.

The unification of capital studies and its fractions would begin with the acknowledgement of its common origin, both small and large organisations would be a result of the “access of organisations to resources, and thus *power relationships*”, which “[...] are highly uneven and strongly asymmetric” (TAYLOR; THRIFT, 1982, p. 1604, *our griph*). The *differentials in power* in bargaining cases, in accessing credit, in taxation, the extension of subcontracting relationships among other things, would engineer an economy split between domineering and dominated, controllers and controls, central and peripherals. The economic segmentation would not be a finished product in accordance with the “emergence of new *dominant* segments which are both the cause and the result of crises of accumulation. As each of these new dominant segments emerges so new *relations or domination and/or subordination* have become established while the old relations have to be renegotiated” (TAYLOR; THRIFT, 1983, p. 450, *our griph*).

The pattern of economic segmentation advocated by the authors, with a view to focusing on organisations and placing the networks of power as a central element, believes that each segment is constituted from a number of organisations with similar features that are cause and effect of its linkage to a specific economic niche. For the

³ This opposition arose with the theory of elaborate transaction costs by Coase (1937). In Geography, Scott (1986) merged transaction cost theory in interpreting industry organization and the theory of enterprise.

authors, there would be a fundamental dichotomy which has been maintained throughout the entire process of division between small businesses, often operating it at a single location, and large organisations with several multilocal, multi-sector and, in most cases, multinational companies (picture 1). The approach is rather deductive and based on the structural organisation of segmentation (TAYLOR; THRIFT, 1982), whereas the size is a relevant criterion, but not determinative (TAYLOR; THRIFT, 1983).



Picture 1. The current pattern of segmentation.
 Source: Taylor; Thrift (1983).

The small businesses segment has distributions in all sectors of the economy, with higher presence in non-manufacturers, which may be subdivided into three further segments: *laggards*, *intermediaries* and *leaders*. The first two may also show other internal partitionings. Both the craftsman and the satisfied are in retardants segments. The intermediate segment can be divided into *satellites* – within that segment, we also have another segmentation involving subcontracts and franchises – and *loyal opposition*. Below we have detailed the characteristics of this small businesses segment.

The *leaders* are normally the young companies which depend on invention and innovation of new products, processes, markets or services (TAYLOR; THRIFT, 1982, p. 1607 suffering from high creation rates and being shut down for operating in volatile and competitive markets. Many of them are an external source of Research and Development (R&D) for corporate sector. They face issues such as obsolescence of their products, the invasion or disruption of their markets or administrative inheritance (TAYLOR; THRIFT, 1984, p. 75). Notwithstanding the potential, they hardly become big companies, because of difficulties on access to financial loans, the likelihood of being purchased and major fluctuations in the demand of their products compared to those of bigger corporations.

A different situation is shown by the *intermediaries* acting in niche markets frequently associated with the large companies, enabling capital to survive. In that segment, the *loyal opposition* companies display low replacement rate, and are generally more stable, often in a single product or market, exhibiting a capacity to exist by acting in markets left behind by large companies or defying market hegemony set up by these organisations (TAYLOR; THRIFT, 1982, p. 1608). Another division of *satellite* companies, is made up of major organisations, with which they relate via pricing agreements and market-sharing, outsourcing and franchising.

Within *satellite* organisations, we have either outsourcers or franchises. The subcontractors, which concentrate on engineering and related industries, have high replacement rates and the importance of this relates to the externalisation of large companies' risks (labour cost mitigation and production maintenance and unbroken distribution of labour and economic crises). A Franchises suffer from high replacement rates and reliance on large organisations, making it common in retail activities.

Laggards are engaged in manufacture production in retail, distribution and services, displaying high closing rate and setting up new businesses, being able to withstand adverse scenarios. Within that segment, we have two interrelated types: *the craftsman and the satisfied*. The first remits a bit to proto-industrial workshops, in which the owner owns prior qualification by acting in the labour market, by producing or selling goods for smaller markets with limited technology. The second is understood by the following companies whose form of organization is kept small out of the owner's and his family's desire for control or the refusal of systematic forms of administration and bureaucracy of expanding companies. Many of these have a lifetime tied to the owner's lifecycle.

As for large organisations, they have two sections involving multidivisional corporation and global corporation. On both, the organisations are established as central and peripheral enterprises, forming its own uneven ground in development, given the continued need to steadily redefine the centre and the periphery in order to retain competitive contact with other organizations. They also share four segments which are made up of support, retarder, intermediary and leading companies, as an allusion to the product life cycle⁴.

The multidivisional segment consists of companies with low replacement rates, whereas many have become multinationals and increasingly diversified. These processes of geographical expansion and diversity have been pushing the companies within this segment to an increment in size and the choice of a multidisciplinary hierarchical structure by markets or products, referring to a structure based on product life cycle simulation strategy. These companies can be supportive, laggards, intermediaries and leaders. Leading companies act in the forefront with innovating activities, including new products, markets, services or new forms of investments. The *intermediate* ones are at the centre of operations for each organisation, providing constant, reliable and

⁴ See, in this regard, Vernon (1966).

continuous profits thanks to well-established products and capabilities. As for *laggards*, they may be part of a division, by producing goods prone to obsolescence or scored by high competition. Those of support are service suppliers to multidisciplinary corporations. Whether each organisation can still move over time, moving from the position of leader to laggards, it is more likely that most of it corresponds to a traineeship in product or market development (TAYLOR; THRIFT, 1982).

The global segment emerges from the multidivisional as the response to the structural economic crisis of capitalism and intensifying competition becoming cause and effect of the new phase of capital internationalisation and the corresponding international division of labour (TAYLOR; THRIFT, 1983, p. 457). The supporter, laggards, intermediary and leader partitions are maintained, but “global corporation's 'strategy' consists of more simple tactics facilitated by the way in which the corporation can transfer from one failing product cycle to another growing one with some ease (if not impunity)” (TAYLOR; THRIFT, 1983, p. 457). As characteristics of this new organisational form, we are aware of capital acceleration in multiple scales, greater demand on information for decision making and increasingly financial profits. Though outlined in a detailed and linear manner, the large organisations and small business segments maintains a close link, calling for their reading as interrelated segments; thus, they would not be enclosed systems. In the long run – looking at the product life cycle and the ossification of organisational structures - and under different forms (licensing, subcontracting, sale, employee transfer), business entities (companies) might change their *status* on the whole, but it tends to occur according to the authors, mostly in the small businesses segment.

Method of explanation and theory elements

In this section, our prime concern is outlining the main explanatory principles of the economic and network power segmentation model⁵, especially those related to explanatory and geographical scales, to the problem of history specificity and to what it constitutes the 'industrial' phenomenon. Such discussion of scales, space and time dimensions and the industrial phenomenon runs through all the analysed texts, but is directly addressed in Taylor; Thrift (1983), much to the worry and effort to offer an inclusive and comprehensive reading in productive structure studies from the perspective of the capital and its fractions. Now, let's see some of those principles:

1. *Notion of scale* connecting the most general processes (macros) with agents' decisions and actions within the organisations and vice-versa and enable us to understand the interrelations between different economic organisations in the midst of unequal domination and subordination relationships. Michael Taylor and Nigel Thrift put forward this integrative proposal because they understand that the political, interorganisational and organisational economy scales “adopted has acted as a partial barrier to movement up or down to the other scales of explanation” (TAYLOR;

⁵ Sposito (2004) raises awareness of the importance of analysing the knowledge pool, laws and principles of theory and its consistency with the method.

THRIFT, 1983, p. 446). Despite the authors' confusion around the equivalence of analysis levels on a specific spatial cut out, the main concern is the urge to think of mediations and levels of achievement of macro and micro processes.

2. *Notion of time and space* and historic and geographical specificities of theoretical structures. “[...] too often, theories and theoretical categories are assumed to be appropriated long after they have ceased to be useful, are assumed to apply to all time and space or to more time and space than they actually do” (TAYLOR; THRIFT, 1983, 447). By emphasizing the historic specificities, Michael Taylor and Nigel Thrift strengthen that a pattern of economic segmentation is not *ad aeternum*, inasmuch as the cumulation crises are to new sectors and new relations of domination and subordination. Aware of the reality of developed countries, it is pointed out that the number of organisations within each segment and the relative share to other segments is specific to private national economies, existing in a particular time and resulting from a different pattern of articulation across segments in space and time.

3. *Notion of manufacturing industry* that incorporates the diversification of economic activities conducted by corporations in its spheres of operation (involving, besides manufacture production, primary, intermediate and tertiary activities) and the change of spatial extension insofar as those corporations have different scales of space (regional, national, international). By widening the definition of manufacture industry, the authors have anticipated a few new economic realities (a new techno-economic paradigmization expansion and industry reduction/stagnation, globalization of industry, services and finances etc.)⁶ and the inadequacy of conceptual and theoretical inputs aimed at understanding the “industrial” phenomenon”.

4. *Notion of dialectics* between the segments of large organisations and small businesses. If, for one thing, attribute to the dynamics of accumulation and its crises the formation of a segmentation pattern, in turn, they reinforce that “the dualistic economy does not consist of two closed systems, but rather of a set of interrelated segments” (TAYLOR; THRIFT, 1982, p. 1609). That means, these are not dichotomous segments, if not inter-related, under the mediation of powerful relations. Michael Taylor and Nigel Thrift also stress that the relations of dependence they are not unidirectional, because big companies also depend on the small ones. They also emphasise the capital transitions among the segments over time and in different forms, especially for small businesses.

For what we have pointed out so far, it is a theory built on from a methodological point of view, brought under the influence of structural contingency theory, to the extent that it includes the principles of dynamic and conflictual reality (between the capitals) and of unequal development. Michael Taylor and Nigel Thrift, from a deductive referral⁷ aided by the method set out an economic segmentation by

⁶ Martin (1994) looks at how this new phase qualitatively different from the economic development – changing economic realities – lays out the theoretical-methodological developments in Economic Geography at a crossroads at the end of the 20th century.

⁷ We are in agreement with Sposito (2004) when he claims that induction and deduction are method routes.

considering unequal access to capital and its fractions to resources or manufacturing factors (capital, land, labour etc.). These unequal and asymmetrical relations of power between the capitals and their fractions are reflected in an organisation's ability *control the required resources for operating others, defining the dominant and dominated, controllers and controlled ones* (TAYLOR; THRIFT, 1982). The partitioning of the segments is done, predominantly, in accordance with the technology's monopoly control hinting at the product life cycle.

It is worth analysing the repercussions of segmentation theory and networks of power in Geography, in order to assemble elements for us to think of an epistemology of the resulting knowledge. Since this theory was developed in the early 1980s, any survey in printed literature would be a virtually impossible task. The use of the Google Academic tool, albeit stricter for works on the World Wide Web, denotes a significant set of quotes in the Anglo-Saxon literature. In Brazil, we have identified this reference in 10 publications which include books (BRITO, 2008; CORRÊA, 2010; SANTOS, 2012; SANTOS, 2012a), essays (OLIVEIRA, 2013; FERREIRA, 2018) and journal articles (SANTOS, 1992; CUNHA, 2002; MIRANDA NETO, 2014; OLIVEIRA, 2018). A required exercise is to understand how those authors have embodied the contributions of Michael Taylor and Nigel Thrift.

The idea of corporative spaces developed by Santos; Silveira (2011) has, against the background, theoretical contributions on organisational networks of power by Michael Taylor and Nigel Thrift. Indeed, we have seen a growth in the ideas of power networks, as originally proposed to understand the unfair interrelationships between the fractions of capital. Santos; Silveira (2011) incorporate the proposal of “power as an organisation's ability to control resources needed by other organisations” and use this to guide the requirements imposed by the organisations to the public sectors as regards the territorial allocation of engineering and infrastructural systems.

This idea of an extensive network of power also in the political sphere appears in Silva's works (2003, 2008), when it is stated that networks of power (technology, finance, production, marketing) are made up of political rings and/or inter-capitalist strategic alliances and representative groups of the political from various State bodies. In the author's own words, “corporations can be analysed as territorial political networks, revealing the mediation of mutual interests and the catch of different levels of power of collective and individual localized actions” (SILVA, 2003, p. 34)⁸.

Corrêa (2010) also has a bearing on the idea of networks of power in dealing with the economic and political pressure characteristics in corporations when addressing how economic and political practices, aiming at space organization, ensure an enlarged reproduction of capital. In a manner of speaking, on different works, Corrêa (1991, 2010) does not only delve deeper into the proposed research agenda of Michael Taylor and Nigel Thrift to understand the space domain of each capital and its shares, as it

⁸ We thank Fernando F. Oliveira for the indications of Carlos Alberto Franco da Silva and Leonel Mazzali's works.

moves forward, in a capitalist and inequitable class society, the corporate space practices aim at replicating inequalities.

Concerned about the inseparability of technical networks and all organisational actions, Santos (2012, p. 271) critically incorporates the proposal of networks of power, believing that “the structure of space itself is a fundamental requirement to the exercise of power and the local or regional nature of such empowerment.”. Though Taylor and Thrift (1982, 1982a), in a study at the level of foundries, have reinterpreted space interactions as operational manifestations of political power relations, paid little attention to incoming power of the actual materiality control of space.

This materiality of space perspective as a prerequisite for power planning has triggered a number of works concerned with space and ownership of the territory. In the works of Oliveira (2013), Miranda Neto (2014) and Ferreira (2018), we encounter this transposition of organisational power networks for spatial dimension. In other direction, Cunha (2002, p. 269) acknowledge the importance of take-holding and usage of technical networks, but finds that the empowerment of the organizations “does not stem from these, despite the fact that they allow for the validity, permanence and intensification of such power”. The author intends to find the “most relevant agents”, those who excel for fitting into various structures - technological, political, financial - and the linkages between these different networks for forming a network of power.

Although not directly quoting the authors reviewed here, Mazzali (2000), in the study of agribusiness reorganisation, exploits the emergencies of new organisational setups, by showing the considerable increase in the field of action of different capitals in structuring and restructuring hinges. To that end, the author claims that the “networked” organisation would reflect “the interdependency of economic actors, embodied in multiple ways of business relations requiring the specification of explaining the intra-network 'division of labour' system, from pinpointing the specifics of its inner structure” (MAZZALI, 2000, p. 157). If, on one hand, the dimension of power appears to be diluted on the analysis of intra and inter-company relations, both on vertical and horizontal networks, on the other hand, there is also recognition of the role of capital and its fractions in the change of structure.

The economic segmentation, as a result of the networks of power and monopolistic resource control, was added by Brito (2008) in a study on Petrobras and land management. In this paper, the author acknowledges the existence of “several enterprises of different sorts owned by a major corporation. These various undertakings operate connected in a network to a holding company” (BRITO, 2008, p. 166). The segmentation would result arise out of the function which each company plays within the corporate framework, which may be *leaders*, *intermediates*, *laggards* and *supporters*. Santos (1992, 2012a), in work on the analysis of segmentation in the urban economy, draws attention to the existence of an immense typology of companies from the most varied expressions which would not be restricted solely to the proposal of Michael Taylor and Nigel Thrift.

Corrêa (1991, 2010), in addressing the spatial expansion of productive capital, covers five corporate features, especially regarding multifunctionality and segmentation of large enterprises. As companies diversify their operations, they engage in non-technical activities generating multi-functionality. This multifunctional nature is further analysed on the basis of economic segmentation propositions, used to explain the differences between the constituent companies of a large organisation on technological development, division of labour and their role in the accumulation process within the corporation (CORRÊA, 2010).

This use-check exercise and enhancing the ideas of networks of power and of economic segmentation is proof that Michael Taylor and Nigel Thrift's proposals have been directly and indirectly present in a number of works. Networks of power theory has been extended beyond the control of the resources required to other organizations, incorporating control and the ownership of technical networks, special access to public resources, among other things. The economic segmentation, though, as the materialisation of power differentials within organizations, has not been fully embedded and deepened, on the contrary, it was criticised on a number of occasions for simplifying the range of organisational arrangements.

Some obstructions to theory

We could, once the ideas of Michael Taylor and Nigel Thrift have been exposed, raise other important points with regard to segmentation and networks of power theory, above all those shortcomings of this theoretical proposition, either at the time of its construction or when it is in use at the current moment. We then seek to outline four bottlenecks that can be raised on the scrutiny theory up to now.

Initially, the authors opt to handle the category of economic organisations and their fractions separately, taking into account the interrelationships of these units, leaving aside discussion on the role of the State in the reproduction of such or even the internalisation, the disputes and interests of these capitals within the State. It is a narrow vision of power, since the agency vision has business organizations as a privileged cut-off. Harvey (2005) contributes to this debate by stating that, while the capitalist system can work regardless of the State framework by means of networks and operating structures over the territory, without the State the risks are ever greater and with it, accumulation can be enhanced.

It would be thorough to detail the extensive academic literature on the role of the State in empowering the productive forces and, *per ende*, of capital and its shares, sufficiently so that we will introduce some authors and ideas in stylised ways. Chang (2004) and Oliveira (2003) contribute in their own way to understand the State's role in the industrialization of Currently Developed Countries by demystifying the idea of a free market. In that same direction, with fresh work, Mazzucato (2014) brings evidences on the role of the State behind the boldest, most incipient and capital-intensive investments which have led to radical innovations at the end of the 20th century and start of this century. Santos (2008) highlights that globalisation would not be the result of the

techniques alone, but also political choices, by giving elements to think about the role of the State itself in the setting up of the globalisation process. In a study of capital and its fractions, Oliveira (2019) and Santos (2012) enhance the importance of the State - via development policies, funding, economic infrastructure investments, etc. – and the political connections as well as networks of economic agents.

Secondly, the nature of intra- and inter-organisational power networks seems **static and deterministic**, leading to a long-term reproduction of segmentation. Taylor (1996), after the criticisms of segmentation theory and networks of power, acknowledges these weaknesses, assuming it is a question of “an essentially static concept, a description of frameworks of interrelationships at some point in time. It does not identify a dynamic of change - the way in which relationships might alter and evolve” (TAYLOR, 1996, p. 1043). He further admits that “the nature of intraorganizational and interorganizational power networks assumes the form of an organizational or entrepreneurial topography which determines [...] the rate and direction of technology transfer” (TAYLOR, 1996, p. 1043).

Dicken (2010) contributes to the debate on the organisational architectures of corporations stating that they are not homogeneous highly depending on their specific histories and geographies and the complexity of the industrial environments in which they operate. This means to say that there are several types of companies, not restricted to segmentation and shares proposed by Michael Taylor and Nigel Thrift. Chesnais (1996), when addressing the shifts in contemporary business organisations, says that large companies, in spite of the diverse emerging forms of production organisation (networked businesses and network businesses), has a new range of procedures that they keep stable oligopolistic dominance, that is to say, the hierarchies and asymmetric relations between capitals and their fractions are maintained, signalling the vibrancy of the idea of power networks.

One way of capturing the diversity of forms of action and business unfoldings, apart from the concrete ways in which capital is embodied (industry, services, banking and finance, plus various organisational arrangements), according to Chesnais (1996) is to see capital as a value aimed at self-valorisation, making profits, where sectoral, spatial and organisational conditions would merely be contingencies. Serfati (1998), in that same direction, warns about the importance of using the notion of capital as a mass of money susceptible to being valued at a time when rifts between industry and finance and the organisational limits are less noticeable⁹.

The third is about power networks in the context of disputes between capitals and their fractions, disregarding disputes arising from **capital-labour relations**. While it is recognised that no causal relationship can be established between segmentation and

⁹ Pessanha (2019) contributes to this work introducing the work of the financial funds in the control of organizations, contributing elements to consider the financialization of business organizations. His contribution is of fundamental importance, in so far as it shows that large organizations would no longer be operating under a financial rationale through a holding organization, but would be directly caught for financial funds etting back to the return on equity logic above.

the labour market, there is no discussion on the role played for capital-labour disputes in the constitution of the various organisational arrangements. Except for the recognition of subcontractors' role on labour cost mitigation and production maintenance the unbroken distribution of labour disputes and economic crises in favour of major organisations, the remaining forms (global, multidimensional etc.) are given expression as part of uneven development of capital accumulation dynamics.

The fourth, intersegment classification obeying the products life cycle (VERNON, 1966) also poses problems such as the thrust of **static innovation** and confusion in distinction between multidivisional and global organisations, with difficulties in defining centre and periphery between segments and spaces¹⁰. Life-cycle theory, a pivotal role in defining the segments and their partitions, does not explain why certain firms, but not all, are innovative, fails to make a sharp distinction between product and process innovation, is far too deterministic and presupposes imitation/generalisation of the US consumer model for other countries worldwide, as well as pouring very little in the length of each phase and the time of transition from one to the other.

Benko (1996) raises the issue of accelerating technological changes, the emergence of new economic activities and the still little-known spatial logics. Faced with these new elements, life-cycle theory would be inapplicable for small businesses, would hold back short cycles (5-7 years) of products increasingly marked for programmed obsolescence, and the ongoing trend of investment in product innovation and skilled workforce. Benko (1996) also points out that the life-cycle pattern has been changed towards decentralisation of Research and Development (R&D) telematics and that it is simplistic by casting the products in the same mould.

Hayter; Patchell; Rees (1999), by resuming the theory of segmentation and power networks most recently highlight the weaknesses of static vision of legacy innovation with product life-cycle theory and therefore, they call for a rethinking of segmentation from an innovation theory like a dynamic process, a creative destruction liable to destroy and create new forms of segmentation, introducing Schumpeterian and neo-Schumpeterian precepts. The same writers under the sway of evolutionary and institutionalist literature, enlarge the comprehension of the links between capitals and their fractions, by not only proposing to think about the asymmetrical power relations, marred by domination and subordination, but also collaborative relationships and learning.

To this end, the above authors concede that the partitioning model based on opposing poles (giant multinationals and small businesses) would not cope with the complexity of industrial organisation or company size distribution, especially with the emergence of Large Companies (*Large Firms*) in thresholds, locally located but sufficiently able to drive the fate of the communities in a globalised process. In that

¹⁰ The cycles are getting shorter and its dissemination is not restricted to the follow-up between developed and underdeveloped spaces (BENKO, 1996; SANTOS, 2012).

direction, the authors offer a triadic model where networks of power would be complemented by learning relationships.

Most of the above-mentioned obstacles result from the authors' theoretical-methodological choices and concerns, so much worried about unifying the firm's studies in corporate geography, as to the reinstatement of the firm as an active and central economic agent. Michael Taylor and Nigel Thrift, be it partnership or separate initiatives, have sought to respond to criticism and also refine their initial proposals. Notwithstanding, the contribution on businesses diversity on the scale and scope of their operations and their inclusion in a vast and intricate networks of unbalanced power relations (DICKEN; THRIFT, 1992) has survived all criticism, as directly and indirectly, these assumptions are in all works that have businesses in economic geography as subject of study.

Current or surpassed theory?

The exercise to revisit the discussion about segmentation and power networks 40 years after makes it possible to verify the foresight of this theory, insofar as it advances some procedures and dynamics which would become consolidated *a posteriori*: a) economic financialization, with a switch in the strategies for major groups increasingly financialized; b) the shape of "global production networks" under the aegis of "multidisciplinary" or "global" multinational companies; c) new forms of investments, by extending subcontracting relationships and increase of franchisees; d) the unsuitability of economic sector concepts to explain the industrial organisation.

Aside from the constraints - no space structure as a condition for exercising power, poor understanding of the role of the State, static innovation, deterministic topography of the organisations, the absence of discussion of capital-labour disputes etc. -, a knowledge epistemology indicates that the firm as *power network* is largely current in economic geography work which have political economy as their bias. In spite of that, the idea of power is rarely brought to the fore, studies tend to focus on procedures (MARKUSEN, 2005), replicating the idea of a firm as crystallisation of commercial efforts (SANTOS, 2020). A political economy that combines processes and actors (businesses and states) at different scales without subsuming the "actors" to the processes is urgently needed.

The integrations and refinements of the ideas analysed m indicate the importance of thinking about power networks and the fight for resources control between capitals and their fractions in the light of specificities for each spatial cut-out and the dynamics of each economic activity, in order not to reduce our analyses on globalist actions of the despotic big capital (REHNER, 2012) or the vulgarity of territorial development based on small companies of local and regional actions (BRANDÃO, 2002)¹¹. The power networks between capitals and their fractions and

¹¹ Brandão (2012) suggests a research agenda for the reproduction of local and regional capital to not just understand the territorial dynamics, but rather the permanence of inequalities.

those with the State - at their different levels - reproduce, first and foremost, an uneven development upon which the strategies of expanded reproduction of capital are based.

It is undoubtedly problematic to reproduce today the economic segmentation proposal from economic organizations to explain the industrial organisation and the distribution of firms in the production system. An updating task needs to be aware of the principles laid down by the authors on scale, space and time, and changes in industrial organisation, bearing in mind the specificities of each situation. It seems to us, though, that the causality of segmentation is powerfully able to explain the segmentation as the causes have to do with the uneven dynamics of capital accumulation. The same could be said of reproduction of segmentation and barriers between segments rooted in unequal power relations between the capitals and their fractions.

And last but not least, the study on industrial organisation with the firm as its central focus as is the case with segmentation theory and networks of power, cannot fail to understand the decision-making process, i.e., understand some degree of capital fractions discretion in the face of the general laws of extended reproduction. Can it all be explained by the structure? How to think of human agency? In this direction, more recent works (MARKUSEN, 2005; SCHOENBERGER, 1994; CLARK, 1994) have shown the arbitrariness behind the strategies by flesh-and-blood agents in the productive restructuring processes and regional changes.

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