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Alternatives to bureaucracy based on worker participation and horizontal management: Why do they work?

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Abstract: Administration is an academic field that is showing signs of maturity, with a theoretical and practical mainstream that has been consolidated around Weberian bureaucracy, a management paradigm with numerous examples suggesting that it may be reaching its limits in terms of the new advances it can offer the discipline. On the other hand, the shift to a paradigm that transcends it (while retaining all its virtues) requires not only successful empirical counter-examples, but also a consistent alternative theoretical corpus that gives academics and especially practitioners the confidence to adopt it. In this sense, through "integrative" literature review-based research, the article intends to outline a scholarly narrative that provides concrete theoretical underpinnings to explain, in a systematic and concise manner, why management styles that depart significantly from bureaucratic orthodoxy are stable (i.e., do not diverge towards "chaos and anarchy"), while also proving effective and efficient. As a result of the analysis carried out, an intertwined combination of contributions about alternatives to the classical bureaucratic arrangement is obtained, sourced from studies of different time periods. Thence, based on four conceptual axes (self-actualization, objectives, capabilities and monitoring), the elaboration of a theoretically integrated explanation for the sustainable viability of participatory and horizontal management is achieved. This article's contribution points towards the future possibility of consolidating novel approaches that virtuously supplant the current bureaucratic mainstream.

Keywords: participatory management; horizontal management; bureaucracy; administration paradigms; integrative review; theoretical foundations

1. Introduction

The emergence and significant spread of modern organizations as the fundamental unit of production has radically changed the socio-economic landscape of the last 150 years. In this sense, large socio-productive sites that bring together many people under the same roof to attune their behavior towards the same production objective, have become ubiquitous in our present era [1]. Following Simon [2], "organizational economy"—rather than "market economy"—is a more appropriate label for our modern economic system. Hence, the emergence of a new scientific discipline was required, to understand and deal with the increasing complexity involved in coordinating dozens, hundreds or even thousands of people, in order to avoid mutual interference and to enhance the combination of their respective individual efforts. In this regard, Taylor, Fayol and Weber, considered as the founding authors of this new scientific discipline named "Management" or "Administration"—which takes organizations as its central object of study—established the theoretical foundations on how best to coordinate people's simultaneous work in pursuit of a joint objective [3]. In particular, they laid the groundwork for the consolidation of

bureaucracy as the most pervasive "social technology" [4] of modern capitalism. As a result, Administration has since been primarily concerned with analyzing bureaucracy's range of variants, especially those that minimize its acknowledged yet supposedly unavoidable collateral damages [5].

On the other hand, this narrative of bureaucracy as "the worst form of organization, except for all the others" [6], has not been free from crises of legitimacy. Indeed, several authors from different times and contexts have—implicitly or explicitly—criticized its recognized shortcomings and negative effects on organizational performance, such as the generation of apathy, low morale, absenteeism, and the killing off of initiative and inventiveness among ordinary workers; encouraging inefficiencies such as private empire building or late reaction to major problems that top management has no contact with or knowledge of; and fostering a culture of conformity to rules, rituals and inward-oriented goals that are highly resistant to change and innovation; among others [7–12]. However, despite all its acknowledged and notorious flaws, the bureaucratic paradigm has so far managed to withstand periodic questioning of its hegemony [6,13]. In this respect, as several of these bibliographic references indicate, the importance of the issue regarding the real possibility of transcending bureaucracy to craft more agile and optimal organizational management systems continues to generate vibrant and topical academic debates.

To be sure, real experiences suggesting that the shortcomings of bureaucracy can be overcome—while maintaining or even improving organizational economic effectiveness and efficiency—have already been documented for several decades [1,14]. Nonetheless, their example has not yet been sufficient to convince entrepreneurs and managers in general of the existence of better "social technologies" for the coordination of large goods and services production sites. In this sense, there are indications that the rationale behind this impasse on change, rather than economic, might be related to the cultural challenge involved in the practical adoption of alternative paradigms [3,15]. Another explanation for the inability of alternative heterodox approaches to gain a firm foothold may be found in the lack of an ordered and consolidated theoretical corpus, that allows the proposition of structured and convincing alternative explanatory narratives that propel a paradigm shift [16].

The article aims at presenting a proposal in this sense, for contributing to the consolidation of an alternative paradigm that, by making the most of bureaucracy, is able to transcend it. To accomplish this objective, it intends to profit from the various unorthodox theoretical frameworks that, since the appearance of Taylor's *Scientific Management*, have contributed to the analysis and explanation of the organizational phenomenon. Put differently, by taking stock of the diverse approaches to the topic that have emerged since the 1920s, the article aims at their combined synthesis—through an "integrative" literature review process—for obtaining a set of consolidated and concatenated explanations, as to why alternatives to bureaucracy based on worker participation and horizontal management work. In this context, the specific "gap-filling" contribution of the article is the outlining of a scholarly narrative that provides concrete theoretical underpinnings to explain in a systematic and concise manner why such management styles, which depart significantly from bureaucratic orthodoxy, are stable (i.e., do not diverge towards "chaos and anarchy"), while also proving economically effective and efficient.

To this end, section 2 provides the background with an extensive historical overview of diverse and successful real-world management arrangements that constitute concrete empirical alternatives to bureaucracy. Section 3 presents the methodological strategy assumed to identify and collect the relevant theoretical building blocks to accomplish the research objective. Section 4 then displays the results obtained through the "integrative" literature review on participatory and horizontal management. Section 5 discusses these results, amalgamating them into a consistent theoretical thread that elucidates why such management schemas do work. Finally, section 6 concludes and presents suggestions for future research.

2. Background

The search for alternative management arrangements to bureaucracy is not as novel as usually considered. Indeed, the consolidation of the Taylor-Fayol-Weber trinity as the cornerstone of mainstream Administration—from the 1910s onwards—was accompanied by heterodox initiatives of various origins. Therefore, this section presents brief descriptions of 10 empirical cases of more participatory and horizontal management arrangements. They are grouped into the cases that go from the end of the 19th century to the 1970s period, and those from the 1980s to recent years.

2.1. Empirical examples from the 19th century to the 1970s

Starting with the case of worker cooperatives, these organizations were already proposed in the 19th century as an alternative to the "capitalist firm" [17], on the assumption that democratic management materializes as an equivalence—or a natural extension—of the democratic and egalitarian way in which their ownership is structured (since every worker is a shareholder on the basis of the "one member, one vote" principle). However, the presumption that the democratic nature of ownership produces an automatic and integral "contagion effect" throughout the rest of the day-to-day organizational dynamics is often not borne out. In fact, once the worker-shareholder assembly is held, the management of many worker cooperatives assumes a bureaucratic pyramidal configuration very similar to that of traditional companies, distancing member-owners from important management decisions [18], thereby generating a "cooperative dissonance" [19]. However, alternative approaches have been identified to overcome this "dissonance" by establishing management dynamics that dismantle pyramidal rigidities [20–23].

Moving to the conventional business organizations, Drucker [1] reviews cases where autonomous teams of workers were successfully implemented—between the end of the 19th century and the first decades of the 20th century—at the optical products manufacturer Zeiss, as well as in the early stages of IBM. He also describes similar examples in US car and aircraft factories during World War II, innovations not undertaken out of conviction but as a last resort in the face of a shortage of engineers and managers. The results of these cases are described as "excellent", yet they were considered exceptional or driven by urgency.

Another early example of a significant departure from the orthodox bureaucratic approach is the case of the "Scanlon Plans", highlighted in McGregor's analysis [10]. Named after Joseph Scanlon, an American metalworker and trade unionist who, in the

late 1930s created "gainsharing" initiatives whereby management and workers shared the costs saved and efficiencies achieved. The central institutional arrangement for this type of program is the "production committee", which is made up of representatives of both sides and approves proposals jointly. According to Wren [24], 117 organizations have implemented Scanlon plans, the vast majority with notable results.

A notorious heterodox approach that gained momentum in the 1970s and 1980s is the "socio-technical" (ST) paradigm, which emerged in the post-war period from direct observation of autonomous work teams spontaneously formed in the depths of British coal mines [25]. Subsequently, several authors [14,26] consolidated the conceptualization of organizations as the interaction between two subsystems: the technical and the social. In this sense, the achievement of higher levels of productivity, satisfaction and quality in the workplace requires the pursuit of joint optimization of both subsystems. This is achieved through the creation of autonomous teams (AT), which implies a change in the method of work organization from the typical Taylorist system of atomized and repetitive tasks to one in which groups of workers, without supervisors, exchange tasks and jointly take responsibility for organizing, coordinating and monitoring an entire operational cycle [27].

Concretely, redesigning organizations from an ST perspective implies that workers acquire diverse skills that enable them to perform several task types, rather than concentrating on just one. Moreover, in addition to direct productive duties, workers bring under their purview certain key indirect jobs such as quality control, raw material need planning and maintenance. In this way, they become the "responsibility and not the excuse" of work team members [14,28]. **Figure 1** depicts the nature of the participatory dynamic proposed by the ST paradigm, which develops only within the operational domains related to the immediate work environment [12], while maintaining hierarchical structures for the rest of the organization.

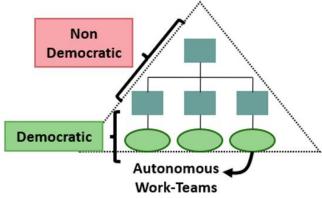


Figure 1. Structure and management nature in a socio-technical organization [29].

For their part, Womack et al. [30] review the emergence of the "Lean" production system, which has positioned itself as the cutting-edge paradigm of Administration by combining the advantages of craft and mass production (Taylorist bureaucracy) systems. It is based on the following organizational innovations: creation of teams of five to seven workers; workers performing a wider range of tasks previously assigned to specialists (maintenance, basic repairs and quality control), multi-skilled workers who are able to perform all tasks under the responsibility of their team; workers who

influence the way they perform their tasks through "quality circles", making suggestions for "continuous improvement" (*kaizen*) in collaboration with industrial engineers. In this way, Lean promotes a strong adherence to process standardization, although—contrary to Taylorism—the rank-and-file workers are encouraged to contribute significantly to the definition of such standardization, giving it a distinctive participatory management framework [31].

Another unorthodox management approach worth analyzing is Sociocracy, also emerged during the 1970s. Devised and implemented by Dutch entrepreneur Gerard Endenburg, it implies a combination of hierarchies and democracies based on semiautonomous "circles" that are usually constituted by the same people who comprise a functional area. Within these circles there are two key roles: the "functional leader" (hierarchically appointed) and the "representative nexus" (democratically elected). Both become part of a hierarchically higher circle, which ensures a "double link" for the lower circle: one hierarchical, the other democratic. Figure 2 below represents the chart of a real sociocratic company, evincing the overlap between classic pyramidal structure and double-linked circles. The main function of the latter is to hold "policy meetings" every 4 to 6 weeks, which—through a rigid operating format—establish the main guidelines and rules on how the circle's workers will carry out their mission [32]. A remarkable trait about these circular dynamics resides in its decision-making method, which does not rest on classical majority, but on a special kind of democracy called "consent", an old Quaker principle adapted by Endenburg to the business world. Consent is not a direct synonym for "consensus", in the sense of rigid unanimity about what should be done. Rather, it is about reaching a state of minimum group acceptance for action, without implying that all decision-makers regard the chosen alternative as optimal, or as the most preferred by everyone. Seen from another angle, consent implies unanimity in "non-objection" to a particular course of action. It is not necessary that everyone says "yes", it is sufficient that nobody state a "no". Such objection—if raised—must be solidly posed, a situation that demands debate and creativity to find new overcoming solutions. Consequently, consent usually requires time and effort from circle members, though once agreement is reached, solution implementation is substantially sped up, concurrently reducing risks of hidden dissenters' blockages [33].

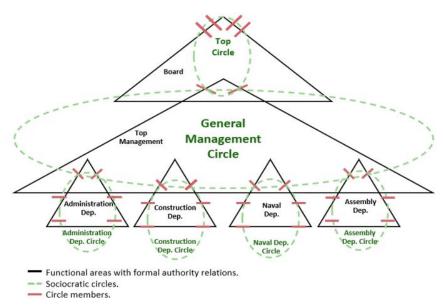


Figure 2. Sociocratic structure of a real organization [32,33].

2.2. Empirical examples from the 1980s to the present

Complementarily, a management framework called Holacracy, which is similar to Sociocracy but with some specific adaptations, has become popular in recent years [34]. Developed and promoted by US software entrepreneur Brian Robertson [35], Holacracy is currently used by hundreds of organizations around the world, most of them belonging to the technology, information and knowledge sector. One of its distinctive features is its reliance on a written "constitution" that sets out the rules for the redistribution of authority, with rigid and impersonal processes for defining roles and their respective spheres of influence. These rules must prevail over anyone who adopts them. As for decision-making, it is not based on simple majority but on unanimous "non-rejection", which means that there are no valid objections raised (Robertson provides a definition of a "valid" objection: they must be concrete reasons that can cause harm. To determine this, he proposes an objection validity test [35].).

Another management arrangement similar to earlier examples is the Agile Methodologies (AM). In a certain way, AM could be considered a "transfiguration" of the ST paradigm within the software industry. It emerged at the end of the 1990s, when several authors and practitioners proposed alternatives to the criticized "waterfall" approach (inspired by the bureaucratic paradigm), a process that led to the Agile Manifesto [36]. This statement is based on 12 principles for achieving greater agility in software development which, rather than focusing on engineering dimensions, emphasize the importance of frequent collaborative relationships between the various human groups that make up a project. While the evidence suggests that AM was not directly inspired by the ST paradigm, there are notable similarities in their conceptual frameworks like the limited degree of team autonomy following the need for organizational alignment, as implied by the analysis of some specialized scholars [37,38].

On the other hand, a recently emerged heterodox management alternative is the "New Style of Relationships" (NSR), originated from the Spanish Basque Country cooperative complex and applied to companies and institutions with other legal

ownership structures (corporations, associations, foundations, etc.) of up to 3000 workers [39]. Devised by Basque entrepreneur Koldo Saratxaga, the practice of Nuevo Estilo de Relaciones (NER) represents concrete functioning measures such as [40–45]:

- Thorough removal of controls and formal hierarchical authority relationships.
- Promotion of economic and financial information transparency, which encompasses education and training in shared economic concepts, used for key indicator calculation (whose real-time values are displayed on visible notice boards).
- For non-cooperative organizations: arrangement of highly equitable pay schemes (small gap between top and bottom earners), along with the establishment of worker profit-sharing systems.
- The constitution of self-managed teams (SMT) that democratically elect their own leader, establish their workflow, and set their particular development and production goals.
- SMT leaders do not command and control; rather, they assume the role of the teams' democratically elected representatives. Therefore, their function is fundamentally coordinative, working as crucial links between the various SMT that compose the organization. Additionally, leadership can be recalled at any moment, and assumed as a rotatory role. Its fulfillment does not imply extra payment.

To ensure that SMT objectives get aligned with the organization's needs and objectives, two additional teams are created: the Commitments Team, and the Steering Team. Both are (usually) composed by SMT leaders. The first meets with a high frequency (e.g., once a week) for more immediate workflow's detailed coordination, while the second meets with a more spaced-out frequency (once every fortnight, or every month), looking after medium- and long-term objectives [46]. Regarding the NSR decision-making process, its dynamics aim at "non-rejection" unanimity achievement, resembling sociocratic consent [47]. In this sense, another salient NSR feature is the process of strategic or high-impact decision-making (i.e., far-reaching decisions affecting all teams in the organization). For such occasions, workers assembly gatherings are drawn upon, where—as a general rule—a secret vote's 90% minimum support is required for decisions to come into force (i.e., the purpose is to move as near to unanimity as possible). Figure 3 depicts NSR organizational configuration, where special self-managed teams (transversally structured) and a "General Coordinator" are presented. The latter is the elected Steering Teams' leader (who should also be endorsed by a workers' assembly) who fulfills representation with the outside functions, as well as communication and strategic activities follow-up.

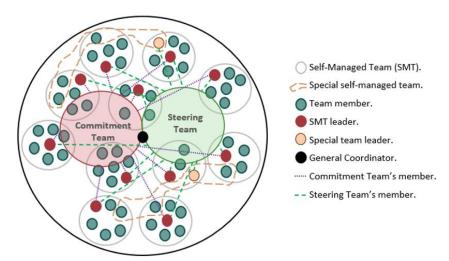


Figure 3. New Style of Relationship (NSR) organizational configuration [29].

Finally, the latest development in participatory and horizontal management approaches is the "RenDanHeYi" (RDHY) system, originally conceived by Zhang Ruimin, CEO of Haier, the Chinese white and brown goods manufacturer. This "zero distance" system between worker and client is based on an appealing management novelty: The break-up of a leading global company with 80,000 employees into about 4000 micro-enterprises (ME). The typical ME has around 15 employees (although the largest ME can have more than 200), is led by an "ME CEO" and is broadly classified into two subtypes: shared services and platform. The former are in direct contact with customers, having the responsibility of selling Haier's products and services to them, and of receiving continuous feedback from the market (e.g., MEs in charge of laundry products, laptops, kitchen products, etc.). Regarding the latter, they are responsible for typical support functions (manufacturing, logistics, personnel, etc.). In effect, the MEs are miniature companies [48-50], with their own autonomy to hire staff, make investments, launch new products and functions (provided they can raise the necessary capital), and which, through "light contracting", establish the general parameters of the mutual support and relationships they will have with each other. In addition, each has its own profit and loss account, which, if positive, is shared between Haier and the ME members. In order to prevent these "internal micro-businesses" from focusing exclusively on their own results, perhaps to the detriment of the overall objective, "Ecosystems of Micro-Communities" (EMCs) have been created, so that for a given set of MEs fulfilling a logical collective function, common results are established. In this way, each ME also shares part of its results with the other MEs in its ecosystem, thus promoting systemic collaboration. Recent RDHY analyses [48,51] point to a remarkable success of the system in creating an environment of high horizontal participation (in decisions and results) among the employees of a large multinational company, without succumbing to the attempt. In this way, RDHY represents a tangible expectation that participatory and horizontal management systems do have global scalability, a matter of great scholarly interest for further follow-up in the years to come [52,53].

The brief but comprehensive chronological overview of the main heterodox management models developed throughout this section, is summarized in **Table 1**. This table offers a panoramic view of the wide and diverse range of alternative

approaches to organizing, which—to varying degrees and in different forms—significantly depart from more traditional bureaucratic logics and dynamics. Therefore, following Hamel and Breen [3], we are still far from declaring an "end of history" in terms of how best to exploit the synergies of joint working implied by organizations. The cases reviewed so far indicate the existence of several alternative practices to bureaucracy, which are not only effective and efficient, but also show stable functioning over time. Ergo, there is empirical evidence that these heterodox models do work.

Table 1. Chronological list of empirical cases of more participatory/horizontal management arrangements, alternative to bureaucracy.

Time period	Denomination and/or short description	Main references
19th century to the present	Worker cooperatives. Alternative to the capitalist firm, that sees democratic management as an equivalence of the democratic ownership structure.	Gonza et al. [17]
End of 19th century and WWII	Zeiss and IBM in 19th century, and some US factories during WWII implementing autonomous teams of workers.	Drucker [1]
1930s to the present	Scanlon Plans. "Gainsharing" initiatives whereby management and workers shared the costs saved and efficiencies achieved.	McGregor [10]
1950s to the present	Socio-Technical Systems. Participatory dynamic through autonomous teams, only for the operational domains.	Trist and Bamforth [25] Achterbergh and Vriens [28]
1970s to the present	<i>Lean</i> . Rank-and-file workers are encouraged to contribute to standardization through "quality circles", making suggestions for "continuous improvement" (<i>kaizen</i>).	Womack et al. [30] Adler [31]
1970s to the present	<i>Sociocracy</i> . Structure with "double link" between higher and lower circles: one hierarchical, the other democratic. Decisions by "consent" taken during circle meetings only.	Romme [33] Buck and Endenburg [32]
1990s to the present	Agile Methodologies. Similar to Socio Technical Systems, as alternative to the "waterfall" approach in IT industry.	Hoda and Murugesan [38]
1990s to the present	New Style of Relationship. Removal of formal hierarchical authority relationships, replaced by linked autonomous teams. Decisions by "consent" and worker assemblies.	Saratxaga [46] Estragó [40]
2000s to the present	<i>Holacracy</i> . Similar to Sociocracy, with a written "constitution" as a distinctive additional feature.	Robertson [35]
2000s to the present	<i>RenDanHeYi</i> . Break-up of a large global company into micro-enterprises grouped in "Ecosystems of Micro-Communities".	Steiber [51] Lago [48]

Source: Author's own elaboration.

The question that remains to be answered from a theoretical perspective is: why do they work? The following sections focus on the collection and analysis of theoretical approaches from different authors and time periods, which combined allow us to formulate a robust answer to this research question.

3. Methodology

The methodological approach adopted for this article is the "integrative" literature review. According to Snyder [54], the literature review process can be broadly defined as a systematic and targeted collection to synthesize the main contributions of previous research in a particular scientific field. It is an excellent way to condense disparate research findings on a topic in order to highlight new evidence with a meta-level analysis, or to identify areas where research could be further developed.

In this sense, the author highlights a particular type of literature review-based research, which is of interest for this article. Namely, in cases where the research question requires a collection process that does not aim to cover all articles ever published on a topic, but rather a selection based on key criteria and constructs that allow the emergence of new theoretical frameworks. In these situations, the literature review process provides the basis for the construction of new theories or conceptual schemas. Following others, she refers to this process of literature selection as "integrative" or critical, since the aim is to weigh up, critique and synthesize the literature on a field of research in such a way that new perspectives emerge. This approach can even be used in mature fields to gain a temporal perspective on the knowledge base achieved so far, in order to critically review and reconceptualize the theoretical foundations of the subject under study.

Snyder [54] points out that this type of review requires a "creative" process of collection, in the sense of being able to select key pieces of literature (rather than keeping as many as possible) in order to combine them and derive novel insights. Therefore, it does not usually follow a strict standard like other types of literature review. However, an integrative review is not a mere descriptive summary that recites notable cases without further analysis: it is a *sine qua non* condition that the process leads to concrete advances in theoretical frameworks and/or the state of knowledge of the scientific field under consideration. There must also be transparency about how the integration was done and how the articles were selected.

For this research, selection was accomplished after analyzing the results of extensive literature reviews, carried out in specific databases such as Google Scholar, Semantic Scholar and library catalogs specializing in economics and Administration. Likewise, an exhaustive survey of historical bases belonging to scientific journals specialized in the article's subject (such as Economic and Industrial Democracy, Journal of Co-operative Studies, CIRIEC journals, among others), and of specific texts (such as contemporary management textbooks) was of great importance. In general, these searches began with terms related to the article's subject such as: "economic democracy", "democratic management", "participatory management", "worker managed firms", "horizontal management", "self-managed teams", "alternative to bureaucracy", among many others. After careful reading of the obtained results a "snowball" strategy usually followed, i.e., new references to books and articles on these topics were obtained from the studied texts. In this way, several hundred texts were analyzed to arrive at the final selection (developed in the next section and summarized by **Figure 4a,b** below).

The selection of these authors was guided by three inclusion criteria: a) the impact of each author in terms of conceptual and theoretical contributions to the science of Administration, b) to cover as much time as possible from the consolidation of the discipline more than 100 years ago to the present, without neglecting issues related to the necessary synthesis required in this type of research, and c) to select authors whose writings identify theoretical and conceptual contributions of novelty and/or value, regarding the certain feasibility of running organizations with schemas alternative to Weberian bureaucracy.

With regard to premise a, a first indicator used to evaluate the impact of a text is the "Research Interest Score" calculated by the academic social network ResearchGate, aiming at the 99th percentile within disciplinary branches such as "Organizational Studies" or "Business Administration". This measurement could only be carried out for the most recent authors, so an additional indicator was used to consider texts whose Google Scholar citation count was at least equal to that of the texts selected by the previous indicator. Finally, for texts published before World War II, the most important authors analyzed by any current management textbook were simply included, since, as Drucker [1] rightly points out, writings on the discipline prior to that date were indeed scarce.

In the following section, the results of this literature review on participatory and horizontal management are presented and analyzed in chronological order.

4. Results

A selection of highly relevant contributions from 14 studies that deal with the sustainable viability of participatory and horizontal management systems is presented below. This compilation is the condensed result of an extensive integrative literature review. As with the empirical examples, a division into two groups was defined: contributions from the 1920s to the 1970s period, and those from the 1980s to recent years.

4.1. Contributions from the 1920s to the 1970s

In the context of its emergence (the 1920s decade), Mary Parker Follett's thinking was both pioneering and counter-current. The cornerstone of her formulations is the relationship between conflict and human diversity. For her, conflict is neither good nor bad in itself, since it is the inevitable expression of different interests in a context of diversity. Therefore, if conflict is channeled constructively through integration, it enables the use of the skills and power always latent in all diversity [11]. To this end, it is crucial to build trust and mutual respect by valuing people—the constituent elements of social systems—as human beings; a notion that does not imply redundancy, given the mechanistic heyday of the time. In this regard, the desire to govern one's own life is one of the most fundamental feelings of any human being: "People do not like to be ordered even to take a holiday". For this reason, she did not hesitate to emphasize to the businessmen and managers of the time that "one person should not give orders to another person, but both should agree to take their orders from the situation". Achieving integration in this sense paves the way for another nodal element in the author's vision: the practice of responsibility by rank-and-file workers, which ultimately generates pride in their own work. For the author, the main problem that Administration must solve is to make each member, including the workers, feel collective responsibility for the organizational whole and not merely for their function [11]. The key to resolving this dilemma lies in understanding the organization as a collection of local communities whose development, both individually and as a group, is maximized when they are given the opportunity for self-management at the highest possible level. In the logical conflicts that this process entails, transparency is essential, since if people have a real idea of the "why" of things, much more can be obtained from them. Thus, for Parker Follett [11], it is possible to treat workers as partners, as they also possess great managerial skills that should be

harnessed. Complementing this, the author's perspective on decision-making power is that it is not a "substance" that comes in limited amounts, or that someone necessarily loses in order to give it to someone else. In effect, it is possible to find management methods that do not result in a zero-sum game by giving more power to workers, so that situational leadership can be harnessed to increase the overall power of the organization as a whole.

Had Parker Follett's theories received the initial deserved recognition, Elton Mayo's famous Hawthorne experiments might have been regarded as complementary studies. Indeed, these experiments, conceived in the 1920s and 1930s as a project to discover the effects of comfort variables on productivity at work [55], led to somewhat unexpected conclusions, giving rise to the acknowledged "Human Relations" school. Nevertheless, an undeniable merit of Mayo's work is that it consolidated the idea that financial incentives are not the only motivators for workers, nor are they usually the most important ones. That is, the human groups that make up organizations are not "hordes of individuals, each actuated by self-interest, each fighting his neighbor for the scarce material of survival", but they need to feel a sense of belonging to a social group (which provides a sense of security).

A few years later, heterodox approaches continued to flourish, with contributions such as that of psychologist Abraham Maslow [56] (originally from 1954), which marked a definitive breakthrough in the approach to analyzing the fundamental component of organizations: people. Indeed, Maslow's proposal opens a path towards the antipodes of the elementary Taylorist perspective: in reality, all people (even rankand-file workers) have high-level motivations and possess diverse and astounding capacities that are often stifled by society (and organizations). His approach is based on the holistic-systemic perspective, which considers human beings as integrated and organized wholes with needs and desires grouped into levels of a hierarchical pyramid. Starting from the lower needs (such as food), which are common to all living beings, the author states that the higher, the more specifically human they are. In this respect, Maslow believes that the tendency towards a healthy psychological state—in which higher needs are relatively satisfied—is inescapably linked to the attraction for the novel, the mysterious, the chaotic and the experimentation with the unknown (taken as a pleasant challenge). Consequently, the monotony of daily life and the routine of work eventually sicken intelligent and capable people, causing "intellectual starvation" [56]. It follows that the healthiest societies are those that allow their inhabitants to manifest their highest capabilities and goals; in other words, those that provide space for self-actualization. Maslow defines self-actualization as the full use of the talents, capabilities, virtues and potentialities that enable a person to live a full humanity. This is not achieved through intellect and rationality alone (as Aristotle postulated with eudaimonia), but requires full emotionality. In this framework, the view of human nature as inherently dark, selfish (even malicious and cruel), whose impulses must be constantly curbed, is rejected. On the contrary, the author argues that the natural tendency to realize the highest aspirations should be encouraged, leading to a society of people who cultivate good character through self-actualization. The fundamental aspects of self-actualization are self-determination, i.e., the ability to make one's own decisions, and-from there-the ability to express personal creativity.

Maslow's reference to the different types of needs that motivate people's behavior in organizations leads McGregor [10] to the renowned "Theory X-Theory Y" dichotomy. According to the predominant perspective, known as "Theory X", people generally dislike work and will do their utmost to escape from it. Therefore, coercive and controlling measures are inevitable. Also, programs to motivate participation in decision making are futile, as people naturally prefer to avoid responsibility and be directed instead. On the other hand, attempts to improve this picture through greater material benefits (higher pay, bonuses, holidays, etc.) have little effect, since these benefits are enjoyed outside work, with work being the "punishment" suffered for obtaining them. It follows that people will only want to perform the minimum of what they perceive as "punishment". This does not mean that economic incentives have no influence: up to a certain point they are very important. Beyond that level, higher needs related to self-actualization become more important, even though traditional jobs offer very few opportunities to satisfy them. By contrast, "Theory Y" is a management perspective arguing that organizations need to grant their workers more latitude for decision-making. The assumptions underlying its principles are:

- Work, under certain circumstances, can be a source of satisfaction.
- If workers are truly committed to a goal, there is no need for control: they self-manage.
- The degree of commitment to goals depends more on the self-actualization obtained by their achievement.
- Most workers learn to accept and seek responsibility.
- Imagination and creativity in finding solutions are widespread and not narrowly distributed in the population.

McGregor recognizes that while workers may—in principle—prefer subordination to an authority that provides "infantile security", in the long run this dependency relationship causes frustration and a sense of injustice in adults. In the medium term, therefore, being able to stand on one's own two feet and make one's own decisions is very satisfying, even if it is challenging and sometimes frightening.

The next contribution to consider is the work of Burns and Stalker [57] on "organic" organizations. Based on a study conducted in the early post-war years, these authors coined and popularized the term "organic" to refer to organizations that adopt less hierarchical authority relationships than those proposed by mainstream Administration (which they termed "mechanistic"). Organic organizations, while retaining hierarchical structures, have certain features that favor more horizontal management: greater decentralization of decisions, often made by consensus; jobs, tasks and responsibilities that are constantly redefined based on members' interactions, underpinned by fluid horizontal communication of an unstructured nature, where shared values are the key guide to decision-making.

In addition, there are theoretical contributions from prominent contemporary mainstream authors that support the viability, effectiveness and efficiency of participatory and horizontal configurations. Such is the case of Peter Drucker [1], who believes that it is possible to provide workers with opportunities to design their own ways of carrying out tasks related to their immediate environment. This encourages self-actualization and leads to the release of motivational energies that mobilize

knowledge and experience in the area where workers are experts, considering that today the vast majority of them possess the skills and abilities to make their own decisions. Drucker also discusses the advantage of working with self-managed teams rather than relying on functional design. The latter gives a lot of clarity about the task, but little about the work as a whole; it is also not receptive to innovation, as it only aims to do a little better what it already does. Self-managed teams, on the other hand, are much more flexible as they follow the maxim "fixed mission-changing tasks", where all members know and feel responsible for the work of the whole. In return, it places high demands on responsibility and self-discipline, which can be met if the right environment is created.

4.2. Contributions from the 1980s to recent years

Henry Mintzberg, another prominent mainstream figure in contemporary management, recognizes some situations in which horizontal management configurations are effective, although in general he distances himself from them. In fact, in his most famous work published on the edge of the 1980s [58], he states that bureaucracies have an irreconcilable conflict: what is good for the technical system (production) is bad for the social system. Therefore, a significant reduction in the horizontal and vertical specialization of tasks (i.e., their horizontal and vertical "enrichment") is justified only to the extent that the gains in motivation and productivity are greater than the losses from less specialization. On the other hand, less bureaucratized and more "organic" structures, which Mintzberg calls "adhocracies", are ideal configurations only for dynamic and complex environments. In other words, attempting to project adhocracies into stable environments creates productive inefficiencies compared to bureaucracy. In a later work, Mintzberg [59] includes the "missionary" organization, in which members' identification with the organization's goals is so strong that high levels of psychic and emotional contributions are elicited from them. In this way, organizational dynamics share a sense of common destiny, and the work of coordination is undertaken by most individuals, like a cricket or hockey team working spontaneously towards the goal of winning. Consequently, the author considers that this configuration offers the most fertile environment for participation and horizontal management to flourish, since it allows the maximum degree of decentralization in decision-making. On the other hand, the organizations supported in this type of configuration face a limit in terms of size, since personal contact is crucial for maintaining a sense of purpose, cohesion and identification with the ideology. Therefore, the best strategy seems to be expansion through the formation of autonomous enclaves linked by the common ideology, eventually sharing resources or joint projects. Once an enclave exceeds a critical size, it splits like an amoeba to create two linked but relatively independent organizations.

Continuing this thread, it is interesting to consider what Mintzberg [59] describes as "quasi-missionary" organizations. These are organizations that are not expected to adopt a missionary configuration, but end up doing so as a result of the emergence of a strong guiding ideology that leads them to undertake an ordinary mission in a very different way. As an example, Mintzberg cites the Japanese company, particularly in the car industry, which at the time (late 1970s and early 1980s) astonished Western

analysts with the Toyota Production System. Indeed, "Toyotism" was a genuine revolution that displaced the dominant "Fordism", as explained by Womack et al. [30], who coined the term "lean" to describe this leading production paradigm. For Adler [31], lean is a "learning bureaucracy" since, on the one hand, work never stops being standardized (and standardization provides a common platform for analysis) and, on the other hand, the practice of participatory *kaizen* allows constant questioning and improvement of the bases adopted.

Another relevant contribution is that of Ackoff [15], who reframes organizations as social systems made up of smaller subsystems, which in turn make up other larger social systems. The various systems and subsystems must be mutually reinforcing if they are to achieve their respective purposes. In this sense, the only way to achieve a state of multiple and interrelated goal attainment is to adopt a participatory decision-making system. In particular, to enable the full development of the various components of social systems, people must be given the opportunity to make decisions in order to cultivate their own competences and abilities. This implies the adoption of the "principle of participation": all those affected by a decision must be involved in its definition and implementation. On the basis of these concepts, Ackoff builds his model of "circular organization," a schema of incremental horizontality that combines democracies with hierarchies, since for this author democracy and economic efficiency are interrelated dimensions.

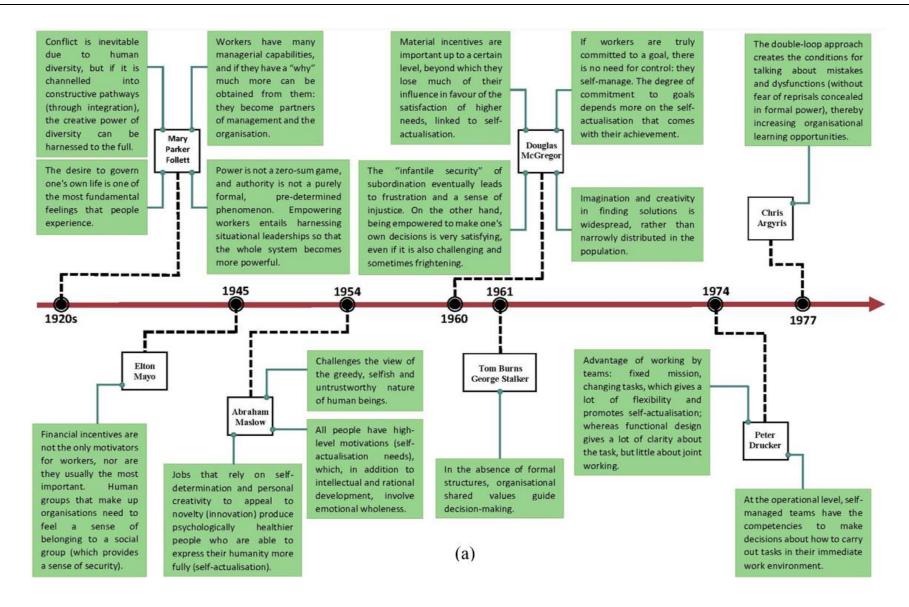
Another recognized mainstream exponent is Gary Hamel, who argues in *The Future of Management* [3] that bureaucracy is far from the "Everest" of what organizations could achieve. Indeed, job satisfaction surveys confirm year after year that few people in organizations (only about one in six) feel truly motivated and passionate about their work. This is a significant waste of human motivational energy, which implies the squandering of the creativity that all people possess to a greater or lesser extent. Thus, the proposal for the "future of management", concretely, means giving workers the freedom to manage themselves. Despite the conventional wisdom that more freedom means less discipline (and more chaos), the authors argue that control and discipline are unnecessary—or rather, counterproductive—if workers: a) are accountable for results; b) have transparent access to real-time information, understood by everyone; c) have decision-making power over all key variables in the process; d) experience results that are correlated with compensation and recognition, both individually and as a group.

At this point, the double-loop learning approach of Argyris [60] can be added to explain the proper functioning of participatory and horizontal organizations. According to this author, traditional organizations tend to avoid solving transcendental problems since facing them usually implies open confrontation with ideas strongly rooted in top management. Consequently, there is a tendency to hide the difficulties as long as possible, as such confrontation must generally be carried out by people with less hierarchical power, a situation that creates fear of formal and informal retaliation. As a result, the inability to talk about mistakes and dysfunctions makes it very difficult for the organization to learn from them. In contrast, the framework provided by more horizontal organizations creates conditions that favor constructive approaches and questioning without fear of reprisal concealed in formal power. In this way, it is possible to liberate the natural creative impulses confined by the formal hierarchy of

traditional bureaucracy, since creation is in the nature of human beings, and through creativity people affirm their humanity and individuality. Likewise, Hamel and Breen [3] emphasize that the elimination of bureaucracy does not entail the disappearance of hierarchies per se. In reality, they are transfigured, becoming natural and dynamic.

An important complementary element related to these management approaches is the notion of "concerted control" introduced by Barker [61]. He states that the ability to influence and control the behavior of organizational members through mutual horizontal monitoring is much more powerful than the Weberian "iron cage". Transparency and motivation play a transcendental role, since peers in a self-managed team can control and hold each other accountable through the public discussion of someone's behavior—which can be initiated by any member—and the pre-agreed rules. Transparent and publicly visible control, with strong reputational consequences, becomes a powerful social force that directs members' behavior toward the commonly defined goal.

Another relevant theoretical strand, this time from economics, comes from the contributions of Nobel laureate Elinor Ostrom [62,63], who has studied in detail numerous cases of common property resources that have been successfully managed by their own members, without the intervention of a state or private administration. These examples showed the remarkable creativity of people from different geographical, cultural, and environmental backgrounds in creating rules to solve their own challenges in a self-governing way. Although there is no single best combination of situational parameters, the author proposes a list of elements that greatly increase the likelihood of successful self-management of a commons resource: the eight principles that characterize sound institutions for effective and efficient commons management (these are: clear boundaries and memberships, congruent rules, collective choice arenas, monitoring, graduated sanctions, conflict resolution mechanisms, recognized rights to organize and nested units). The basis for the success of these principles lies in a reframing of human motivations: most people are not prone to adopt a rational-egoistic attitude in all situations. Rather, their behavior is variable and depends on the systemic context. That is, while there are people who ignore the rights and feelings of their peers and others who are altruistic, most are ordinary people who are capable of both, depending on the institutional framework in which they find themselves. Ergo, adherence to the eight principles greatly increases the chances that such an institutional framework will discourage rational-egoistic "free riding" and instead encourage cooperative, mutually beneficial behavior.



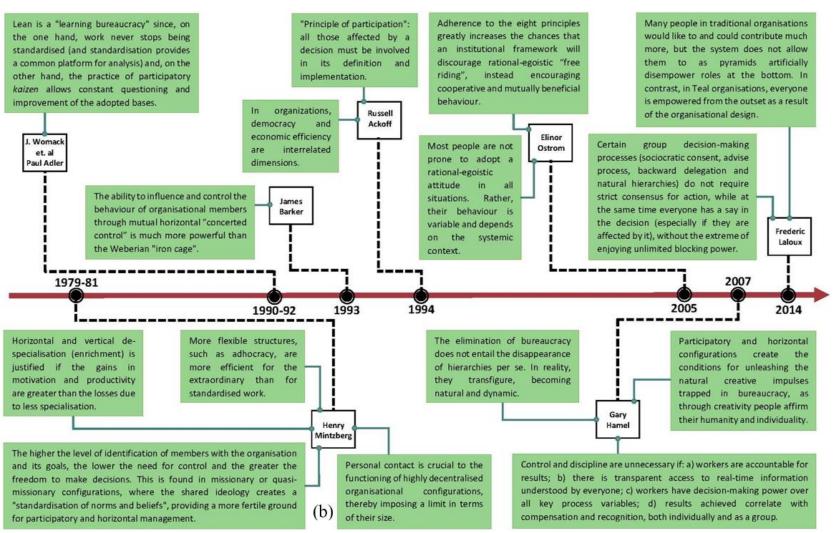


Figure 4. (a) Visual summary of the integrative review results considered in this section. The main authors and their discussed major theoretical arguments in support of participatory and horizontal management are chronologically displayed (authors between the 1920s and 1977); **(b)** Visual summary of the integrative review results considered in this section. The main authors and their discussed major theoretical arguments in support of participatory and horizontal management are chronologically displayed (authors between 1979 and 2014).

Finally, Frederic Laloux [9] states that many people in traditional organizations would like to and could contribute much more, but the system does not allow them to, as pyramids artificially disempower roles at the bottom. In contrast, in "Teal" organizations proposed by his approach everyone is empowered from the outset as a result of the organizational design based on the self-management pillar. Therefore, in addition to the typical operational tasks, teams assume joint responsibility for those coordinating tasks traditionally reserved for managers: prioritizing and setting goals, problem analysis, planning, individual and group performance evaluation, accountability for financial results (or measurable objectives), difficult decisionmaking, etc. In addition, they are often responsible for certain support functions (e.g., recruitment and strategic planning). As for the mechanisms of group decision-making, they are usually not based on simple majority democracy, but on processes that resemble sociocratic consent, aiming at the integration of different perspectives rather than the imposition of one in particular. In this sense, Laloux [9] highlights certain group decision-making processes (in addition to the sociocratic consent, the author analyzes advice processes, backward delegation, and natural hierarchies) that overcome the difficulties of strict consensus. In effect, this type of consensus requires group decisions to be strictly aligned with the wishes of all participants, almost always resulting in a chimera that drags the group into the dreaded decision-making paralysis. The proposed alternative mechanisms, on the other hand, do not require strict consensus for action, while at the same time everyone (potentially) has a say in the decision (especially if they are affected by it), but without reaching the extreme of enjoying unlimited blocking powers. To reinforce this dynamic, self-managed teams require transparency, i.e., that all information circulates freely (including financial information and the salaries of everyone).

Figure 4a,b present a visual summary of the integrative review results considered in this section. There, the main authors and their discussed major theoretical arguments in support of participatory and horizontal management are chronologically displayed.

5. Discussion

From the results of the literature review, summarized in **Figure 4a,b**, it is possible to construct **Figure 5**, which schematizes as a network the various concepts that allow the elaboration of a theoretically consistent answer to the question: why does participatory and horizontal management work? The answer to be obtained is based on the "conceptual building blocks" that make up the four theoretical axes shown in **Figure 5**: self-actualization, objectives, capabilities and monitoring, amalgamated by the joint decision-making space.

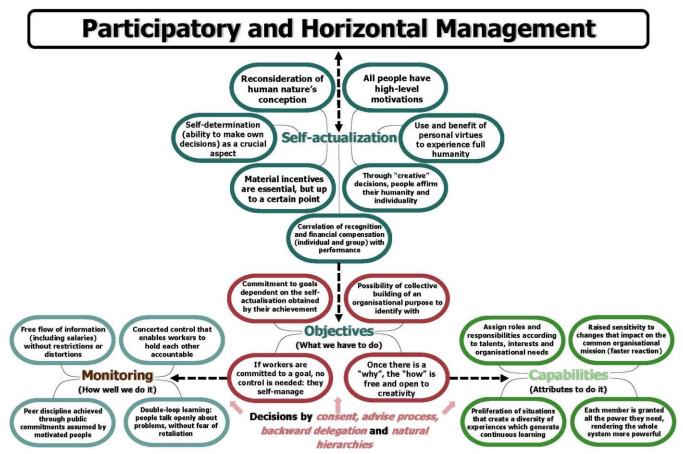


Figure 5. Schematization of a network of conceptual blocks (grouped around the axes self-actualization, objectives, capabilities and monitoring) that explain the sustainable viability of participatory and horizontal management, and allows the elaboration of a theoretically consistent answer to the question: why does it work?

5.1. Self-actualization axis

Figure 5 begins by showing that participatory and horizontal management approaches are underpinned by the notion of self-actualization, which first and foremost allows for a sharp reconsideration of the general conception of human nature: from the traditional rational-egoistic framework to a more complex and multidimensional perspective in which, for a significant majority of people, higher-level motivations and concern for the situation of others play an essential role.

In this way, purely material incentives prevail only up to a certain level, beyond which they give way to opportunities to use and harness the talents, skills and virtues that each person possesses in order to achieve a full projection of one's humanity. In this framework, an overarching aspect is found in self-determination (the ability to make one's own decisions), identified by several authors [1,3,9–11,59] as a nodal element of human behavior.

Indeed, the drive for self-actualization that is inherent in all human beings is the primary component that holds together the other core arguments for the long-term viability of participatory and horizontal management. From its early and approximate visualization by Mary Parker Follett in the 1920s, through the consolidation of the concept with Maslow (originally in 1954) and McGregor [10], to more contemporary

writings such as Gary Hamel [3], self-actualization can be identified as the "emotional and spiritual reward" that most people strive for in all aspects of life, including work.

This first theoretical axis is linked to organizational life by establishing a close relationship between organizational objectives and people's self-actualization while also considering the importance of economic rewards deemed "fair". At this point in the argument, the question arises: how can we guarantee that these autonomous and "own" individual decisions, aimed at the expression of "full humanity", go in the same direction as the organizational goals? To answer this question, we need to focus on the next theoretical axis in **Figure 5**: "Objectives".

5.2. Objectives axis

As McGregor [10] aptly observed, people's commitment to an organizational goal is directly proportional to the self-actualization they obtain from achieving it (and, to a lesser extent, the monetary gain, which still needs to be secured). So how is it possible to link self-actualization to goal achievement? By allowing the core of selfactualization, self-determination, to flourish. Indeed, by allowing people to decide for themselves on broad organizational goals (for example, by allowing a collective forging of the question about "what we need to do"), they are granted the valuable opportunity to manifest their "own and full humanity" in that domain. This consolidates a virtuous circle of identification between personal self-actualization and organizational goals, as the latter become one of the main vital spaces in which the former can be reinforced and fulfilled. In other words, people strive hard to achieve goals because they make transcendental decisions about them (and thus identify them as a significant part of their "full humanity"); or, if they make transcendental decisions about the goals to be pursued, they will manifest their "full humanity" in those decisions—seen as "their own"—and will strive to achieve them. Now, the next piece of the explanatory picture relates to the challenge of collective decision-making, as each person's drive for "self-determination" must be reconciled with the context of achieving common organizational goals.

The opportunity to participate in the collective shaping of organizational objectives, in an environment of participatory and horizontal management, creates the spaces and dynamics in which people can forge—and take ownership of—the collective purpose. This process of participation and joint construction strengthens the identification between people's self-actualization and the organization's broad purpose. In turn, this link consolidates the commitment of the members to their common goals, making roles devoted exclusively to control and monitoring redundant (or even counterproductive).

Therefore, the process of collective construction of organizational purpose and objectives that boost opportunities for self-actualization determines a "why", leaving the "how" (i.e., the concrete steps to achieve them) to the horizontal and creative debate of the group. In turn, this arena of exchange and co-construction constitutes a new terrain for each individual to find opportunities for personal imprinting within pluralistic dynamics. Complementarily, **Figure 5** depicts this conceptual block as the bridge to the theoretical axis of "Capabilities".

5.3. Capabilities axis

Once the overall purpose of the group has been defined and the collective action plan has been outlined, the challenge is to congregate the skills and attributes needed to strive for the objectives. At this point, the allocation of roles and responsibilities requires a new dynamic of horizontal interaction, since the dismantling of traditional hierarchical structures and their rigid definition of work spheres allows people to select the different roles to which they feel attracted (which constitutes an additional field in which to fulfill their self-actualization impulses).

It also seeks the necessary match between the needs of the organization and the best contribution that each individual can make. The promotion of work environments with these characteristics—emancipated from the recurrent routine—encourages the proliferation of diverse and heterogeneous experiences, creating a fertile ground for constant learning and the strengthening of work polyvalence. In short, a work dynamic with these qualities grants each member all the power he or she needs and demands, resulting in synergies that further strengthen the system as a whole. Such a system also acquires a greater sensory capacity, since a greater number of motivated people become attentive and considerate of contingencies that could have an impact on the collective mission, which is valued and promoted by the group. This aspect of horizontal management is closely linked to the fourth theoretical axis shown in **Figure 5**: "Monitoring".

5.4. Monitoring axis

To be sure, the horizontalization of management is not equivalent to the elimination of controls; on the contrary, it implies their generalization. In other words, through "concerted" horizontal control, whereby each member can request accountability for publicly assumed commitments (facilitated by the free circulation of the organization's economic and financial information, including salaries and compensation), the workers' collective will be able to know how well things are being done to achieve the valued objectives. In addition, frontal and in-depth dialogue on existing organizational problems, as promoted by the double-loop learning framework, is encouraged and facilitated, since retaliation covered by formal hierarchical power is no longer possible. Such a scenario of peer pressure (for whom the success of the organization generally means both economic and self-actualization rewards) is very disciplining for potential free riders. As a result, the possibility of falling into collective self-deception, where all commitments tend to the minimum at the expense of the shared organizational future, is significantly reduced.

5.5. Joint decision-making space

Finally, another fundamental piece of this explanatory framework is the process by which collective decisions that generate robust collective commitments from workers are reached. Undoubtedly, this point arouses strong reservations among some Administration thinkers, who believe that it will inevitably lead to a proliferation of "debating clubs" mired in deliberative paralysis. However, real experiences, documented in different times and places, repeatedly show that groups of horizontally empowered people, motivated and identified with the organizational purpose, manage

to develop dynamics of collective interaction that, in most cases, succeed in integrating controversial positions in order to move on to the field of action [1,9,45,64–66]. Indeed, traditional majority voting systems have evolved towards dynamics that are more inclusive of minorities, which in many circumstances may be those with the most expertise on a given issue.

Thus, **Figure 5** shows that collective decisions involving the "Objectives", "Capabilities" and "Monitoring" axes are underpinned by tried and tested mechanisms specifically designed for horizontal circumstances: the sociocratic consent, the advice process, the backward delegation, and the dynamic and natural hierarchies.

5.6. Limitations of participatory and horizontal approaches

This integrative review of the literature identified some relevant limitations of participatory and horizontal management arrangements. Despite their apparent advantages, some of the reviewed literature indicates that these arrangements present difficulties in replacing bureaucracy due to the following challenges:

- Starting with considerations related to the efficiency of production processes, compared to their alternatives, bureaucratic schemas ensure more order and clarity in terms of the tasks to be performed by each worker.
- Excessive vertical and horizontal "enrichment" for such tasks is therefore not advisable: it is justified only to the extent that the gains in motivation and productivity outweigh the losses resulting from less specialization.
- Thus, there may be economic arguments that less bureaucratized (and more "organic") structures are more efficient only in situations where the environment surrounding the organization is complex and dynamic, but not in all other cases.
- On the other hand, there may be a limit to the scale to which participatory and horizontal management can be applied, since personal contact, where people can give a name to every face, is crucial to maintaining cohesion, motivation and the ability to coordinate efficiently in a de-bureaucratized environment (although there are examples of large organizations, such as those adopting New Style of Relationship or RenDanHeYi, that have challenged this notion).
- Finally, what is arguably the most important limiting factor: the herculean cultural change needed to make participative and horizontal arrangements more acceptable. Indeed, several authors mention the resistance of managers, who perceive such arrangements as an erosion of their authority, that at the same time demand more competence and responsibility *vis-à-vis* their subordinates.
- In the same sense, many workers may appear to prefer the "infantile security" of being managed (however, it is well documented in the organizational literature that this dependency relationship leads to frustration and a sense of injustice in adults).

6. Conclusion

Administration is an academic field that is showing signs of maturity, with a theoretical and practical mainstream that has been consolidated around Weberian bureaucracy since the foundational writings of Taylor, Fayol and Weber. However, there are numerous examples of bureaucracy reaching its limits in terms of the new

advances it can offer to the discipline. In this sense, counter-examples to its paradigm ("anomalies" in Kuhn's sense) are accumulating, which are also diverse in terms of the time and space in which they have emerged, as shown by the extensive historical overview of successful real-world management arrangements that constitute concrete empirical examples.

However, the shift to a paradigm that transcends it (while retaining all its virtues) is still a long way off, since it requires a consistent alternative theoretical corpus that gives academics and especially practitioners the confidence to adopt it. On the other hand, the difficulty of this change should not make us lose sight of its necessity.

In this sense, the article intends to make a contribution—especially on the theoretical facet—that points towards the future possibility of consolidating a paradigm that transcends the current bureaucratic mainstream.

To this end, an integrative bibliographical review was carried out, analyzing hundreds of articles and books by authors from different epochs, in order to identify the most important studies on heterodox forms of organization, including reflections and conceptual contributions on alternatives to the classical bureaucratic arrangement. Subsequently, the most relevant authors and texts were selected on the basis of three inclusion criteria: significant impact on the science of Administration, broad temporal coverage, and specific contributions that reveal themselves meaningful for the research objective of the article. In this way, ideas, constructs and theoretical concepts corresponding to 14 studies from various periods of the discipline between the 1920s and 2014 were selected, as displayed in **Figure 4a,b**.

The realization of this exercise allowed the intertwined combination of all these elements to arrive at **Figure 5**, which represents a network of conceptual blocks grouped around four axes for the theoretical explanation of the sustainable viability of participatory and horizontal management: self-actualization, objectives, capabilities and monitoring. This schematization of conceptual block networks provided a fundamental analytical material for the development of a theoretically consistent answer to the question: why does participatory and horizontal management work?

Thus, Section 5 unfolds a somewhat complex yet logically robust theoretical narrative as to why the practice of alternatives to bureaucracy, based on participatory and horizontal management, is expected to prove viable, sustainable, effective and efficient. The concept of self-actualization—applied to all people, including those at the "bottom" of a typical organizational pyramid—plays a nodal role. Alongside the importance of material compensation, self-actualization represents an "emotional and spiritual reward" that every human being strives for. In general, most people working in pyramidal organizations seek to satisfy this higher-order need outside the work environment, as bureaucracy artificially disempowers them, providing little opportunity to exercise the core element of self-actualization: self-determination.

However, as discussed throughout this article, it is possible to consider alternative organizing paradigms in which workers are empowered to make decisions about organizational goals by establishing correlations with self-actualization for their achievement. In this way, the motivational and creative energies that are to a greater or lesser extent present in all workers become unleashed, making available all their attributes that were previously caged within the rigid functional definitions of bureaucracy. On top of this, additional energies are mobilized to carry out all the

necessary monitoring feedback that determines how well the collectively valued organizational objectives are being achieved. Moreover, all the basic decision-making processes that make organizations work are based on "social technologies" that promote participation and horizontality (sociocratic consent, backward delegation, advice processes, etc.).

Thus, after more than 100 years of the science of Administration, it should be theoretically clear why participatory and horizontal management schemas work, which opens up prospects for a paradigm shift that becomes increasingly apparent. However, as other more developed scientific fields have shown, these shifts take several decades, as they involve individuals with beliefs and social positions that are difficult to abandon. In this sense, several of the selected authors (e.g., Ackoff, Hamel or Drucker) have suggested that the exit from the bureaucratic paradigm is in the hands of managers who are logically hesitant to make such a transcendental leap, as it implies renouncing a significant part of their formal power. However, the difficulty of this change does not negate its increasing necessity, in the face of the current social and environmental sustainability challenges—which, at the same time should maintain economic efficiency—that our societies are confronted with.

Therefore, it is possible to envisage proposals for future research along the lines proposed in the article. Firstly, it is of interest to deepen the understanding of the mechanisms of group decision-making that enhance participation and horizontality, such as sociocratic consent. In addition, and related to this, it would be an important contribution to gain a better understanding of organizational dynamics with "natural" hierarchies in which informal power plays a preponderant role. Finally, a central dilemma to be explored in this type of configuration is the challenge posed by the—a priori—limited possible organizational size and the ways to overcome it.

It is hoped, therefore, that the conceptions presented in this article constitute a useful contribution to research programs that focus on the possibilities offered by more participatory and horizontal paradigms of organizational management, i.e., with the capacity to benefit from the full potential of human diversity.

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