Bottom-Up Collegiality, Top-Down Collegiality, or Inside-Out Collegiality? Analyses of Multilevel Networks, Institutional Entrepreneurship and Laboratories for Social Change

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Abstract This paper argues that the analysis of multilevel networks (AMN) is useful to understand politics, institutional entrepreneurship, and social change. AMN helps identify multilevel relational infrastructures (in particular multilevel social status) on which institutional entrepreneurship depends, especially in collegial oligarchies as laboratories for social change. In heavily bureaucratized societies, these laboratories take various forms such as bottom-up collegiality, top-down collegiality, and inside-out collegiality. We argue that, in an era of vital transitions, one of the main challenges for social network analyses is to use AMN to observe these collegial oligarchies and to model and understand social (in)capacities to build alternative multilevel relational infrastructures promoting social change. This challenge leads to another: that of understanding the conditions under which a form of collegiality is selected by contextualizing institutional entrepreneurship and its multilevel relational infrastructures. The paper theorizes organized mobility and relational turnover as important dimensions of this contextualization of institutionalization processes.

Keywords Analysis of multilevel networks · Institutional entrepreneurship · Bottom-up collegiality · Top-down collegiality · Inside-out collegiality · Multilevel relational infrastructures · Organized mobility · Multispin

1 Introduction

Historical transitions require new institutions. In this paper we first suggest that analyses of multilevel networks (AMN) provide a new understanding of institutional entrepreneurship. AMN offers models and methods for research designs based

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on linked inter-individual and inter-organizational networks in which each of the superposed networks represents a level of collective agency. Individual members of one network belong to organizations of the other network through affiliation ties. This structural "linked design" [1] extends the sociological concept of duality [2] in which individuals and groups co-constitute each other. Generalizations of this formalism [3] craft a "formal theory of interpenetration" of levels. Articulation of distinct levels of action can be partly accounted for, beyond bipartite structures, with statistical analysis of such datasets [4, 5]. Resources exchanged at each level are of different types. Figure 1 represents a static multilevel network based on this design.

We then show how AMN helps understand institutionalization processes in organized settings by identifying levels of collective agency as either bureaucratic or collegial, and key players or institutional entrepreneurs as active at two (or more) levels of agency simultaneously. They build and maintain multilevel relational infrastructures (MLRIs), in this case multilevel forms of social status. Such political processes and their negotiations are never routine, and therefore necessarily collegial. However, in a bureaucratized organizational society [6], collegiality is always combined with bureaucracy. We identify three multilevel combinations of bureaucracy and collegiality: bottom-up collegiality, top-down collegiality, and inside-out collegiality. Each characterizes a different kind of institutional entrepreneurship in a multilevel context. An example, that of the emergence of a new European institution (the Unified Patent Court), is used to illustrate top-down collegiality in institutional entrepreneurship. In this setting, a collegial oligarchy of judges with multilevel status, i.e., particularly active simultaneously at two levels of agency, i.e., a discrete cluster of "vertical linchpins" who are big fish in big ponds at the national and transnational levels, negotiates and imposes its conception of a new intellectual property regime for European economies.

One of the scientific issues currently challenging social scientists studying social processes in dynamic multilevel networks is that institutional entrepreneurship has determinants and must be contextualized. Building and maintaining MLRIs is not a collective adventure that takes place in a vacuum. We argue that this contextualization must be approached with (and AMN models enriched with data on) at least two determinants of social processes in general: organized mobility of

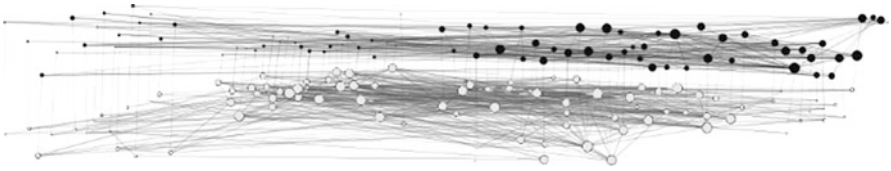

Fig. 1 Big/little fish in big/small ponds: A multilevel network based on linked design. In these superposed networks, white nodes represent individuals, black nodes represent organizations, and ties between white and black nodes are affiliation ties of individuals to organizations. The size of the nodes represents their centrality scores in the network of their level of collective agency

institutional entrepreneurs and relational turnover in their networks (OMRT) at each level of collective agency.

A theory of the effect of OMRT on institutionalization requires intuitions on organized mobility of institutional entrepreneurs and relational turnover in their multilevel networks and inspiration for hypotheses are drawn from the metaphor of the "multispin." In conclusion we argue that, by illuminating (understanding and explaining) the effect of OMRT and its dynamic invariants on the process of institution building, AMN should not only help model social (in)capacities to build new laboratories for social change but also help us understand how to keep this process accountable and democratic.

2 Politics, Analysis of Multilevel Networks, and Multilevel Relational Infrastructures

Interdependencies between actors are too important in social life to be left unorganized, and actors and institutions struggle to organize them. Institutions are among the most venerable objects of study in the social sciences [7]. To simplify, institutions can commonly be defined as rules, norms, and beliefs that describe reality for actors, explaining what is and is not, what can be acted upon and what cannot, and how [8]. Contemporary thinking about the emergence of institutions is dominated in sociology by a variety of neo-institutional perspectives focusing on how norms promoted by institutional entrepreneurs elaborate taken for granted cultural categories, classifications, rules, and procedures that include beliefs and codes stabilizing action into routines [9]. Such a perspective has been shown to lack structure and agency [10–12].

Neo-structural sociology revisits this process by opening it to individual and collective agency, including work of organizing interdependencies. Social network analysis is then used, together with other methods, for tracking and understanding actors' efforts to manage their interdependencies in contexts of cooperation and/or competition where interests diverge, conflicts flare up, constraining but often fragile and polynormative institutions are inherited from the past. As such it avoids reification of the notion of structure and helps in further developing a sociological theory of collective action and of the management of cooperation dilemmas [13–15]. Intentional, reflexive, and strategic behavior endogenizing the structure, not blind reproduction of underlying structure, are parts of the behavioral assumptions of this approach, including the use of organizations as "'tools with a life of their own" and "dynamic conditioning fields" [16], i.e., as political communities in which new institutions are constructed.

For social scientists, finding the links between structure, multilevel position, and collective agency in an organizational society is therefore still a complex task if it has to be carried out in a meaningful way, i.e., in a way that makes normative controversies, conflicts, and politics more intelligible. To do this, it is important

to take into account the vertical complexities of the social world. This means differentiating between levels of collective agency and articulating their dynamics in measurements and models. Selznick's "dynamic conditioning field" can thus be considered as a contextual effect and seen as a precursor to contemporary lines of research on multilevel stochastic actor-oriented models [17], multilevel exponential random graph models [5] and multilevel blockmodeling [18–20].

For sociologists accounting for these vertical complexities, rule-making is a complex multilevel political processes in which it is not always easy to identify who is responsible for the promotion of which rule, for example for successes or failures of a transnational regulatory regime. Observations of regulatory activities show that individuals with specific structural characteristics punch above their weight in terms of regulatory activity by precisely being active at two levels of management of interdependencies (advice and contract, for example) at the same time. Presence, participation, and decision-making activity at two or more levels simultaneously allow for cross-level influence at each level separately and, via such "vertical linchpins" [11], jointly. Whether or not such actors are accountable to others in similar ways at different levels, whether or not the rules that they promote are recognized as public goods, are important questions that theory and methodology should help address. Often rules are made discretely, and it takes very sharp stakeholders, experts, non-governmental organizations and journalists to evaluate them, with much regulatory inertia built into the system, much disagreement about whether or not a rule "works" in terms of protecting particular interests—especially the interests of the weakest parties.

In sum the construction and/or maintenance of multilevel relational infrastructure become a step towards coordination within and between levels. Identifying some of the social realities for which multilevel networks are indicators leads to the notions of overlap and complementarity between levels. But it also shows that these levels co-constitute each other via the social construction of MLRIs. These MLRIs are vertical and horizontal differentiations between members (for example forms of multilevel social status of vertical linchpins and multilevel social niches) that are used to influence, from one level, events and processes at other levels. AMN is helpful in showing whether and how MLRI-based complex dynamics and coordination (between individuals, between organizations, and cross-level between individuals and organizations driving each other's evolution) are the laboratories of institutionalization processes and social change in the organizational society.

Dynamics of such multilevel systems of collective agency assume that the evolution of networks at one level of collective action is influenced by that of another level of collective action, and the other way around in recursive ways [1, 21–23]. Such dynamics can be considered to be the outcome of a meta-process bringing together both individuals and organizations, in which the evolution of one level explains in part (in causal terms) the evolution of the other. Level 1 relationships can emerge as a result of the emergence of level 2 relationships. Actors of level 1 may be able under certain circumstances to change the structure of level 2, especially by bringing MLRIs into the picture. MLRIs represent at the same time levers of

institutional entrepreneurship and the locus of co-constitution between levels. This is where the two superposed systems of collective action co-evolve and adjust.

As indicated, new families of models are needed to account for such dynamics. One family of models could be a multilevel extension of Snijders [24] model of dynamics of networks, using characteristics of level 2 network as set of exogenous factors in the evolution of level 1 network, and the other way around. At each step of the description of these dynamics at one focal level, information from other, lower or higher, levels must be integrated in the model. The co-evolution of both level networks is "added" to the co-evolution of behavior and relational choices. In terms of model specification, new "independent" variables from inter-organizational networks operate at the inter-individual level, and vice versa. It is perhaps also worth extending Snijders' multilevel version of the model of network dynamics, for example by introducing dual alters or induced potentials, i.e., extended opportunity structures [25], into this controlled formalism. A problem of "synchronization" between levels [26] also emerges. Synchronization is a task of scheduling and coordinating superimposed interpersonal and inter-organizational forms of collective agency, over time and at the cost of one of the levels. Social sciences are currently struggling to measure and model such synchronizations of time scales (short term, long term), especially in political processes where their manipulations can constitute an important competitive advantage.

AMN and MLRIs, especially when they are dynamic, will help better understand politics and multilevel governance in the organizational society, in which superposed levels of collective agency operate, each following their own logic of coordination, while each level is also part of the context of the other levels. This is not trivial since these different logics can be, for example, bureaucratic vs collegial [27–29].

3 Bottom-Up Collegiality, Top-Down Collegiality, and Inside-Out Collegiality

Indeed, organization sociology always starts from an analysis of work, understood in a broad sense as either routine or innovative. From this perspective, each level can be characterized as either predominantly bureaucratic or predominantly collegial [28]. In this dual logics approach, the bureaucratic model is meant to organize collective routine work, concentrate power, command and control unobtrusively at the top, and depersonalize interactions among members. The collegial model is meant to perform collective innovative work with uncertain, unpredictable output and help rival peers self-govern by trying to build agreements and by using private, personalized relational infrastructures to enforce these agreements. Because there are always non-routine tasks to be performed, including that of normative choices and institutional entrepreneurship, organizations are redefined as necessarily combining the two idealtypes for social discipline and productive efficiency, each with its

formal and informal dimensions[1]. Both models of organization are needed together in communities, workplaces, markets, and society, and their articulation is under-theorized and under-studied. These combinations of idealtypes must be reassessed in terms of their articulation in real life companies, associations, cooperatives, public authorities, etc. where they are perceived as legitimate or where their legitimacy is contested.

A stratigraphic approach to organized settings [28] shows that "collegial pockets" as social niches capable of collective agency survive in dominant bureaucracies, although with very different and unequal levels of power in regulatory struggles: for example executive suites, professional departments, and workers' trade unions. These collegial levels survive and operate in large bureaucratized and complex organizations when their members are able to come together and learn to defend their regulatory interests. Here AMN shows how the stratigraphic meeting of bureaucracy and collegiality in what we call bottom-up collegiality and top-down collegiality can use MLRIs to strengthen or undermine social participation in organized collective action.

After two centuries of bureaucratization, collegiality as a generic form of organization is really a bottom-up type of collegiality [27] in which collegial pockets of peers—always characterized by oppositional solidarity challenging for incumbent rulers—try to build multilevel relational infrastructures and a presence in the levels of the bureaucracy in which decisive regulation takes place, including the executive level. In the predominantly bureaucratized contexts of contemporary societies, collegiality—where it still exists—is therefore more or less managerialized. Observations of how both models can complement and co-constitute each other in the sense that they drive each other's evolution are provided in recent research. For example, focus on bureaucratic rotation of peers, a process that helps bureaucracies achieve stability from internal movement, provides a first empirical illustration of this dynamic combination. The case of a corporate law firm rotating associates among partners to achieve a balance of powers between rainmakers and schedulers struggling to regulate the organization illustrates this form of combination [10].

Because this combination of logics takes place in an already bureaucratized society, bottom-up collegiality, for example of professionals or trade union members, is often reshaped, and often neutralized, by the bureaucratic ruler, who transforms it into top-down collegiality [27]. The latter is a form of patronage characterized by collegial oligarchies composed by the ruler on a clientelistic basis. Top-down collegiality applies Selznick's [16] cooptation bringing stakeholders into policy-making bodies, but forcing them to turn to this ruler (and to no one else) for help. MLRIs are thus often used by top-down collegiality and AMN is currently being used to provide efficient tools for studying them (for example [28, 29]).

[1]To avoid a frequent misunderstanding it is important to stress that collegiality is not the informal dimension of bureaucracy but the organizational idealtype orthogonal to that of bureaucracy. Both bureaucracy and collegiality have their own formal and informal dimensions, their own strengths and weaknesses or vicious cycles.

In such dynamics of multilevel forms of organized collective agency, one particular and contemporary technological evolution deserves special attention for its social implications. One of the most phenomenal contemporary innovations is the digitalization of interactional and relational life with online social networks. In our view, these online networks boost the bureaucratic systematic capacity to monitor, reshape, and routinize collegial pockets, the very core makeup of collegiality: personalized relational activity and MLRIs. We call "inside-out collegiality" the combination of the two logics in which bureaucratic digital framing, parametrizing, monitoring and control of private personal relationships (made transparent to owners of the platform) shape collective agency in order to strip collegiality of its oppositional solidarity. In that sense, inside-out collegiality not only strengthens neo-liberal individualization and flexibilization of labor markets but threatens institutional entrepreneurship and the political process as defined above.

The struggle and co-constitution between the two idealtypes thus takes a dramatic turn. Digitalization as contemporary bureaucratization turns the bottom-up collegial model "inside out," deepening bureaucratization of collective action and society [30]. Freedoms and privacy, oppositional solidarities, and capacity to innovate are deeply threatened by what amounts to using organizations as tools for imposing new forms of collective responsibility and for further dividing societies between the many and the few [31]. Struggles to find new forms of collegiality in cooperatives, in the commons and in more distributed uses of platforms, such as new peer-to-peer innovations, resist such developments and would benefit from better knowledge of dynamics of multilevel networks in new forms of organized collective agency.

4 An Example of Top-Down Collegiality in Institutional Entrepreneurship

An example can be provided in a study of the emergence of a new European intellectual property regime via the construction of a transnational court, the European Unified Patent Court (UPC) [32]. This court is considered by European industries with patents at the core of their business model as important to strengthening a contemporary European knowledge economy, including promotion and protection of innovation. The construction of this institution requires institutional entrepreneurship involving individuals (professionals), organizations, and governments. "Harmonization" of a variety of national legal frameworks has required MLRIs for coordination between networks of individuals, networks of organizations, and cross-level coordination between networks of individuals and organizations. Neither individuals, nor organizations, nor governments could access or mobilize, on their own and at the right time, all the resources that are needed to be efficient in this institutionalization process. Structuration at one level drove structuration at the other, often in conflicting and unequal ways. Time to adjust and adapt was available to some, but not to others in dynamic and multilevel political construction.

Top-down collegiality accounts well for the construction of the UPC. With help from Brussels bureaucrats and from a professional association of corporate lawyers, a powerful, public-private European agency, the European Patent Office (EPO), sole regulator of intellectual property at the European level in the absence of a transnational court, a collegial oligarchy of national judges specialized in patents was selected as patent experts and assembled at the so-called Venice Forum, a private field-configuring event. Based on this top-down cooptation, a core group among these judges was then promoted as an ex ante leadership into a collegial oligarchy that was able to define the Rules of Procedure of the future UPC. They were punching above their weight in the regulatory process of harmonization of divergent national legal frameworks into a single body of rules under which the future institution would operate. The bureaucratic ruler in Brussels allied with EPO operated top-down through a form of patronage, selecting judges with strong multilevel status or promoting others to this status. This top down selection of a collegial oligarchy of ex ante leaders was instrumental for the development of the project, neutralizing in particular civil society actors opposed to the ways in which patents are used in contemporary capitalism, i.e. as financial instruments paradoxically undermining open science and increasingly innovation itself. Contemporary institutions are increasingly designed, operated and evaluated by such top down collegial oligarchies.

One of the problems for such politics is precisely a problem of coordination of the regulatory processes that occur at one level with the same processes occurring at the other levels, i.e., "harmonization" of different time frames, sources of normativity and governance within and across levels. How this takes place is still not very well known in detail and can be investigated with AMN. Today, there are no tools for evaluating the vast dynamic and multilevel worldwide rule-making activity in any comprehensive way. New institutions arise when organized actors with sufficient resources see in them an opportunity to realize interests that they value highly [33, 34]. These "institutional entrepreneurs" struggle over which institutional arrangements to select for the collective. MLRIs and vertical linchpins driven by top-down collegiality in superposed levels of collective agency are thus key to policy- and rule-making is all domains of life: water management, food, health and safety, transportation, etc. An unknown number of discreet collegial oligarchies acquire the right kind of structural, cross-level position in such multilevel governance systems and create regulatory regimes that are not accountable to the public.

In particular, institutional entrepreneurship requires a global vision of this multilevel system. Actors at different levels do not have the same resources and capacities to build this vision and to promote and protect their regulatory interests. In regulatory competition between strata of collective agency (local, national, international), the issue of how formal and informal knowledge networks and rule-making behavior influence each other converge or diverge in terms of building institutions that will be considered to be legitimate, this issue is thus a crucial problem of dynamics of multilevel networks. The latter co-evolve with normative action taking place in several superposed political arenas, whether public, private (closed), or a mix of public/private, and are very complex to grasp. Usually,

transnational private regulation that has been spreading globally pretends that it solves the problem of this competition between levels and stakeholders by providing flexible guidelines, a general normative baseline that is adaptable to local situations via subsidiarity, thus helping each level protect its regulatory interests as it sees fit. However these rhetorics are part of the process and need to be factored into the analyses as well, thus requiring dynamics of multilevel networks to combine structure, culture, and agency.

5 The Challenge of Contextualizing Multilevel Networks: Organized Mobility and Relational Turnover

Building and maintaining MLRIs and institutions is not a collective adventure that takes place in a vacuum, but in Selznick's [16] dynamic conditioning fields. To understand MLRIs and their role in synchronization of levels of collective action, it is useful to see them as determined in part by organizational mobility of members at each level and by subsequent relational turnover in their respective networks (OMRT). The word "organized" is used to qualify mobility because both social actors and the social system create paths and rules for movements and careers (for incoming, rotating, reshuffled, promoted, demoted, outgoing actors) that are not allowed to be random [35, 36]. Multilevel positioning can be complex because mobility in turn produces relational turnover for these members and this turnover is managed by the creation of the new relational infrastructures, for example specific forms of multilevel social status. Efforts to synchronize the temporalities of the levels create the energy for more intra- and inter-organizational mobility and controversies. Synchronization costs must then include efforts spent to position oneself in the dynamic conditioning fields at the different levels of social space so as to be able to build or maintain MLRIs. Incurring synchronization costs will be rewarding (in terms of managing constraints, learning, making one's voice heard in controversies, and regulation) for some players; for others, who are unable to capitalize on social resources thanks to the maintenance of such multilevel relational infrastructures, they will amount to sunk costs.

Actors can experience OMRT as new contextual constraints and opportunities, especially as possible emancipation from constraints imposed by prior affiliations, or as networks to nowhere, or as opportunities to introduce organizational change by bringing in new members. To some extent, institutional entrepreneurs attempt to use OMRT to reshape this multilevel structure—often with unexpected consequences. Such dynamics are not visible enough, for example, in current studies of social inequalities. A dynamic and multilevel network approach to social life changes the measurements of these socio-economic costs precisely by introducing more complex and systematic positioning, mobility, and relational turnover into the picture of management of inequalities.

This assumes that some uses of MLRIs such as multilevel social niches and multilevel status (for example vertical linchpinship) are both building blocks for cross-level synchronization and instruments of restructuration attempts across levels. The connection between mobility and relational turnover is often explored in part and in depth in specific areas of social life. Often overlooked in the literature are the general effects of this systematic, recursive, and transformative link between the two realities (mobility across systems of places and relational capital) and its implications for social life. There are connections between these movements, as actors switch places in these circuits, and change—at least in part—their normative choices and respective sets of relationships, i.e., their respective relational capital. There is also an effect of the latter changes on the evolution of the system of places itself, an evolution that is only visible if places are not considered as purely contextual and exogenous, but as accumulated by actors—and thus as endogenous in the mechanisms under examination and models that account for them. Combining mobility in loops [35] and co-evolution of multilevel networks and behavior [37] helps make institutional entrepreneurship and OMRT structuration, with their multilevel dynamics and associated synchronization costs, measurable, and more generally redefine the social costs of living in an organizational and market society.

6 Multispin for Contextualizing Multilevel Networks

Whether physical (for example through migration) or social or both, these articulated movements and changes represent important determinants of social structure, order, and inequalities in the organizational society. They are created by the social organization of these *milieux* and end up, under conditions that remain to be spelled out, restructuring these *milieux*, promoting some members in terms of ability to define new norms, and pushing others out of the regulatory process.

This is where an overall theoretical link is needed between OMRT as forms of contextualization of networks, MLRIs, and organizational analysis of collective action. We propose, as an initial step, a guiding metaphor for this link in the picture of a multilevel spinning-top, or "multispin" (see Fig. 2). This metaphor is too rigid for many purposes, but helpful nevertheless as an initial heuristic for representation of the dynamic conditioning fields of institutionalization processes [36] because it is a dynamic structure combining several sub-processes in which movement creates stability, thereby promoting some actors and expelling others as in musical chairs. In our view, this image of a rotating three-level structure provides intuitions for contextualizing the emergence of institutions as a dynamic multilevel process. It helps explain how a small collegial oligarchy of networked institutional entrepreneurs with multiple and inconsistent forms of status [10] uses, in its lobbying activity, multilevel position in these networks and their dynamics. Stability from movement in the multispin helps institutional entrepreneurs acquire the staying capacity and subsequent influence that is needed to frame, build, and entrench new institutions.

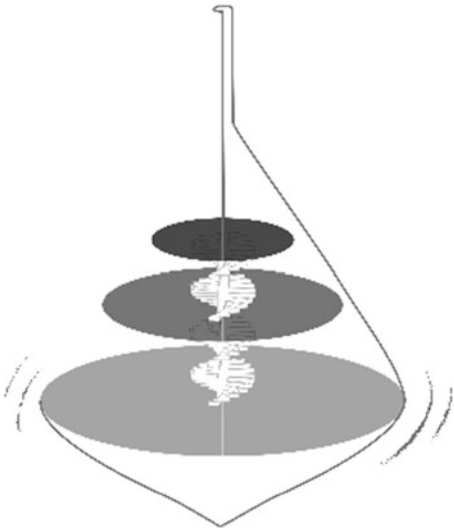

Fig. 2 Multilevel spinning-top with staircase in the shaft, or multispin, a metaphor for organized mobility and relational turnover. Design: Elie Partouche

In this metaphor, each level represents a network of collective action. In the emergence of institutions, the bottom level is composed of citizens, the second level of private organizations and public institutions, and the third level as governments, national and transnational. Affiliations as links between levels are not displayed in the picture for the sake of lisibility. Analytically speaking, agency starts at the level of individual networks. The evolution of these networks—each at its own level but influencing the evolution at the other levels through synchronization—is driven in part by controversies and mobility of actors moving into this system from the outside. The core set of individual institutional entrepreneurs with super-central status moves up the shaft and acquires a competitive advantage in the joint regulatory process of institutionalization. Transferring synchronization costs is rewarding for these actors when they have a strong multilevel position because these costs are either shared or dumped on others, who can end up in the periphery or in limbo. For example, revolving doors from public responsibilities to private jobs and back to public positions help create this informal pecking order and concentrate power with help of conflicts of interests. In this example, it is not enough for institutional entrepreneurs to have an official mandate to build an institution. Superposition of these dynamic relational systems of collective action and coordinated activities between them must provide these super-central entrepreneurs with sufficient resources, staying capacity, stability, and legitimacy to drive the institution-building process over time, long enough for the institution to emerge and/or change.

Multispin is a first metaphor meant to contextualize MLRIs and social processes that individual and collective actors navigate in Selznick's dynamic conditioning (mine) fields. More generally, this metaphor accounts for the systematic rotation—such as job rotation—from one place to another in a system of places, a movement

that creates relational turnover in members' personal networks. Over time, this relational turnover tends to slow down because members manage turnover by turning to a small and stable set of authoritative contacts, for example super-central advisors, who can then be compared to members who climbed the stationary shaft of the multispin, a metaphor for social status as MLRI represented as a staircase. Indeed members can gain or lose multilevel status and vertical linchpinship, i.e., capacity to act at different levels simultaneously, just like stairs can lead up or down. They can rise upwards, usually to dominate, or sink downwards, usually to be pushed out of the regulatory process. They then gain or lose influence as institutional entrepreneurs because the tendency to turn to a small and stable set of authoritative contacts creates a central core at the next level higher up, ultimately becoming ratchets of social stratification [37]. In short, this metaphor brings together individual and collective actors, trajectories, relational turnover in actors' networks, actors' multilevel status measured by centrality in superposed, overlapping networks, decisions, and normative choices. This structure however can also lose its balance and the process fail, unless all these ingredients [38] are kept together by the energy coming from socially organized mobility, for example resilience from MLRIs.

Multispin accounts for this institutionalization process in the empirical example presented above. Judges were brought to the Venice Forum on a top-down collegiality basis, then circulated across Europe to learn from each other and identify the ex ante leadership that was promoted to the collegial oligarchy with enough staying capacity, at least at two levels simultaneously, to become the permanent interlocutors of Brussels and EPO (the top level). Expert personnel was also circulated between corporate law firms, national ministries of justice, law schools in universities, courthouses, training facilities for future European judges, and industry associations, accounting for rotation at the medium inter-organizational level. Rotation at the level of governments was perhaps slower, less fluid than expected by the business communities bringing together large corporations, slowing down the process, and increasing synchronization costs for the levels below, to the point that the institutionalization process stalled, as if the multispin had stopped and fallen down.

7 Conclusion

This paper argues that the analysis of multilevel networks is useful to understand politics, institutional entrepreneurship, and social change. Investigating these fundamental realities and phenomena requires combining inter-individual networks and inter-organizational networks of institutional entrepreneurship over time. AMN helps identify multilevel relational infrastructures (in particular multilevel social status) on which institutional entrepreneurship depends, especially in collegial oligarchies as laboratories for social change. In heavily bureaucratized societies, these laboratories can take various forms such as bottom-up collegiality, top-down

collegiality, and inside-out collegiality. We argue that, in an era of vital transitions, one of the main challenges for social network analyses is to use AMN to observe these collegial oligarchies and to model and understand social (in)capacities to build alternative multilevel relational infrastructures promoting social change. This challenge leads to another: that of understanding the conditions under which a form of collegiality is selected by contextualizing institutional entrepreneurship and its multilevel relational infrastructures. The paper theorizes organized mobility and relational turnover as important dimensions of this contextualization of institutionalization processes.

These analyses have the potential to play an important role in society, when faced with transitions-related challenges. In contemporary organizational societies, giant private companies create collegial oligarchies by using their privatized multilevel network data and instruments of inside-out collegiality for private institution building with questionable legitimacy: for example by reshaping entire cities with apparent democratization of new technologies of decentralization of services (blockchains); by developing private community self-organization with parametrized digital platforms for management of local resources, often competing with the public political architecture of these communities; by creating private currencies; by monopolizing relational data and building low quality social sciences (undermining high quality open science) for brute force social engineering. Studying Selznick's "dynamic conditioning fields" as OMRT contextualizing forms of collegiality and institutional entrepreneurship might help understand these processes so as to keep multilevel political steering of future development accountable and democratic.

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