# Staying out while fitting in: the paradox of collectively quantifying alternative organizations

## 1. Introduction

There has been growing evidence of and attention to organizations engaged in economic activities in a way that is purposefully distinct from, and opposed to, the "capitalistic" investorowned, profit-driven business (Zanoni, Contu, Healy, & Mir, 2017). Such non-capitalistic organizations have been labeled as "alternative" organizational forms (Barin Cruz, Aquino Alves, & Delbridge, 2017; Parker, Cheney, Fournier, & Land, 2014). Although legal forms alone are not indicative of non-capitalistic dynamics, alternative forms are commonly observed among cooperatives (Birchall, 1997; Nelson et al., 2016), mutuals (Cornforth, 2004), worker-owned enterprises (Esper, Cabantous, Barin-Cruz, & Gond, 2017), or social enterprises (Battilana & Lee, 2014; Defourny & Nyssens, 2006). With varying success, these organizations seek to develop distinctive goals and practices such as absent or limited distribution of profits (Levi, 2005; Périlleux, Hudon, & Bloy, 2012), aim to serve a given community or society as a whole (Borzaga & Defourny, 2003; Defourny & Monzón Campos, 1992), and democratic and participatory governance (Cornforth, 2004; Dufays, 2019; Spear, 2004).

Beyond experimenting with distinctive goals and practices, alternative organizations seek to promote themselves and advocate for their alternative forms to the outer world (Mair & Rathert, 2019), often with the support of befriended social movements (Rao, Morrill, & Zald, 2000). When promoting and advocating for alternative organizations, due to the contrast between these organizations and their environment, an important paradox can be observed between "staying out" and "fitting in", i.e. between "opposition" and "conformity" (Mair & Rathert, 2019; Nelson et al., 2016). While all organizations seek some balance between distinctiveness and conformity, such balance is even more challenging for alternative organizations whose *raison d'être* is precisely to oppose the dominant norms and practices on which legitimating actors in society rely. On the one hand, alternative organizations are built in opposition to the dominant, capitalistic business, and seek to change society by diffusing norms that stand in contrast with those that are taken for granted by audiences (Barin Cruz et al., 2017; Zanoni et al., 2017). On the other hand, albeit to varying extents, alternative organizations and their supporters seek to gain a minimal level of legitimacy by convincing audiences (supporters, partners, governments, media,...) that they are worthy of support (Mair & Rathert, 2019). The tension between

"radicals" and "reformists", well documented within alternative organizations (Ashforth & Reingen, 2014; Barin Cruz et al., 2017), has thus implications in terms of building outwards visibility. According to a reformist stance, gaining visibility involves demonstrating minimal conformity with audiences' expectations and showing that these organizations are significant, not restricted to a specific niche, and that they participate in a broader, emerging change that audiences should take seriously. However, according to a more radical perspective, by doing so, the alternative, distinctive nature of these organizations may become diluted in the process of building evidence palatable to audiences' expectations. Such paradox between opposition and conformity is salient for single alternative organizations but even more for the collective population of organizations (Nelson et al., 2016), whether of a given type –e.g. cooperatives, social enterprises, worker-owned firms–, sector –e.g. finance, fair trade–, or a combination of both –ex. renewable energy cooperatives. These alternative organizational populations typically require coordination through meta-organizational structures such as federations and networks that represent their member organizations and advocate for their advancement (Audebrand & Barros, 2018; Davies, 2009; Huybrechts & Haugh, 2019).

One tool that has been increasingly used for advocacy, yet has received little attention so far in the context of alternative organizations, is quantification. Quantification consists of transforming information into numerical form (Fourcade, 2016), often with the aim of making a phenomenon more visible (Espeland & Stevens, 2008). While numerous studies have examined rankings (Espeland & Sauder, 2007), the expressions of quantification are broader (Espeland & Stevens, 1998; Espeland & Stevens, 2008). Of particular importance in the case of a distinctive organizational population is measuring the size of the population through counting the number of member organizations (Teasdale, Lyon, & Baldock, 2013). Metaorganizations commonly collect and share numbers regarding the number and size and outreach of their members to build visibility and recognition. In doing so, they engage in "selfquantification" since it is not a third-party organization that quantifies but a collective structure made of the quantified organizations themselves. For meta-organizations representing alternative organizations, we suggest that developing self-quantification is an advocacy tool that is likely to inform and shape the way in which the paradox between opposition and conformity is managed. Therefore, in this research, we explore the following question: "when collectively advocating for alternative organizational forms, (how) does self-quantification contribute to addressing the paradox between opposition and conformity?".

To respond to this question, we examine the work undertaken by the International Cooperative Alliance (ICA), the global meta-organization representing the organizational population of cooperatives. Since its creation, the ICA has been committed to collecting quantitative information on its members. We focus on how these efforts have been deployed since 2004, when the ICA established a ranking of the largest 300 cooperatives in the world. This ranking was developed in parallel to the broader effort to collect quantitative information on the global population of over 2.6 million cooperatives, which employ over 14.5 million people (Grace, 2014). We draw on the analysis of documents (annual reports, ICA quantification initiative reports, internal documents, etc.) and on interviews conducted between 2016 and 2020 with ICA leaders, statisticians, regional coordinators, academic researchers, and other cooperative advocacy network communities.

Through examining ICA's self-quantification work throughout three periods, we build a process model of how quantifying an alternative organizational population unfolds in relation to the paradox between opposition and conformity. We suggest that meta-organizational quantification is likely to start by addressing one side of the paradox, before being extended to address both sides. For the ICA, in the first period, the quest for conformity led them to focus on building visibility and aesthetically portray cooperatives as a powerful economic force. Hence, the aesthetic message to external audiences was favored over the validity of the quantification methods and the distinctive boundaries of cooperatives as an alternative organizational form. Internal critiques to this focus on conformity led the ICA, in the second phase, to increase the rigor of the methods, to involve member cooperatives more broadly, and to start emphasizing the alternative nature of cooperatives. Overall, the aesthetic message was made more credible thanks to improved validity, and there was increasing attention to the oppositional ambition of cooperatives. Such increased engagement with both sides of the paradox was pursued in the third period, with increased rigor, extension of data collection to non-economic as well as qualitative indicators, and involvement of an increasingly broad coalition of internal and external stakeholders. Our findings suggest that the combination of different quantification tools in the third period was relatively successful in reaching a balance between the expectations of internal (members) and external audiences. Thus, we propose that in the process of advocating for the advancement of an alternative organizational form, quantification can be collectively led through meta-organizations in a way that successfully addresses the paradox between opposition and conformity.

These findings contribute to at least two sets of literature. First, to the literature on alternative organizational forms (Barin Cruz et al., 2017; Parker et al., 2014), we document the challenges and opportunities of quantification to address the paradox between opposition and conformity. We add to the stream of research that documents the importance of meta-organizational structures to advocate for alternative organizations (Audebrand & Barros, 2018; Davies, 2009) by documenting the challenge of doing so while protecting the distinctiveness of the alternative organizational population (Mair & Rathert, 2019). Second, our findings also add to the literature on quantification, that has typically focused on how quantified organizations respond to quantification by a third-party (Elsbach & Kramer, 1996; Espeland & Sauder, 2007; Weber, 1978). By contrast, we show that, for an alternative organizational population, selfquantification is performed as a collective task through a meta-organization that acts as the quantifier. However, unlike a third-party whose stakes with regard to the quantified organizations are limited (Espeland & Sauder, 2007), collective self-quantification is a more complex task that needs to serve the claims of the organizational population while appearing sufficiently rigorous to be credible to audiences. This is even more important in the case of global meta-organizational quantification such as the one documented in this article.

The article is structured as follows. First, we review the literature on collective advocacy around alternative organizational forms and integrate insights from the literature on quantification. We then explain the methods used as well as the research context of quantification at the ICA. Our findings are then presented to highlight the evolution of quantification throughout the three identified periods. We then discuss our findings, expose their limitations and identify some avenues for future research.

## 2. Theory

## • Collective advocacy around alternative organizational forms

Alternative organizational forms are those that "exhibit values, modes of exchanges, work, ownership and practices that do not follow the logic of capitalist accumulation and profit maximization concentrated in private ends" (Zanoni, Contu, Healy, & Mir, 2015: 623). In other words, alternative organizations operate in ways that are distinct from and opposed to those of "capitalistic", investor-owned businesses (Barin Cruz et al., 2017; Parker et al., 2014). While much work has examined how to experiment with, and protect, alternative organizational forms

and practices (Esper et al., 2017), another stream of work has explored the ways through which these organizations seek to promote themselves and advocate for their alternative forms to the outer world (Rao et al., 2000). Such advocacy may target several audiences: entrepreneurs and communities to encourage the creation of other alternative organizations (Schneiberg, 2013); public authorities to obtain more favorable regulation (Huybrechts & Haugh, 2019); or industry associations to foster diversity of organizational forms within a given sector (Esparza, Walker, & Rossman, 2014). To engage in advocacy, alternative organizations tend to join together and involve a coalition of supporters, typically social movements that identify these organizations as embodying (and prefiguring) their vision of the world (Daskalaki, 2018; Reinecke, 2018). For example, Schneiberg and colleagues (Schneiberg, 2013; Schneiberg, King, & Smith, 2008) showed the role of an anti-corporate social movement in promoting the development of cooperatives as an alternative to capitalist corporations in the US in the early 20<sup>th</sup> century.

In their advocacy effort, alternative organizations face a paradox between, "staying out" and "fitting in". Indeed, their structural features and practices have been built in opposition to the predominant capitalist norms, which have gained prominence over the last thirty years (Zanoni et al., 2017). However, their diffusion requires aligning, at least partially, on audience expectations that are precisely embedded in these norms (Mair & Rathert, 2019; Nelson et al., 2016). Managing this paradox requires a subtle balance between the distinctiveness inherent in the alternative ambition of these organizations and the need to reach minimal alignment on audience expectations in order not to appear as illegitimate. Such paradox is likely to apply differently to the members of the organizational population depending for example on their size, financial structure and market competitiveness (Barin Cruz et al., 2017). While this paradox may seem to resonate with the notion of "legitimate distinctiveness" (Navis & Glynn, 2011), in the case of alternative organizations we suggest that the well-documented tension of "novelty versus conformity" is replaced with a more fundamental paradox of "opposition versus conformity" that is particularly salient when advocating for their distinctive form. In other words, alternative organizations need to engage with audiences that rely on norms that these alternative organizations precisely seek to contest. For example, research on alternative "fair trade" organizations that challenge mainstream commercial actors while at the same time collaborating with them has documented the challenge of being both "in and against the market" (Fridell, 2003). Such paradox can be partly addressed when dominant norms are used to "provide a foundation for action that supports the arguments and interests of those who stand opposed on principle" to these norms (Mars & Lounsbury, 2009). For example, the promotion

of student eco-entrepreneurship by environmental activists contested the dominant market logic while at the same time using it to advance its cause (Mars & Lounsbury, 2009).

Nevertheless, alternative organizations taken in isolation often lack the resources and reflexivity to address this paradox and engage in advocacy on their own. For example, the pioneering British social enterprise Aspire devoted resources and efforts to advocate for their new distinctive organizational form to such an extent that they fatally lost sight of their own organizational development (Tracey, Phillips, & Jarvis, 2011). Conversely, several studies on commercially successful cooperatives such as Mondragon (Bretos & Errasti, 2017; Errasti, Bretos, & Nunez, 2017) demonstrate the challenge of maintaining and advocating for cooperative distinctiveness when alternative organizations have to conform with external pressures, typically competitive pressures.

Therefore, advocacy of alternative organizations is more easily managed collectively through federations and networks, also referred to as "meta-organizations". The term meta-organization was put forward by Ahrne and Brunsson (2008) and designates an organization of organizations. Meta-organizations are well equipped to engage in collective advocacy work on behalf of their members (Spillman, 2018). This is especially the case for alternative organizations who may find an opportunity to collectively address the paradox between opposition and conformity (Michel, forthcoming). For example, Huybrechts and Haugh (2018) documented how the creation of a meta-organizational structure enabled European renewable energy cooperatives to develop advocacy narratives to convince dominant field actors to legitimize and accommodate this alternative form of organizing in the energy sector. In particular, meta-organizations may enable to find middle ground between alternative organizations with different views on how to rather "stay out", "fit in", or both - typically, "reformists" leaning towards conformity and "revolutionaries" leaning towards opposition and distinctiveness (Ashforth & Reingen, 2014). While the former seek to influence mainstream actors to adopt part of their alternative practices, the latter seek to create "alternative economies" (Zanoni et al., 2017) in which their distinctive practices would not only operate within, but also among the organizations, to form new alternative ecosystems (Michel, forthcoming). Much work has examined the differences between and relationships among proponents of either approaches within organizations (Ashforth & Reingen, 2014) or fields (Child, 2015). Nevertheless, how meta-organizations manage diversity to address the paradox

between opposition and conformity when collectively advocating for alternative organizational forms has not been examined so far.

Meta-organizations representing alternative organizational forms are likely to be more outward facing, advocacy oriented than meta-organizations that band together for mutual, exclusive member benefit. Advocacy outcomes may enable for example to build market positioning against capitalist competitors (Audebrand & Barros, 2018; Davies, 2009), connect with field-level actors to build legitimacy (Huybrechts & Haugh, 2019) and achieve institutional change (York, Hargrave, & Pacheco, 2016). One avenue for advocacy that is increasingly used by meta-organizations yet has received little attention so far is quantification. Collecting and sharing numbers regarding the size and outreach of their members is a way through which meta-organizations may advocate for the alternative organizational form while addressing the paradox between opposition and conformity.

## • Quantifying alternative organizations

Quantification is the process of transforming qualitative information into numerical form. Numbers are rhetorically useful, among other reasons, because they draw on the legitimacy of science, transcend linguistic differences, and facilitate comparison (Fourcade, 2016). Quantifiers gather, process, and communicate information about a phenomenon, often with the aim of making that phenomenon or its characteristics more visible. Espeland and Stevens (Espeland & Stevens, 2008) argue that quantification may be viewed through five broad theoretical constructs: *authority*, the broad and general confidence and trust in numbers held by quantification audiences. Authority is reflected, for example, in the growing demand for quantitative evidence by governments; work, the practices and labor involved in quantification, for example, as government agencies develop and incorporate new tools for mapping urban communities in response to demographic change (Desrosières, 2002); reactivity, or the broad effects of the quantification initiative on external audiences as represented, for example, new forms of self-examination or comparison among the quantified; aesthetics, not only visual representations but also the power of numbers to represent a broader idea, for example, when a number represents a basketball player or GDP represents the 'size' of the economy; and, finally, discipline, or the quantifier's active shaping of the quantified entities' behavior (Espeland & Sauder, 2007), which may be observed, for example, when advocacy organizations rank nations

on their human rights practices to induce changes in law enactment and enforcement (Merry, 2016).

Quantification research in organizational theory has mostly focused on the theoretical construct of *reactivity*, i.e. on how organizations react to being quantified. This work asks, for example, how organizations respond to new ranking systems (Elsbach & Kramer, 1996) or new quantitative tools (Orlikowski & Scott, 2014). The broad finding is that whether and how the quantified respond depends on the perceived level of threat to resources or status (Elsbach & Kramer, 1996; Espeland & Sauder, 2007). The main mechanism occurs when members of the quantified organization call previously highly valued aspects of their organization into question (Elsbach & Kramer, 1996). They may also implement new comparison categories to highlight organizational strengths that were not central to the ranking methodology (Espeland & Sauder, 2007). Quantification and its reaction may, through this process, lead to feedback loops that magnify or minimize the rewards associated with certain behaviors, i.e. that may change how organizations behave. A handful of works, however, demonstrate that quantified organizations aren't purely at the mercy of their quantifiers. Desrosières (2015) proposes the concept of retroaction - the ways that quantification initiatives shape the quantifying organization over time - to supplement Espeland and Stevens' (2008) construct list. Retroaction may occur, for example, when quantified shape the tools used for quantification, as in the case of activism against discrimination in credit pricing (Krippner, 2017). Retroaction is interesting when considering the implications of quantification on the functions of meta-organizations, typically their relationships with their members.

Although organizational theory rarely explains how organizations use quantification as a tool (but see Doshi, Kelley, & Simmons, 2019), an earlier wave of quantification research focused on how scientists and nations quantify their subjects, and the resulting reactivity-retroaction feedback cycles. Porter (1996) claims that reliance on supposedly objective figures led to the rising authority of numbers in governmental administration. At the root of quantification was an act of control, and the result was a filtering out of elements and characteristics that resisted quantification. This idea also appeared in research comparing the development of statistical agencies across France, Germany and Britain (Desrosières, 2002) – in both cases, it was argued, the way that statistical agencies quantified their population mirrored governments' own perceptions of the problems it was concurrently facing. Public policies supporting alternative organizations are no exceptions to the rule. For example, when examining the way in which the

UK government has built statistics on social enterprises in recent years, Teasdale and colleagues (Teasdale et al., 2013) report that a narrative of growth was purposefully constructed by manipulating the definition of social enterprise and including a growing diversity of organizations. In brief, in many cases quantification is not a unilateral movement but rather a multi-actor, coalitional process that affects both the quantifying organization and members of the quantified population over time (Berman & Hirschman, 2018). Merry (2016) describes the coordinated process between law firms, non-profits, and governments to describe human rights abuses around the world. In her study of the recent rise in ways to pressure firms toward increasing their pro-social activity, Barman (2016) focuses on how quantifiers seek to create new conceptions of social value that directly compete with purely economic indicators, thereby drawing on the legitimacy of other quantification initiatives.

In this coalitional work, organizations may quantify themselves. While such "selfquantification" has little sense for single organizations, it is particularly relevant as a collective, coalitional effort through with members of an organizational population use quantification to achieve their goals. The possibility of self-quantification has received little attention in the literature, where quantifiers are often third-party actors such as the state (Desrosières, 2002), the media (Espeland & Sauder, 2007), and specialized ranking agencies (Pollock, D'Adderio, Williams, & Leforestier, 2018). Self-quantification raises interesting questions on the relationships between the quantifier and the quantified, which are no longer distinct subjects but which rather appear as roles that may be mediated through a meta-organizational structure. The role of the meta-organization as quantifier thus emerges out of a collective effort from the members, i.e. the quantified organizations. This has important implications for the quantification work: for example, the position of member organizations may influence how they are involved and depicted in this work. It also has implications regarding how retroaction and reactivity effects are connected to each other. For example, how the organizational form comes to be defined influences both the membership and the mandate of the meta-organization.

Developing "self-quantification" through meta-organizations is particularly challenging for alternative organizations because of the paradox between opposition and conformity. Indeed, quantification to advocate for alternative forms may both feed (reactivity) and be fed (retroaction) by the way in which this paradox is managed. We suggest that the different dimensions of quantification may inform this relationship, for example the way in which the authority of numbers is pursued, or the use of aesthetics or validity claims. Our research question is thus the following: "how does collective quantification through a meta-organization shape, and reflect, the way in which the paradox between opposition and conformity is managed when advocating for alternative organizational forms?"

## 3. Research context and methods

We used a longitudinal single-case research design (Yin, 2009) focused on the International Cooperative Alliance (ICA) – the meta-organization representing and promoting cooperatives internationally since 1895. Citing increased demands for numerical evidence about the scope, viability, and variety of cooperatives worldwide, the ICA communications director initialized a signature quantification initiative in 2004 with the goal of annually identify the largest 300 cooperatives by turnover. The ICA's quantification efforts since 2004 appeared as an "unusually revelatory" context (Eisenhardt, Graebner, & Sonenshein, 2016) offering a window to understand how quantification of alternative organizations unfolds and informs the paradox of advocating for these peculiar organizations.

A cooperative is "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise" (https://www.ica.coop/en/cooperatives/cooperative-identity, viewed 16<sup>th</sup> April 2020). Cooperatives are often presented as emblematic examples of alternative organizational forms that are distinct from both shareholder-based for-profit corporations and non-profit organizations (Nelson et al., 2016). Inscribed at the advent of the modern cooperative in 1844, the cooperative principles highlight the importance of these governance criteria: cooperatives are intended to generate social and economic value, profits are reinvested or distributed to members, and a commitment to co-operation, rather than competition, is encouraged among co-operatives (Birchall, 1997). An additional cooperative principle focusing on "concern for the broader community" was added by the ICA general assembly in 1995 during the ICA's centennial year.

The ICA categorizes cooperative businesses into seven sectors – agriculture and food; industry and utilities; wholesale and retail trade; insurance and mutuals; banking and financial services; health, education, and social care; other services – each of which has representatives to the ICA board to reflect their unique position in the advocacy network. The prominence and distribution of cooperative businesses varies across nations, as does whether there are general, sector-

specific, or no laws institutionalizing the cooperative business form. Moreover, the degree of adherence to cooperative principles seems to also vary across region, sector, and local and organizational cooperative cultures (Birchall, 1997; Nelson et al., 2016).

The International Cooperative Alliance was founded in 1895 for "a widening of knowledge and of mutual support and encouragement" (ICA, 1895, 1). The ICA has, since then, sought to be the apex of cooperatives worldwide. Collecting statistics on cooperatives has always been part of the "knowledge-building" mission of the ICA. However, until the late 1990s, statistics were only collected among the members of the regional and sectoral federations, thus not with the aim of covering the whole population of cooperatives. As a result of the worldwide diversity of cooperatives, cooperative advocates face substantial challenges in describing the extent of the global cooperative population. Most countries do not systematically track cooperatives and until recently cooperatives were absent from international statistical efforts.

Despite these difficulties, in order to provide emblematic quantitative evidence, the ICA decided in 2005 to collect information on the largest 300 cooperatives. The goal was to provide visibility to the movement by highlighting the "tip of the iceberg", as stated in the introduction of the first "ICA Global 300" published in 2006. The Global 300 was published yearly until 2011. However, it was managed by ICA employees and received critique due to methodological challenges and the ever-lasting question of how to define a cooperative. For example, cooperatives were identified through their legal form regardless of whether they genuinely complied with the cooperative principles and were members of any cooperative federation.

In the late 2000s, the ICA began to enrich its ties to the United Nations agencies, including the Food and Agriculture Organization and the International Labor Organization. The United Nation's declaration of 2012 as the "International Year of the Co-operative" brought the spotlight on cooperatives at the international level, which spurred and accelerated several projects. To improve the rigor of quantification, in the preparation of the 2012 UN Year of Cooperatives, the decision was taken to outsource the data collection and publication to Euricse, a European research centre based at an Italian university. Starting in 2012, the yearly report was called "World Co-operative Monitor" (hereafter WCM) and aimed to improve the data on the top 300 and add data on other co-operatives as well.

In parallel, efforts were undertaken by a coalition of actors to develop a methodology in view of collecting statistics on co-operatives worldwide. Such coalition included the ICA, the ILO and the COPAC ("Committee for the Promotion and Advancement of Cooperatives"), a "multistakeholder partnership of global public and private institutions that champions and supports people-centred and self-sustaining cooperative enterprises as leaders in sustainable development" (copac.coop). As soon as 2002, under the impulse of the ICA, the ILO had adopted a recommendation (n. 193) to promote co-operatives, including a point concerning the development of statistics on co-operatives. This point was, however, only really implemented 10 years later. In responding to the resolution concerning further work on statistics of cooperatives adopted by the 19th International Conference of Labour Statisticians (ICLS) in 2013, a "technical working group" (TWG) on cooperative statistics was set up under the umbrella of COPAC and including experts from the ILO (Coop Unit and Department of Statistics), the international and national cooperative movements, the research community as well as national public authorities such as national statistics offices and those in charge of cooperative development. The TWG held meetings, organized open workshops in the context of events such as the "International Conferences of Labour Statisticians" (ICLS) in 2013 and 2018. It produced several documents analyzing methodologies, comparing country case studies and formulating guidelines for policy-makers and co-operative supporters.

In 2017, under the impulse of the new director-general Bruno Roelants, former Secretary General of CICOPA, the WCM was continued yet with a stronger ambition of rigor (following the statistical guidelines as defined at the 20<sup>th</sup> ICLS conference) and more diverse indicators related to the distinctive impact on cooperatives. Moreover, under the supervision of a single statistics coordinator, the ICA decided to position the WCM as one of the tools to emphasize the scale of cooperatives besides the other quantification projects led together with external partners such as the ILO. Rather than investing in the sole WCM as its flagship output, the ICA developed a portfolio of projects to document and share the scale of the cooperative movement. While this might have resulted in a more scattered and diluted message, we suggest that such portfolio led the messages regarding the quantification of cooperatives to be conveyed and relayed in a way that enabled both opposition and conformity. For example, in 2019, the General Assembly of the United Nations commissioned a report on the role of cooperatives in social development, which articulated different approaches to cooperative quantification (WCM, global statistics, impact indicators,...) to acknowledge their distinctive role in advancing social development.

## Data collection

To triangulate the data (Ragin, 1994), we collected three types of data on the process and the outputs of quantification by the ICA since 2004 (see Table x). First, we gathered a large amount of documents (70) totaling nearly 1000 pages and including the main official documents published over the last 20 years and having a direct link with cooperative statistics. These documents include: 16 ICA annual reports (from 2000 to 2019), 5 other ICA reports, 12 editions of the "Global 300" and then "World Cooperative Monitor" (2006-2019), 6 ILO publications on cooperative statistics, 2 COPAC reports, 3 COPAC meeting minutes, 2 CICOPA reports and 5 researcher reports. We also collected relevant data from the websites of the ICA, sectoral federations (CICOPA,...) and initiatives related to cooperative statistics (ICLS, COPAC and ILO).

Second, between 2016 and 2020, we conducted interviews with the main informants involved in the quantification of cooperatives. We started with the ICA staff members active in quantification throughout the different periods, among which the instigator of the Global 300 and the former and the current directors and chairs. We then extended the interviews to other organizations working with the ICA on quantification, including Euricse, regional and sectorbased federations, members of the WCM scientific committee, COPAC, and ILO. We interviewed six of these informants twice, which combined with the document analysis allowed us to track the development of quantification over time. Tables 1 and 2 list the documents and interviews that the organizational affiliation of our informants. Interviews were approximately 60-90 minutes each and were conducted in a semi-structured way in person, via videoconferencing, or by telephone. All the interviews were recorded and transcribed in full.

## Data analysis

As a first exploratory step, an extensive narrative of the development of the ICA was written with a timeline of events regarding the evolution of both the ICA itself and its quantification efforts. Three main periods were delineated thanks to key evolutions in both the quantification approach and the leadership and governance structure of the ICA. A first period, from 2004 to 2009, corresponded to the experimental "Global 300 project", led by a small staff operating within the ICA. A second period, from 2010 to 2016, embodied the development of the "World

Cooperative Monitor" by the ICA and Euricse, under the impulse of the director-general. The third period, from 2017 to 2020, witnessed an extension of quantification through connecting with other initiatives on cooperative statistics together with the ILO and the UN and increasingly involving the different parts of the cooperative movement. Such development was enabled by a new team at the ICA led by a new director-general. The period delineation was presented to the ICA statistics coordinator and one expert researcher to validate and fine-grain our understanding of the case.

Second, the documents, interview transcripts and event minutes were read by all authors to gain deep understanding of the dataset. A first open coding structure was developed jointly by the co-authors to identify the main dimensions of quantification at the ICA and their evolution over time. The coding was then systematically applied to all the empirical material by one of the authors with the help of Nvivo. Such coding was regularly discussed and improved during monthly author meetings. In parallel, the codes were refined thanks to the theoretical work, in particular the different dimensions of quantification. First, the authority of numbers refers to what are the key motivations behind quantification. Then, the quantification discourse describes how quantification is framed and communicated. Third, the quantified object refers to who is eligible to being quantified (and who is not). Fourth, the quantification work refers to what is being done concretely in terms of methods and process. Reactivity covers the impact of quantification on internal and external audiences. Finally, retroaction is concerned with the impact that quantification has on the quantifier itself. The shifts in the different dimensions throughout the three periods were carefully described and connected with the broader question of how the paradox between opposition and conformity is managed. The general evolution was depicted graphically and illustrative quotes were selected for each quantification dimension at each of the three periods.

#### 4. Findings

The findings are structured around the three phases of quantification development at the ICA. For each phase, we show the consistent articulation of the different dimensions of quantification, including: the authority of numbers, the quantification discourse, the quantified object, the quantification work, and the reactivity and retroaction effects.

## Phase I: Market conformity

In the first period, with the Global 300, the primary motivation for quantification was to appear as visible to market audiences. Making cooperatives more visible as genuine economic players was expected to provide advantages over time, following a conformity strategy:

The Global 300 project aims to make visible what is often invisible. [...] Although cooperatives are often market leaders with well-established brands, nationally or regionally, ordinary people are often unaware that these companies are co-operatives. [...] This will allow cooperatives to be integrated into governmental economic models, and thus be taken more seriously. (RES1)

In terms of quantification discourse, the willingness to become visible to market audiences led the ICA to present cooperatives as a large and successful economic player. To do so, it emphasized conformity over opposition, and visibility over credibility. Two choices are emblematic of this positioning. First, the focus on market conformity was evident in the choice of a "Top x" ranking similar to "Fortune 500" and other business rankings. Second, the choice to compare the weight of the 300 largest cooperatives with country GDPs and expressing it as such, despite the fact that these two indicators measure very different things (accumulated turnover versus accumulated value-added), was indicative of a strategy favoring visibility over credibility. Taking the accumulated turnover of the largest 300 as a proxy for the weight of the whole cooperative sector was also a deliberate choice in that period, which was relayed in the ICA documents emphasizing the weight of cooperatives.

Together these 300 co-operatives are worth 1.6 trillion US dollars, equivalent to the 9th largest economy in the world (ICA-AR09)

[As] a serious economic player on the world stage, [...] just do not let anyone tell you anymore that our movement is anything but hugely successful! (GLOB06)

Largest cooperatives were seen as the most emblematic of the cooperative population and the easiest to access. Because of the size and age of these largest cooperatives, this sample served as a proxy to quantitatively assess the size and the growth of cooperatives globally.

These large co-operatives are from my viewpoint, the living history of the co-operative movement. Most of the top 300 co-operative and mutual businesses are between 50 and 100 years old. They are the result of many generations of adaption and innovation. (interview 4, ICA)

It's more useful for us frankly, it's easier to get the data from the larger co-operatives. A lot of them have reporting requirements already, and it's easier to get. (interviewee 1, ICA)

Regarding the boundaries of the cooperative form, up to the 1990s, the ICA followed a membership logic where compliance with the cooperative principles was assessed locally by regional or national federations. With the drive towards quantification, the ICA had to move in the first period from heralding general principles towards providing a consistent definition that could be operationalized to identify and rank the largest cooperatives. The willingness to display large cooperatives as success stories that could build the legitimacy of cooperatives in the eyes of external stakeholders led to including organizations located far away from the "cooperative ideal-type" and whose identification as cooperatives could clearly be contested, including by themselves. The ICA decided to include groups or networks that "mainly" (but not exclusively) comprise cooperatives, or companies of which a cooperative is one of the shareholders.

In developing statistics on cooperatives, the data provider could also consider extending the boundary of the population under study. Cooperative enterprises might not be the only type of organisation carrying out their activity in a cooperative way. (ILO2)

The interviewees at the ICA present at that time explain how definitional issues that were longstanding in the cooperative movement were reignited through the quantification project. In particular, the willingness to stretch cooperative boundaries in order to appear more successful and worthy of attention led to arguments and negotiations with member federations and stakeholders. These arguments were handled internally by a small number of staff managing the Global 300 project and taking the main decisions.

There were arguments [...], there were discussions about which ones were in and which ones were out. (interview 15, ICA)

Internally there was a bit of a pushback because a lot of our members are sensitive to the community-based ethic of the movement, and don't like the idea that somebody might misunderstand that we're all about "big" and "the largest" in terms of revenue. (interview 1, ICA)

The definition of the quantified object went hand in hand with the quantification work itself. We identify three key elements as part of this process: developing quantitative and qualitative indicators, designing quantification methods, and standardizing the process internationally. During the first period, the focus was laid on collecting the most easily accessible quantitative indicators to measure the size and performance of cooperatives, i.e. the turnover. The methods were rather experimental and consisted of estimations in the absence of clearly reliable data. There was no systematic effort from the ICA or from other institutions to standardize the figures on cooperatives coming from different countries. Overall, consistent with the discourse of success and visibility, and considering the small amount of resources devoted to this project, this was a straightforward way to achieve the goal of providing figures that could aesthetically demonstrate the size and performance of cooperatives.

The reality is that there aren't many other ways of measuring coops that most coops embrace in terms of reporting. So in the absence of anything else, we went back to ordered accounts, and the financial performance. (RES2)

In the early years, we saw many publications with statistics relying a lot on estimations. Although sometimes I would say even also a bit courageous estimations. (interview 14, ICA)

Reactivity concerns the effects of quantification on quantified organizations and on audiences. Quantification has consequences on the target organizations, in this case cooperatives, which may adapt to the act of being quantified. It also has consequences on stakeholders concerned with quantification. In the first period, quantification had little impact on either cooperatives themselves or on external partners. The "Global 300" project had limited internal visibility, cooperatives included on the list were not necessarily aware of it, and despite the willingness to involve them in the cooperative movement, such involvement was limited or inexistent for most of them. The project was also developed independently from international institutions interested in cooperatives.

It was often seen by senior management or the chair or whatever the board as a bit of a distraction to be involved with the movement, because the movement talked about all these unrealistic, idealistic objectives and yet they had to make this bloody organization work in the real world, in the business world, right? You needed something to bring those people closer to the movement and show that the movement understood them better and was a vehicle for promoting a wider movement which promoted their interests and their member interests as well. (interview 4, ICA)

A final dimension concerns the way in which quantification affects the quantifier itself. Retroaction evolved along with the deployment of the project. In the first period, the ICA sought to use the quantification project to reaffirm its leadership in the cooperative movement. The search for visibility, as documented in the project's motivations, was also meant to benefit the position of the ICA as the apex of cooperatives globally. In the first period this remained at the stage of an objective, which would only be fulfilled during the second period and particularly in the wake of the UN International Year of Co-operatives in 2012.

*ICA is developing what will become recognized as the leading authority and reference on the true scale of the co-operative sector around the world (ICA-AR06)* 

The project shows a new direction and repositioning whereby the ICA becomes the world champion and the main source of information on the activity of cooperatives. (RES2)

#### Phase II: Institutional conformity

In the second period, with the transformation from Global 300 to WCM, the motivations remained mainly external, however there was increasing attention to the relationships with international institutions as a key audience of quantification. One major reason for such increasing attention was the preparation of the 2012 UN Year of Co-operatives, which accelerated the collaboration between the ICA and different UN-related institutions (ILO, FAO,

etc.). As rigor and validity were important notions for these institutions, they became increasingly important in the ICA's quantification efforts, leading to the involvement of Euricse to run the WCM. Overall, the visibility build in the first period was balanced with validity concerns, and conformity was increasingly directed towards international institutions, emphasizing impact and reliability besides economic performance.

The impetus for it initially [...] is to show the impact that the co-operative model can have in order to get the attention of policymakers. As long as they think that you are only community based and that this is a cute and quaint model, but it can't really solve major problems, it is very hard to get them to put a lot of energy into making sure you have the right legal environment and policy environment. (interview 2, ICA)

I was in a meeting where the [...] the Director General of the ILO [...] said, "What you're doing with this 300 exercise is really important because, from the ILO's point of view, we want to be able to prove that these business organizations are able to operate commercially and competitively with a slightly higher unit labor cost and still survive." [...] He was really interested in having some reliable stats and data that would support the ILO's long-standing support of the coop model, not just as a development model, but as a model that more fairly looked after employees. (interviewee 3, ICA)

In terms of quantification discourse, the longitudinal data on accumulated turnover was used to fuel the growth and success narrative. The revenues evolved from 1.2 trillion US dollars in 2009 to 1.6 trillion in 2011, 2 trillion in 2013 and 2.2 in 2014. This was then expressed in terms of country GDP positioning, enabling the ICA to visualize the evolution from equivalent to the 10<sup>th</sup> largest economy in the world in 2009 to the 9<sup>th</sup> in 2011 and the 7<sup>th</sup> in 2014. Moreover, in the post-2008 crisis context, the ICA put the emphasis on presenting cooperatives not only as a successful but also as a reliable, resilient economic force. The questioning of the traditional for-profit model after the financial crisis brought an opportunity to bring to the forefront the distinctive benefits that cooperatives could represent for the economy. Typically, the WCM and other ICA reports emphasized how cooperatives represent a more reasonable, sustainable business approach that could contribute to stabilizing the economy, as opposed to the for-profit business model depicted as more risk-oriented and less sustainable.

Through the World Co-operative Monitor, the Alliance delivers again this year the empirical evidence that co-operative enterprise is an important, global economic force. [which] is beneficial to a country's economy. Co-operatives stabilize and strengthen the economic fabric, because they are more risk-averse and less driven by the need to make profits than are investor enterprises (WCM14)

In terms of the quantified object, as a reaction to the internal and external critiques on the lack of validity of the statistics, in 2010, the ICA decided to outsource the production of statistics to a research centre. Although the centre was funded by the ICA, it would appear as more neutral and better equipped to assess the boundaries of the cooperative form. Quantification remained focused on the largest cooperatives, nevertheless in the process of transitioning from the Global 300 to the WCM there was increased willingness of the ICA staff to develop a broader quantification project. For example, other lists than the largest 300 were developed such as a list specific for developing countries. Data also started to be compiled for smaller cooperatives and contacts intensified with the ILO and its statistics office.

An ongoing goal of the project is to continuously expand and enrich the database, with the aim of increasing the number of businesses being monitored and their geographic and sectorial distribution (ICAWEB, 2016)

In terms of cooperative boundaries, in the second phase, the delegation of the report to the research centre reflected the willingness to transform the initially political issue of the cooperative definition into a technical one and to communicate about the increased rigor of the project.

So, we said, if this is going to work, we really need to have more discipline around this. And that's when we went to [research centre] and said "we're looking for a scientific research partner who will look at the data, gather the data, come up with some clear criteria, just apply the criteria. [...] We said "we want all of that outside of the alliance. Put it in the scientific committee and you all decide." And once we did that all these issues just kind of disappeared. We were able to tell people, "there's a process, there's definitions, we footnote all this." (interviewee 2, ICA) Such rigor did not prevent the continued "stretching" of cooperative boundaries through including different types of cooperative-like organizations, which was conducted "*in order not to underestimate the overall impact of co-operative organizations*" (WCM13). There was still widespread belief that examining the characteristics and the evolution of the largest cooperatives was a good proxy for estimating the size and evolution the whole cooperative movement. In several ICA publications, the size of the top 300 and the size of the movement were used interchangeably.

With USD 2 trillion in annual revenue among the 300 largest co-operatives alone, this is a **sector** that is no side-player, but a major, global, economic force. (ICAWEB2016; bold added)

Despite the willingness to appear more rigorous, the persistent emphasis on larger cooperatives caused frustration in the cooperative movement. It was perceived by certain national and sector-based federations as embodying a particular, market-oriented approach to co-operatives, at the expense of a more qualitative approach based on cooperative values as alternatives to the dominant mainstream market model embodied through the for-profit corporate form.

In the cooperative movement, there are several tendencies. One tendency is more aligned on the market and really aims to demonstrate how big cooperatives are. Statistics such as the WCM [reflect] a more Anglo-Saxon approach that is "promotional", that emphasizes the impact, the emotions, and doesn't really care about the methods. [...] And so we try to defend a more critical approach through building solid statistics away from any "promotional" intent. (interview 5, Cicopa)

Several voices, including WCM researchers themselves, suggested that it was important to improve not only the rigor but also the distinctive nature of cooperatives and exclude "false" ones not acting as cooperatives. However, it appeared that excluding all the organizations not totally complying with the cooperative principles was difficult to combine with the goal of emphasizing the largest possible cooperatives, as embodied by the WCM.

It's definitely frustrating for us as well, we do what we can with the data but sometimes we look at the top 300 and say " but is it really a cooperative, are they really operating,

is it democratic governance?", but we can only get to a certain point with what we have but it leaves us questioning the data a lot. (interview 9, Euricse)

The conclusion about false coops is that it's not a statistical problem, [...] we have to exclude false cooperatives from the movement but this is a political problem. (interview 11, researcher)

Regarding the quantification work itself, consistent with the discourse of demonstrating validity and economic reliability, there was increased attention to the international standardization of the indicators, which was enabled through closer collaboration with the statistical teams of international institutions such as the ILO. Moreover, the focus evolved towards examining not only the turnover but also other indicators such as the capital structure. The composition of the cooperatives' capital is an interesting indicator that simultaneously informs the financial robustness of the organization and thus its economic reliability, and the compliance with cooperative principles that emphasize the importance of members' ownership. Compliance with cooperative principles was further investigated in the WCM through qualitative indicators such as participation in governance. Qualitative work was also expressed through the Dot.coop project making it possible for cooperatives to create a ".coop" website from 2001 on, and through "cooperative stories" meant to provide a more diversified and in-depth picture of cooperatives than what could be achieved quantitatively.

These [qualitative] initiatives help soften the message that it's just about the largest [cooperatives], which was never the intent. (interview 1, ICA)

You can see who is using a Dotcoop and there's a mark they're trying to promote. It's kind of the other side of our work right, I mean we have the economic side and recently they're pushing a little bit more the concept of identity and sticking to the cooperative principles [...] ours is much more economic, theirs is a little bit more the emotional side, let's say, you know, being part of the movement, they're trying to push that messaging. [...] You know, we try to work together. (interview 9, Euricse)

We partnered with [research centre] to collect stories of co-operatives on the new www.stories.coop website. These stories depict the breadth and depth of all sizes of co-operatives across all sectors and regions. They substantiate the authenticity of our

claims, relating the rich narrative of co-operative impact in a way that the numbers in the Monitor can only quantify (ICA AR, 2011)

Regarding reactivity, in the second period, more efforts were devoted to involve large cooperatives, and the list was seen as a tool to increase their engagement and sense of identification as cooperatives. While the Global 300 was an exclusively ICA-piloted project, the WCM was conceived in a more collaborative way, working together with regional and sectoral federations, and asking individual cooperatives to contribute. Specific webpages and documents were created to sensitize cooperatives regarding how quantification could support them in become more visible and gain support.

Co-operatives have been given a precious tool which I strongly encourage them to use to demonstrate how important our enterprise model is. (ICAWEB)

It is an ambitious project that ICA and Euricse will bring forward together, trying to involve more and more federations and local representatives, [...]. Achieving this goal will depend mainly on the active participation of co-operatives in the project and their availability, understanding the importance of the project, to share their economic and social data with the World co-operative Monitor research team. (WCM12)

Involving cooperatives in the quantification process was also a way to fight against the inclusion of "false cooperatives" in the WCM – inclusion that had attracted criticism. The ICA staff responded that organizations displaying less compliance with the cooperative principles despite being legally cooperatives, could be embarked on a journey to bring them closer to the cooperative principles.

We called [some cooperatives on the list] but we don't know who to talk to, it's not clear on their website, they don't even know they are coops, they don't care about this top 300 list, it's been a real struggle. We'd like to have them in the movement and get them to realize the principles and that they're cooperators. Because we don't want them to go too far away from the principles we want them to realize they're coops, to stay coops, you know and so we do try to engage them (interview 3, ICA) Collaborative efforts were also deployed to convince governments to develop statistics on cooperatives under the impulse of international institutions such as the UN and the ILO.

What we are trying to do is to get the national databases, that national governments provide statistics to the UN agencies every year. [...] It's a great opportunity for us to really get into those organizations in ways that would be difficult to do just on our own. It gives us a department inside the UN who are friends with us, who really get the co-operative agenda, who are able to help maneuver what is otherwise a very impermeable organization like the UN. We think that's going to be very powerful. (interview 2, ICA)

Finally, in terms of retroaction, the ICA sought not only to appear as the leader of the cooperative movement in the eyes of audiences, but also to reinforce its internal role of coordinating and uniting the different strands of the movement. Such role had been challenged by certain actors within the movement who felt that collaboration was lacking and the ICA did not manage to build such collective voice:

We don't work together much [...] Within the cooperative movement there's a culture of silos more than a culture of collaboration [...]. So this is a big challenge that prevents us from being, let's say, for taking advantage of our very diverse networks. [...] But it should be indeed the first priority for the ICA because it's the one representing all of us, you know? (interview 5, Cicopa)

The increased mobilization of the different national and sector-based federations in the quantification efforts was a way to affirm this coordination role as global apex and to neutralize the criticism regarding the focus on quantifying large cooperatives only.

We are a huge movement and all our voices are needed in this movement, but I believe that the ICA as the apex movement, a rich one, a very rich one, should, you know, should put all the different views together and find a way to coordinate all this richness. (interview 1, ICA)

Since the United Nations granted us the wonderful gift of the International Year of Cooperatives in 2012, there is a much greater sense of cohesion and unity of purpose amongst co-operative enterprises. With the support of our growing membership, and using the unique voices of our members themselves, we have begun the process of building influence and having impact on global decision-making about the direction of the global economy and public policy. (ICA-AR14)

## Phase III: Oppositional conformity

In the third period, under a new leadership (new director general, new statistics officer, new communication manager, etc.), the ICA invested in the other dimensions of quantification beyond the ranking of the largest co-operatives. It also increasingly considered the way in which quantification could respond to the members' needs. In doing so, it sought to better reflect the diversity of members, including the smaller and more radical cooperatives eager to display their distinctive features, for example participative governance and quality of work. Externally, this was reflected through a rationale that combined both conformity and opposition, which was acknowledged by international institutions. One avenue towards this balance was to present co-operatives as having "distinctive impact", i.e. fitting into the goals set by international institutions (such as the Sustainable Development Goals) yet claiming a unique, distinctive approach towards reaching these goals.

If [the ICA] wants to argue the case for a policy that favours co-operatives, they have to demonstrate that they are important to economic development, that, under certain circumstances, they can be better than other business types at doing it, and that supporting cooperatives will pay off. Without statistics to back up the case, those who are making it will probably fail to convince the sceptics. (ILO6)

The idea of the monitor is now not just prove that large co-operatives exist but to provide some data to show that these large co-operatives act differently from other large enterprises. [...] If you focus too much on "okay, co-ops are businesses", then you go too far any other direction you get away from why co-ops are different. Okay, yes, they are businesses, but let's remember, why they are and what the core principles are. And how we make a difference in the world. [...] And so now we're getting back into the "who are we?". (interview 22, Euricse) Accordingly, the focus of the quantified object was rebalanced. First, the quantification in the context of the WCM was connected with the other quantification projects developed in collaboration with partner institutions such as the ILO. Second, even though the list of the largest cooperatives was maintained to ensure the continued visibility of large organizations, the focus was reoriented to quantifying the whole population of cooperatives, including all the smaller organizations.

I think that there is a confusion that we should avoid, between showing that we are an important sector of the economy on the one hand and showing that we have huge cooperatives on the other. We don't need to, let's say, to consolidate the results of the Global300, which as we know is more of the equivalent of the GDP of Canada, in order to show that the co-operative movement is important economically speaking. (interviewee 13, ICA)

Moreover, regarding the definition of the cooperative boundaries, in the third period the intent was to refocus the attention on cooperatives that genuinely complied with the principles set by the ICA – thus combining the rigor pursued in the second period with a normative agenda emphasizing the distinctiveness of the cooperative form.

If you talk with statisticians, they will say [that] one should include every enterprise that is legally established as a cooperative, by definition [...]. But if you talk with [the new ICA staff], they would like to go deeper and find a way to measure the co-operative identity of an organization. So to look at the seven principles and to find a way to say okay, beyond the fact that this organization is legally speaking a co-operative, it also acts according to the seven co-operative principles. (interview 21, Euricse)

This had implications on the quantification work, in particular the set of indicators that was extended to include employment, participation in governance, and more broadly impact in addressing the sustainable development goals. Beyond the quantification work, qualitative evidence was also increasingly provided as a way to gain depth and fluidify communication to non-expert audiences. Through the appointment of a coordinating statistical officer within the ICA, the rigor and the international standardization were further improved. The international guidelines for collecting statistics, as defined by the ICLS, were increasingly used as a common background for developing the different dimensions of the quantification project. Hence, the

WCM was no longer seen as a stand-alone project but rather as one key element within the broader effort to map cooperatives internationally.

Before the goal was to [...] know the number of cooperatives and measure their turnover, now it is more about measuring their impact, we must produce indicators about employment, economic performance, achieving sustainable development goals, where there are expectations from different stakeholders internationally. So we try to produce statistics to document the achievement of SDGs. (interview 17, ICA)

In my view, both the quantitative and qualitative aspects are very important. [...] I think it's important to keep investing time in human resources and also gathering qualitative data and stories [that are] also more, how to say, relatable to the general public? (interview 27, WCM steering committee)

When it comes to reactivity, in the third period there was an increased willingness to further use quantification to involve cooperatives in the movement. For example, the ICA staff involved in the WCM asked large cooperatives to provide quantitative information in order to be eligible for the list, thereby requiring active participation in and affiliation to the cooperative movement. Through collecting data on governance, the ICA also sought to sensitize cooperatives about their distinctiveness. Finally, there is evidence that the ILO, the UN and other international institutions increasingly used the statistical evidence to acknowledge cooperatives as a distinctive and impactful actor.

The Monitor and [statistics] are assets available to co-operatives wanting to differentiate themselves in the marketplace from privately-owned businesses with their co-operative identity. Co-operatives now have strong tools for measurement and helping those outside the movement understand the importance and weight of the movement on a global scale. (WCM17)

I can see the reaction of the policymaker in front of me, be that person from the European Commission, from the state, from the UN, from the ILO, whatever, you name it. When you come up with some kind of figures, the reaction is completely different. (interview 14, ICA)

Finally, regarding retroaction, the ICA's leadership role was further developed towards partners, especially international institutions. Quantification served to position the ICA as a reliable, well-recognized apex organization at the international level.

Our comparative advantage is that we can say that we can claim that we are the only movement of enterprises of the global level. No other types of enterprise can say to belong to a movement [...] which even goes beyond the national borders [...]. The ICA did exist even before the European Union. [...] And, there are no other similar movements. Everything the cooperative movement as a whole does to gain more visibility, it has a great impact on us. [...] so if this ICA publication [the WCM] helps get some visibility on the cooperative model everyone can benefit. (interview 20, Cicopa)

#### Discussion

The goal of this research was to explore how collective quantification through a metaorganization shapes and reflects the way in which the paradox between opposition and conformity is managed when advocating for alternative organizational forms. We found that this paradox was managed in an increasingly balanced way by the ICA. First, from 2005 to 2010, an experimental ranking project (the "Global 300") was led by a small team within the ICA. We found that quantification was inspired by an aesthetic discourse displaying cooperatives as large, successful economic actors – thus seeking to demonstrate visibility and market conformity. This led to collecting and diffusing data on a small set of the largest cooperatives, even if these organizations did not necessarily comply with the cooperative principles. Their cumulated turnover was used as a proxy for the size of the cooperative movement, compared with the equivalent GDP of given countries. The project involved little collaboration both internally with members and externally. Second, from 2011 to 2016, to move beyond this aesthetic account, the global 300 was replaced with a more structured ranking project (the "World Cooperative Monitor") led by the ICA together with a research centre. The visibility and conformity dimensions remained but were complemented with validity and distinctiveness concerns, emphasizing the reliability and uniqueness of cooperatives. The indicators were extended to other concerns than turnover, and balanced with the help of qualitative information. The process increasingly involved the members as well as other

international institutions such as the ILO, reinforcing ICA in its role of apex and guardian of both the visibility and the distinctive identity of cooperatives worldwide. Third, from 2017 to 2020, the WCM ranking was integrated into a broader effort led by a coalition of the ICA and global institutions to collect statistics on cooperatives worldwide. The visibility and conformity-oriented quantification discourses were complemented with a focus on presenting cooperatives as a distinctive, alternative organizational form. Quantification was used to present cooperatives as large, reliable and alternative organizations. To this end, the boundaries of the cooperative form were clarified in the WCM and in the statistical data collection, and the efforts were no longer focused on the largest cooperatives but were extended to the whole cooperative population. The process was increasingly collaborative both internally and externally, further encouraging cooperatives to embrace their distinctive identity.

These findings aim to bring two main contributions. First, we contribute to the literature on alternative organizational forms (Barin Cruz et al., 2017; Parker et al., 2014) and more particularly on the inherent paradox between opposition and conformity (Fridell, 2003). Such paradox has mainly been examined at the organizational level, for example through the interactions in the founding team (Dufays, 2019), among the staff (Ashforth & Reingen, 2014) or on the board of directors (Crucke & Knockaert, 2016; Ebrahim, Battilana, & Mair, 2014). However, there has been less work on how this paradox is managed collectively among alternative organizations when advocating for their distinctive form, typically through metaorganizational structures (Audebrand & Barros, 2018; Davies, 2009). While quantification may appear as a technical issues, our findings suggest that it offers a window through which to document how meta-organizations manage the drive to appear as conform to societal expectations while simultaneously advancing their oppositional nature (Mair & Rathert, 2019). Our findings suggest that it may be easier for alternative organizations to start by addressing one side of the paradox, typically conformity through using established quantification patterns. For the ICA, the quest for conformity led them to focus on building visibility and aesthetically portray cooperatives as a powerful economic force. However, such focus is likely to attract critiques from members and stakeholders who are concerned with the alternative, oppositional nature of the organizational form. This led in the subsequent phases to balance quantification towards acknowledging the opposition side of the paradox, through a broader array of projects, indicators and stakeholders and through a focus on a more strictly defined organizational population. We thus suggest that alternative organizations collectively engaging in advocacy may use a broad approach to quantification to achieve a balance between opposition and conformity.

Second, our findings also add to the literature on quantification. While most work has examined the effects of third-party quantification on target organizations (Elsbach & Kramer, 1996; Espeland & Sauder, 2007; Weber, 1978), we examine the process of self-quantification through which distinct (alternative) organizations collectively quantify themselves. Collective selfquantification is by definition more concerned with the outcome of quantification than thirdparty quantification (Espeland & Sauder, 2007). Indeed, self-quantification directly feeds the advocacy of the organizational population, which in the case of alternative organizations seeks to pursue both conformity and opposition. Our findings suggest that the quantification lens introduces a second continuum that runs orthogonally with the conformity-opposition paradox: the distinction between the aesthetic and validity dimensions. Aesthetic quantification, as developed by the ICA in the first phase, helps build visibility, which may serve either conformity or opposition – in the case of the ICA economic visibility served to appear as worthy of attention to market audiences. Nevertheless, aesthetic quantification is difficult to combine with validity, which appears problematic when conformity is sought with audiences that value validity. In our case, as the ICA sought to capture the attention of international institutions in the second phase, they had to balance the aesthetics of the quantification project with stronger validity. Such balance, further pursued in the third phase, also contributed to managing the opposition-conformity paradox. We thus suggest that an alternative organizational population seeking to appear as both conform with and distinct from default societal expectations may use the different dimensions of quantification, in particular the aesthetic and validity components, to achieve its purpose. The combination of different quantification tools, for example in our case a ranking and an extensive counting project, may enable flexibility and help both involve internal members and appeal to external audiences.

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Туре	Descriptor	Details
Documents		
International Co- operative Alliance (ICA) Annual Report	ICA-AR00	ICA Annual Report 2000
	ICA-AR01	ICA Annual Report 2001
	ICA-AR02	ICA Annual Report 2002
	ICA-AR03	ICA Annual Report 2003
	ICA-AR04	ICA Annual Report 2004
	ICA-AR05	ICA Annual Report 2005
	ICA-AR06	ICA Annual Report 2006
	ICA-AR0708	ICA Annual Report 2007-2008
	ICA-AR09	ICA Annual Report 2009
	ICA-AR10	ICA Annual Report 2010
	ICA-AR11	ICA Annual Report 2011
	ICA-AR12	ICA Annual Report 2012
	ICA-AR13	ICA Annual Report 2013
	ICA-AR14	ICA Annual Report 2014
	ICA-AR15	ICA Annual Report 2015
	ICA-AR16	ICA Annual Report 2016
	GLOB06	ICA Global 300 2006
	GLOB07	ICA Global 300 2007
	GLOB08	ICA Global 300 2008
	GLOB09	ICA Global 300 2009
	GLOB10	ICA Global 300 2010
Global 300 and World Cooperative Monitor	GLOB11	ICA Global 300 2011
	WCM12	World Co-operative Monitor 2012
	WCM13	World Co-operative Monitor 2013
	WCM14	World Co-operative Monitor 2014
	WCM15	World Co-operative Monitor 2015
	WCM16	World Co-operative Monitor 2016
	WCM17	World Co-operative Monitor 2017
	ICAPR1	Press Release WCM 2014
International Co-	ICAPR2	Press Release WCM 2017
operative Alliance	ICAREP1	Blueprint for a co-operative decade 2012
(ICA) other	ICAREP2	Co-operatives & the Enabling Environment 2015
documents	ICAREP3	Guidance Notes to the Co-operative Principles, 2015
	ICAREP4	Doing Co-operative Business Report, 2016
Committee for the	COPAC1	Guidelines for a Cooperative Legislation, 2015
Promotion and	COPAC2	Cooperatives and the Millenium Development Goals, 2015

## Table 1 : List of documents

Advancement of Co-operatives	COPAC3	Summary of the main discussions and conclusions, COPAC Multi-stakeholder Workshop on Statistics on Cooperatives,
(COPAC) reports	COPAC4	Rome, April 2016 Conclusions of the Technical working group on cooperative
		statistics, Geneva, May 2017
International Labour Organization (ILO) reports	ILO1	Mapping Exercise on Statistics on Cooperatives, January 2016 Conducting country case studies for advancing global
	ILO2	statistical system on cooperatives, July 2016
	ILO3	Conceptual Framework for the Purpose of Measurement of Cooperatives and its Operationalization, February 2017
	ILO4	Use of statistics on cooperatives in national policy making, March 2017
	ILO5	Terms of References for National Practices in Developing Statistics on Cooperatives, March 2017
	ILO6	Study on the use of statistics of cooperatives in development plans, Johnston Birchall, October 2017
International Conference of Labour Statisticians (ICLS) reports	ICLS1	Resolution concerning further work on statistics of cooperatives, the 19th International Conference of Labour Statisticians, Geneva, October 2013
	ICLS2	Working documents on statistics of cooperatives, the 19th International Conference of Labour Statisticians, Geneva, October 2013
Member reports	CICOPA1	CICOPA, Industrial and Service Cooperatives Global Report 2013-2014
	CICOPA2	Lessons from country case studies on statistics on cooperatives – toward common definition, classification and methods at the international level
	CICOPA3	CICOPA, Annual Report 2015
Research reports	RES1	Cronan, G. (2007), "The Global 300 project – measuring co- operative performance and difference", <i>Review of</i> <i>International Cooperation</i> , 100:1, 15-23
	RES2	Cronan, G. (2007), "Les 300 premières coopératives et mutuelles mondiales, classées par l'Alliance Coopérative Internationale", <i>Rapport moral sur l'argent dans le monde</i> 2007, Association d'économie financière.
	RES3	MacPherson, I. (2010), "What differences does a century make? Considering some crises in the international cooperative movement, 1900 and 2000", <i>Euricse Working Papers</i> , 017:11
	RES4	Brown, L., Carini, C., Nembhard, J., Hammond Ketilson, L., Hicks, E., McNamara, J., Novkovic, S., Rixon, D. and Simmons, R. (2015), "Co-operatives for sustainable communities. Tools to measure co-operative impact and performance", <i>Sobey School of Business</i> .
	RES5	Cronan, G. (2015), "The significance and performance of large global cooperative and mutual businesses during the period 1980 – 2015", <i>Personal communication</i> .
Websites		· · ·
	ICAWEB	ICA Website
WEB	ILOWEB	ILO Website, pages on Co-operative statistics
	COPACWEB	COPAC Website

	First round (2017-2018)				
<u>#</u>	Role	<b>Organization</b>			
1	Current General Director	ICA			
2	Previous General Director	ICA			
3	Director of Membership	ICA			
4	Communication Manager (former)	ICA (progenitor of "Global 300")			
5	Communications Manager	International Organization of Industrial and Service Cooperatives (CICOPA)			
6	Chief Data Analyst	CICOPA			
7	Communications Officer	Cooperatives Europe (ICA Regional)			
8	Director, Member of WCM Steering Committee	University			
9	WCM Coordinator	EURICSE (European Research Institute for Cooperative and Social Enterprise)			
10	WCM Researcher	EURICSE			
11	Chair, Technical Working Group on Statistics of Cooperatives	University			
12	Policy Officer	COPAC (Committee for the Promotion and Advancement of Cooperatives)			
	Second round	1 (2019-2020)			
	Role	<b>Organization</b>			
13	Current General Director	ICA			
14	International Development Dir.	ICA			
15	Communication Manager (former)	ICA			
16	Communication Manager	ICA			
17	Data Analyst	ICA			
18	Member	ICA Research Committee			
19	Thematic Committee Chair	ICA (and ICA Board)			
20	Development and Studies Officer	CICOPA (ICA Sectoral)			
21	WCM Coordinator	EURICSE			
22	WCM Researcher	EURICSE			
22 23					
-	WCM Researcher	EURICSE			
23	WCM Researcher EURICSE General Secretary	EURICSE EURICSE, WCM Steering Committee			
23 24	WCM Researcher EURICSE General Secretary Member (Japan)	EURICSE EURICSE, WCM Steering Committee WCM Steering Committee			
23 24 25	WCM Researcher EURICSE General Secretary Member (Japan) Member (Asia-Pacific)	EURICSE   EURICSE, WCM Steering Committee   WCM Steering Committee   WCM Steering Committee			
23 24 25 26	WCM Researcher EURICSE General Secretary Member (Japan) Member (Asia-Pacific) Member (Australia)	EURICSE   EURICSE, WCM Steering Committee   WCM Steering Committee   WCM Steering Committee   WCM Steering Committee			
23 24 25 26 27	WCM ResearcherEURICSE General SecretaryMember (Japan)Member (Asia-Pacific)Member (Australia)Member (Canada)	EURICSE   EURICSE, WCM Steering Committee   WCM Steering Committee			