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The art of collective “making do”... when silos are gone!

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Sub-theme 52: The Art of Making Do and the Sciences of Organizing in Future Health Care

Introduction

For several decades now, the healthcare sector is exposed to multiple pressures, making it continuously instable, with growing institutional requirements, sometimes full of contradictions. In such an environment, healthcare organizations need to develop strategies to position themselves in their competitive environment: reaching a critical size (possibly through alliances or clusters), increasing specialization, etc. Organizations build strategic visions by navigating between the different requirements in the field. In this context, the question of how workers cooperate and coordinate themselves within the organization, takes another meaning.

Healthcare organizations work in a specific way that a literature often described as structured around professional silos. Following this literature, rationalities would be multiple, sometimes contradictory, or at least dispersed relative to the patient, theoretical focal point of these organizations. Each silo would work tightly with no real links with other silos, thus giving the appearance of multiple worlds ([Glouberman & Mintzberg, 2001](#)). This would not be obviously without any consequences for cooperation and coordination. Moreover, managers (directors, physicians and healthcare managers) would be, from this point of view, the core element of action: they would be linchpins of the “do”; but they would guide, according to the prevailing pressures and objectives of the silo, which they would be attached to. It would thus be difficult to move towards collective coherent action. This would be fragmented.

It is therefore relevant to question the link between the existence of these silos and the ability to make collective action. If the existence of silos were confirmed, then issues of strategic deployment and internal convergence would arise with greater force. Our proposal seeks to answer to one preliminary but fundamental question: is the healthcare organization seen as composed of silos a relevant representation?

1. Background

Literature in organization theory has rarely used the concept of organizational silo. It addresses the phenomenon through other concepts that the silo metaphor implicitly refers to. Conversely, literature specifically focused on the functioning of health care organizations explicitly mobilized the concept of silo. The purpose of this section is twofold. (1) It is first put into perspective the silo phenomenon across the organization theory literature. We do this by linking the concept of silo at various theoretical developments: internal differentiation, alignment (or misalignment), conflicts between professional spaces and organizational

spaces. (2) The purpose of this section is then to draw a panorama of representations of a health care organization as a silo organization.

From differentiation to organizational silos

The organizational silo topic finds its parentage in an old tradition of organization theory. Conceptually, organizational silo exists only if one conceives a *minima* that the organization may be comprised of components that can be differentiated with respect to each other. This is the case for contingency approaches. [Lawrence & Lorsch \(1967\)](#) find that, within an organization, components or sub systems operate in proper sub environments. This leads them to differentiate on several dimensions as temporal orientation or nature of formal interactions. Differentiation - primarily functional in the seminal works that refers to it - is a premise for modeling the organization as a set of silos.

Theories on strategic alignment may also be mentioned. They are based on the idea of an organization consisting of parties that should be aligned. The alignment is a consistent formatting of these parts, or relative to the environment, or with respect to the strategy. Two forms of alignment were studied ([Kathuria, Joshi, & Porth, 2007](#)): vertical and horizontal alignment. The first refers to combinations of strategies, overall goals, action plans and decisions. Vertical alignment is achieved when a form of consistency between these different levels has been found. This harmony takes the form of a coherence of strategy, structure and system. The horizontal or lateral alignment refers to the inter or intra functional integration. The inter-functional integrating is consistency between decisions taken in different functional areas, so that each function can play its role to support other functions. Intra functional integrating is related to the coherence between the different decision territories so that synergies within each function may be found. Naturally, the operation by silo would refer to misalignments (including horizontal) and numerous studies have shown the effects of misalignment on the performance of organizations ([Ping, Wu, Straub, & Liang, 2015](#); [T. M. Smith & Reece, 1999](#); [Walter, Kellermanns, Floyd, Veiga, & Matherne, 2013](#); [West & Schwenk, 1996](#)).

Contributions on differentiation and alignment make possible a model of the organization made of functional fragments. Other developments interest us because they introduce the concept of professional space in the sense of territories that present standards, cultures, norms, practices, that are specific to a category of expertise (not a function). We discuss here the literature concerning the relationship between professional spaces and organizational spaces. These researches highlight situations of conflict or dualism that the silo metaphor hides ([Noordegraaf, 2011](#)). On the one hand, the turbulence of the

environment forces professionals to develop standards that transcend organizations. This goes against the principles of control of the organization and contributes to the emergence of professional spaces (enclaves) with their own cultural references. On the other hand, professionals face new external demands that lead to new answers that implies collaboration between different business units and the breakdown of barriers between professional spaces in favor of an integrated organizational space, not landlocked.

There is a tension between professional and organizational spaces, which are connected to some of the organizational paradox situations identified by [Smith & Lewis \(2011\)](#). These identity paradoxes go far beyond the only professional identities paradoxes. Indeed, there may be conflict between personal identity and the identity of the group to which one belongs or the image of the organization to which one belongs ([Sveningsson & Alvesson, 2003](#)).

The metaphor of the silo is concerned with some of these tensions, conflicts and paradoxes. Many images are contained in the expression of “organizational silo”. A silo is a pit in the earth for storing plant products in the insulation of air and water. An organizational silo describes separate organizational components that do not communicate together. An organizational silo hence indicates a lack of continuum within an organization between different functions, between occupational groups or between different levels of the organization. The silos may not physically exist in the organization but they are present in the perceptions of actors and constitute barriers of distrust between “us” and those who are not “like us” ([Diamond & Allcorn, 2004](#)). Organizational silo also refers to grain container which is a protective envelope suggesting that what is inside is safe and what is outside is bad. Several studies in psychology show that the silos are thus formed from experiences of paranoid behavior and schizophrenia ([Diamond & Allcorn, 2009](#)). The study made by [Cilliers & Greyvenstein \(2012\)](#) suggests that silos attitudes consist of defensive behavior in resistance to a tacit model of integrated organization, in the form of invisible barriers between subsystems.

Health Organization, images of a silo organization

Intra organizational cooperation is at the heart of a lot of work on the study of the functioning of health care organizations ([Blondiau, 2015](#)). In large part, the level of quality of care results from the cooperation between professionals and between units. However, such cooperation does not self-will and health care organizations are often described as consisting of enclaves. Several illustrations in the literature attest it.

First, we find in many works, warlike metaphors of defensive behavior attached to the silo mentality in health care organizations ([Axelsson & Axelsson, 2009](#); Jones, McCullough, &

Richman, 2005) evoking turf wars between professionals. Second, the awareness of the existence of professional silos in health facilities during the 2000s, led to think of many ways to reintroduce forms of lateral integration. Among these solutions, we remember the one that consisting of training clinical nursing leader, patient group leaders in a unit responsible for coordinating the actors on a transverse care plan ([Begun, Tornabeni, & White, 2006](#)). We even include functional and managerial hybridization (managers clinicians) likely to make consistent professional identities with managerial requirements ([McGivern, Currie, Ferlie, Fitzgerald, & Waring, 2015](#)), to reduce occupational logics conflicts ([Kippist & Fitzgerald, 2009](#)) and likely to introduce forms of distributed leadership ([Fulop, 2012](#)), presented as one of the key factors for successful transformation of healthcare systems ([Best et al., 2012](#)). Third, more generally, the proliferation of academic and professional literature on interprofessional collaboration practices shows the growing attention to issues related to the state of the work relationship between hospital professionals ([Thistlethwaite, Jackson, & Moran, 2013](#)).

The presence of enclaves in health care organizations can result from two types of cleavage: vertical and horizontal. The vertical cleavage distinguishes the members of the organization according to the degree of formalization of their membership in the institution. The horizontal division between doctors and caregivers on the one hand, administrative and stakeholders on the other, is due to the fact that the former are clinically involved and not the latter.

There is thus, according to [Glouberman & Mintzberg \(2001\)](#), four worlds within these organizations: institutional community around the hospital (stakeholders or "trustees"), the management of the hospital, the medical community and finally the caregivers. There is a vertical and horizontal separation between these 4 universes (see figure below). The vertical dimension refers to the distinction between control activities and control and operations. The horizontal dimension refers to the intensity of the participation of stakeholders in the organization.

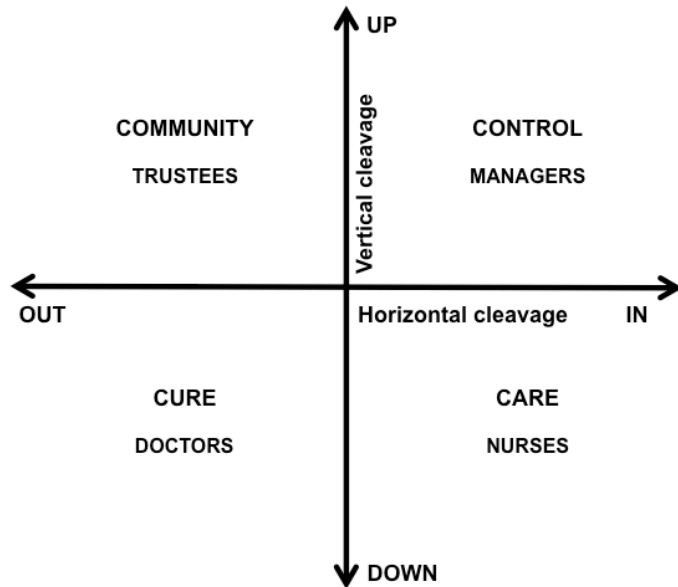


Figure 1: The 4 worlds of healthcare organizations (Mintzberg & Glouberman, 2001)

In every sphere, the mode and the involvement intensity of actors are not the same. Doctors have a possibly intermittent engagement because mobilized on specific actions with patients, in contrast to caregivers (carers are also torn between doctors responsible of patients but absent). Directors monitor a set of relatively autonomous enclaves. External stakeholders can not really influence the management of the hospital. For each of the world, the stakes are therefore fundamentally differentiated: procedure for the medical, coordination for caregivers, control for the direction and supervision for stakeholders. The health care organization is generally characterized by a large (and growing) differentiation between these worlds and there is a strong needs that integration mechanisms can be mobilized.

The study by Klopper-Kes, Meerdink, van Harten, & Wilderom (2009) validates several stereotypical images of the health care organization as a fragmented organization. In part, this characteristic of healthcare organizations is explained by the state of dyadic relationships between doctors and hospital directors. In particular, the authors confirm the picture that shows doctors as opposed to organizational changes which limit their professional freedom and one that shows directors as considering doctors as obtuse and unable to eye level. Another study shows that doctors involvement in health care organizations governance is however a key success factor of change in these organizations (Best et al., 2012). The study by [Succi, Lee, & Alexander \(1998\)](#) highlights, moreover, the fact that doctors perceive that trust between them and directors is best when doctors can intervene with more power on various decision making areas. The integration of doctors in important decisions of the

hospital increases social control in the sense of securing the necessary cooperation processes in the functioning of the organization.

Several reasons explain the presence of enclaves. The silos behaviors and the difficulties of cooperation and inter-professional collaboration in health organizations are linked to strong cultural barriers that education and socialization processes have helped to establish. [Hall \(2005\)](#) shows in particular that throughout history, different occupational components within healthcare organizations have struggled to build their own professional identities. Moreover, professionals have been trained in different socializing places with very different characteristics between professional categories: doctors are trained to operate in a highly competitive academic environment while nurses are trained to work by team. It follows from all this that professionals have developed a wide range of cognitive patterns and ways to view the same situation differently ([Petrie, 1976](#)).

Furthermore, there is a strong link between organizational identification ([Dutton, Dukerich, & Harquail, 1994](#)) and coherence in a context of ambiguities and uncertainty ([Sveningsson & Alvesson, 2003](#)). According to these authors, the cooperative behavior of doctors can thus be explained in part by their identification to the organization (organizational identification as defined by [Dutton et al. \(1994\)](#)). The strength of organizational identity is itself explained by the perceived attractiveness of the healthcare organization by doctors ([Dukerich, Golden, & Shortell, 2002](#)).

The relationship between enclaves and organizational identification broadens how to consider enclaves in healthcare organizations. It is indeed interesting to note that the literature has addressed the issue of enclaves, fragmentation or silos, mainly through low-cooperative behaviors that result (or through dyadic relationships between professional categories). There is room to address the issue of the fragmented healthcare organization in another way by considering the intensity of links going from various professional categories, to other categories or enclaves (the dyadic conception), but also to the entire organization, to the environment. From a dyadic conception of fragmentation, we propose to move to an integrated one.

We finally note that the organizational fragmentation can be seen also from the perspective of the whole healthcare system, consisting of regulatory authorities, different healthcare organizations with complementary activities, etc. Discontinuities between these components appear with breakthroughs in information flows, strategic alignment failures ([Cebul, Rebitzer, Taylor, & Votruba, 2008](#)). These gaps and difficulties to cooperate are themselves explained by silos behaviors of healthcare organizations leaders ([Bevc, Retrum, & Varda, 2015](#)).

Incidentally, the change of scale (the passage from intra organizational fragmentation to inter organizational fragmentation) allows considering the organization itself as a whole enclave rather than the organization composed of enclaves.

2. Methodology

Our research is based on collaboration with an organization that manages 9 healthcare facilities. This organization (called 'Group') is regional in size. We specifically worked with 2 of these 9 facilities (which we call 'A' and 'B', afterwards).

These two facilities are similar in many ways. First, A and B are involved in the same type of activities: gerontology (the care of elderly and dependent patients), and the care and rehabilitation (consisting of the treatment of patients who recently have surgery in an other specialized health facility). So they share a kind of activity that places them downstream cure and care processes. A and B are also located on the same type of territory: a rural area rather far from major urban centers and very little provided in health facilities. The size of the two institutions is small but corresponds to that of the majority of the region's health facilities in which the Group operates. The numbers of employees differ between the two facilities (60 for one and 120 for the other) but we find the same professional categories: nurses mainly, physical therapists, physicians, healthcare managers and administrative staff. The structure is identical in both cases: a classical hybridization of functional and divisional structure. The unit managers are doctors; health care teams are the responsibility of health managers; directors, in direct contact with the executives of the Group, head the institutions.

Our study is exploratory and is based on a methodological framework, to our knowledge, unprecedented. A qualitative material was collected from all the managers of the two institutions as well as the Group's headquarters. We have implemented a hybrid design research, based on qualitative and quantitative analysis techniques. The method is structured into 5 steps. The figure below shows the research design and articulation between the different phases.

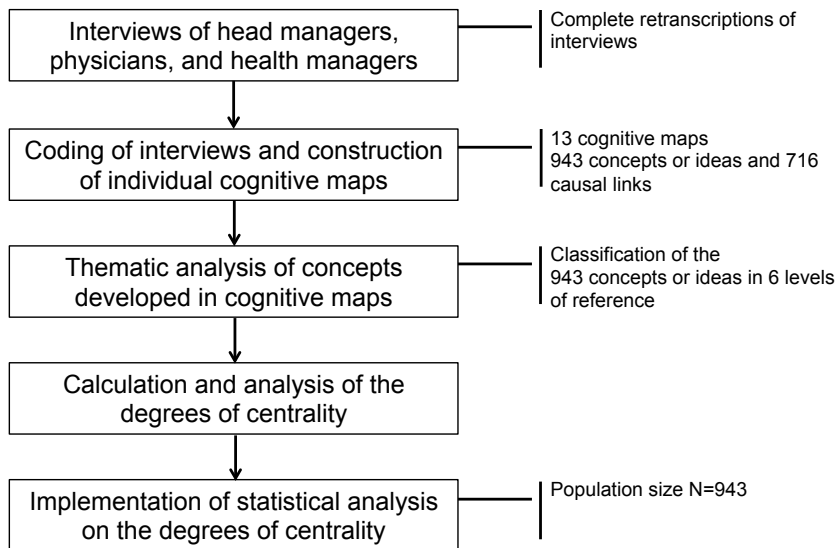


Figure 1: Research design

Representatives of three professional categories associated in the literature with 3 separate professional silos were interviewed: 5 directors (2 directors of the Group headquarters and 3 post in institutions), 4 physicians (all in a position of responsibility of one unit) and 4 health managers. The semi-structured interviews that were conducted were based on an interview grid for addressing systematically and on a principle of semantic saturation the following themes: the CV of respondents, functions and roles of these managers, the general situation of the institution and the specific problem of absenteeism.

The 13 interviews were double coded as cognitive maps, according to a protocol described by Wrightson (1976). A cognitive map is a graphical representation of discursive representations that an individual builds about a problem or a situation (Axelrod, 1976; Eden, 2004). This is a graph on which are represented ideas and causal links between these ideas. The use of cognitive mapping techniques for discourse analysis is recent. It has concerned the understanding of the formation process of the strategy, representations and practices of managers (Calori, Johnson, & Sarnin, 1994; Clarke & Mackaness, 2001; Fiol & Huff, 1992; Grinyer, 2000; Tyler & Gnyawali, 2009). That is why we use these techniques. The double coding has highlighted 943 concepts or ideas and 716 causal links on all maps.

Our research is based on the assumption that silo logics as we have described them in our literature review can be identified through the analysis of the structure of managers' discourses. The silo logic can be detected by identifying the elements considered central by managers. A central idea is the one that typically intervenes in different reasoning chains. So we did the analysis of 943 ideas by identifying, for each, what sphere (or levels of reference) it concerned. This sphere could be the individual, in a self-centered logic (the idea developed

by the manager regards him/her and only him/her individually). At the opposite extreme, it could be the environment in the broad sense (the idea developed by the manager concerns institutions in the field of healthcare, the sector, society, etc.). Between these two extremes of a continuum, the sphere could correspond to 4 possible levels of reference, more or less close to the manager: a level centered on the immediate environment of the interviewed manager (the team, or unit which the manager is in charge of, or his/her professional category); a broader level, including other professional groups or other components of the institution; a level corresponding to the facility as a whole; finally a level corresponding to the Group (or at all facilities operated by the Group). To summarize, we have been led to classify the 943 ideas in these six categories or levels of reference, relying on a thematic analysis of the kind proposed by [Miles & Huberman \(1994\)](#):

- The environment,
- The Meta organization,
- The facility,
- The Expanded nearby silo,
- The immediate nearby silo,
- The individual.

Note that the 'immediate nearby silo' refers to the professional silo of the interviewed managers.

Conventionally, an analysis of occurrences of words appeared in the interviews could have been made. For each level of reference, a summary of these occurrences could even have been conducted but this would not have emphasized the structure of reasoning that we wish to analyze in this research. An important frequency of appearance of concepts attached to the immediate nearby silo in the speech of a person does not necessarily mean that the person adopts a "silo way of thinking". This way of reasoning will be recognizable by analyzing the centrality of concepts developed by a respondent, when highlighting that his/her concepts assigned to the immediate nearby silo level of reference are placed at the center of a large number of arguments, that is to say in dense interconnection with many other concepts. The coding form of cognitive maps enables to distinguish the 'frequency of occurrence of a concept' and the 'centrality of the concept in a system of reasoning'. Eden (2004) describes several tools for analyzing cognitive maps. The degree of centrality introduced in the work of Axelrod (1976) is one of them. The centrality of a concept or an idea is measured with the number of incoming and outgoing links of the given concept on the map. We use a normalized version of this indicator taking into account the maximum centrality in the map. Logically, this indicator is therefore a number between 0 and 1 (1

indicates a maximum centrality relative to the centrality of the other concepts of the map; 0 means that the concept is not connected at all to any other concepts).

Three rounds of quantitative analysis were then conducted on the degrees of centrality to explore the reality of the existence of silos within our facilities, as indicated in the table below.

Object of analysis	Objective	Method
Structure of managers discourse	To identify factors which explain differences between managers' discourse structures (facility membership, professional category, etc.)	Variance analysis Means comparison tests
Levels of reference	To identify the most central levels of reference	Contrasts analysis and means comparison tests
Professional categories	To analyze levels of reference using the prism of professional categories	Variance analysis Contrasts analysis and means comparison tests

Table 1: Description of the quantitative data analysis

We note that the quantitative statistical analyses were performed on the population consisting of 943 concepts. It is this statistical population, and not the population consisting of 13 managers, which was our studied population. In fact, our qualitative analysis does not seek a statistical representation of the overall population of managers in healthcare organizations. This is a usual posture in qualitative research (Pope, Ziebland, & Mays, 2000). However, quantifying qualitative data is not usual. In our study, it is based on cognitive maps. The statistical data used are derived from maps analysis indicators. To our knowledge, this type of coupling between qualitative data coded in the form of cognitive maps and statistical analysis has never been attempted. This research design came to support an exploratory research. The singular methodological proposal in our work is a further contribution of our research.

3. Findings

Three series of tests were conducted to check the existence of silos representation within the population of managers in our two facilities. If directors, doctors and health managers can have distinct discourses making differently reference to the six levels of reference mentioned above, the analyzes fail to put into perspective the dominance of a logic of professional silos within the institutions A and B.

A first set of results allows highlighting variables that could impact the discourse structure of the surveyed managers. A first test was to check the influence of the facility membership on the degree of centrality that managers give to different levels of reference and especially their professional silo. A variance analysis was performed on the average degree of centrality of both institutions A and B, with calculating the contrast values. It has been concluded that the facility membership does not explain differences in degrees of centrality between managers.

The same kind of analysis was conducted to test possible differences in perception according to the occupational category. The test is significant, the degree of centrality of the levels of reference being different according to the occupational category. The discourse structure is different for each level of reference by occupational category. Managers therefore do not give all, in their discourses, the same importance and influence to the various levels of reference. This result also allows checking the validity of the classification in 6 levels, centrality differences between levels being significant.

A second series of tests was to compare the different levels of reference based upon the centrality of their concepts without distinguishing professional category. A first test clarifies how managers structure their speech between the internal and external levels of reference. For this, we used an analysis of contrast for comparing the average degree of centrality of internal levels of reference (individual, immediate nearby silo, expanded nearby silo, facility) to the average degree of centrality of external levels of reference (meta organization, environment). This comparison indicates a greater centrality of internal levels, this very significantly (bilateral significance close to 0.000). In other words, to describe the way the organization works, respondents give, on average, a higher importance to the internal levels of their organization than levels located outside of the organization.

A ranking of the levels of reference according to the degree of centrality confirms and refines this result. The immediate nearby silo is in 4th position, behind the other internal levels of reference, but before the external levels of reference (meta organization and environment).

A contrast test consisting of comparing the centrality of immediate nearby silos with the one of other levels of reference has been achieved. Whatever professional category, the

immediate nearby silo is never the most central, except vis-à-vis the meta organization and the environment. Bilateral comparison tests of mean of the centrality of levels of reference (pairwise comparison of the levels of reference centrality) are used to be more accurate on this result. They consist of comparing levels of reference centralities between them. Among the significant results, we notice that the environment is never more central than the other levels and the meta organization is the more central only when it is compared with the 'environment' level.

A third set of results finally refines the discourse structure by occupational categories. As was clear from the outset, the professional category significantly influences the degree of centrality of the different levels of reference (see table 2). In other words, managers do not all adopt the same reading grid of their professional environment.

Professional category	F*	ddl1	ddl2	Bilateral significance
Directors	2.279	5	49.714	.061
Health managers	3.580	5	76.725	.006
Doctors	3.423	5	108.907	.007

*F with Welch correction

Table 2: Variance analysis of degrees of centrality by professional category

This is particularly significant for health managers and doctors (bilateral significance test is less than 0.01), to a lesser extent for the directors (bilateral significance test is less than 0.1¹).

A more detailed analysis of these results determines, for each occupational group, the most central levels of reference in discourses.

Professional category	Levels compared to the immediate	Contrast value*	Standard error	t	ddl	Bilateral significance	Unilateral significance
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¹ Bilateral test to conclude a statistically significant difference in the average of 2 compared centrality. A test at 5% (0.05) is conventionally adopted. To the extent that the study presents an exploratory nature, tolerance up to 10% (0.1) was admitted.

	nearby silo (IS)					ce	ce
Directors	Expanded silo vs. IS	- .038333	.038923 8	-.985	81.392	.328	.164
	Meta organization vs. IS	- .079462	.033976 0	- 2.339	58.141	.023	.011
	Individual vs. IS	- .014333	.045906 1	-.312	14.999	.759	.380
	Facility vs. IS	- .062374	.042793 6	- 1.458	106.72 1	.148	.074
	Environment vs. IS	- .017429	.034307 6	-.508	57.842	.613	.307
Health managers	Expanded silo vs. IS	- .007943	.021912 9	-.362	115.41 4	.718	.359
	Meta organization vs. IS	.064571	.025720 3	2.511	30.829	.018	.991
	Individual vs. IS	- .077393	.042259 2	- 1.831	41.192	.074	.037
	Facility vs. IS	- .050637	.029665 8	- 1.707	128.29 1	.090	.045
	Environment vs. IS	- .018286	.034019 7	-.538	31.548	.595	.297
Doctors	Expanded silo vs. IS	- .013594	.028551 2	-.476	125.48 1	.635	.317
	Meta organization vs. IS	.050180	.024850 0	2.019	53.929	.048	.976
	Individual vs. IS	- .000913	.031930 4	-.029	77.207	.977	.489
	Facility vs. IS	-	.030642	-.691	131.24	.491	.245

		.021164	7		4		
Environment	vs.	.056111	.021803	2.573	105.99	.011	.994
IS			7		3		

*A positive contrast means that the IS centrality average is greater than the average of the compared level.

Table 3: Contrast tests: comparison between each levels of reference and the immediate nearby silo (IS) for each professional category

On 15 possible configurations (3 professional categories x 5 levels of reference compared to the IS), the silo logic (IS) prevails in 3 cases only: the centrality of IS is higher than that of the meta organization for health managers and doctors, and IS overrides the environment for doctors. For all other cases, IS does not prevail.

In this regard, doctors and health managers therefore have a different position from that of directors. Thus the professional silo logic takes over the meta organization logic for doctors and health managers while for directors, professional silo never prevails on any other level. For health managers, this is the only configuration in which the professional silo prevails on another level. The individual and the facility level are statistically more central than the professional silo for this category of managers, even if this is true to a lesser extent (bilateral test is less than 0.1). For doctors, however, besides the meta organization, the professional silo logic also outweighs the environment level. On the contrary, the centrality of the meta organization is significantly higher than the immediate nearby silo for directors.

Beyond the centrality of levels of reference, ultimately raises the question of perceived effects of these levels by managers. A final analysis was to determine for each level, whether it was considered rather as a cause or rather as an effect. To do this, for each level of references the difference between the number of incoming links² and the number of outgoing links³ has been calculated. The result was then converted to a score on a scale of 0 to 100 by linear interpolation. The higher the score is to 100, higher is causality, and vice versa. A neutral point was determined, corresponding to an equal number of incoming and outgoing links. It is important first to clarify that no "extreme" result rises from this analysis. Generally,

² Incoming links of concept A correspond to the influence of other concepts on concept A. A is a consequence, an effect.

³ Outgoing links of concept B correspond to the influence of B on other concepts. B is a cause.

the visions are rather balanced, whatever the occupational category considered. Three results are worth noting. First, the level 'Environment' is at the neutral point, indicating a relatively balanced vision of the environment, the organization can impact, just as it can reciprocally impact. Similarly, it is interesting to note that professional silo is also very close to this neutral point. Finally, we emphasize that the meta organization is very present in the discourse of managers, either for doctors or health managers (number of occurrences five times less than the facility or the immediate nearby silo, for example). But when the meta organization is mentioned, it is made as a level impacting other levels of reference. This perception is particularly prevalent among health managers (nearly 7 points above the neutral point), to a lesser extent among doctors (3 points) and fairly neutral for managers (1 point more).

4. Discussion

This paper aims to study the ability to make collective action (making do together) in healthcare organizations, traditionally represented as fragmented and operating in silos. It is reasonable to assume that organizations dominated by silos logics will have more difficulties to collectively design action plans to meet the challenges imposed by the turbulent environment. In our study, silos were apprehended by studying the structure of managers' discourses, especially managers in charge of the design and deployment of the strategy: directors, doctors and health managers. Specifically, we conducted a systematic analysis of the importance of references to silos, which these managers are supposed to belong to, and the weight they give to these silos in their discourse. The main results of this study do not confirm the enclave representation of health facilities ([Glouberman & Mintzberg, 2001](#)) or fragmented ([Klopper-Kes, Meerdink, van Harten, & Wilderom, 2009](#)); the results point most likely the role of organizational identification ([Sveningsson & Alvesson, 2003](#)) as sedimentation factor of collective action.

First, the initial results of the study did not confirm the existence of silos in the dyadic sense of the word. Overall, for the managers interviewed, references to professional silo (coded immediate nearby silo of 'IS') are less central than references to other levels of reference. The discourses rather show a vision of the organization in which professional silo, whatever the occupational category in question, is not predominant. Doctors do not stand away from the organization or its internal control authority since the logic silo is never dominant in comparison to other internal levels. So they do not see themselves through a self-centered prism and disconnected from the other parts of the organization. The logic silo dominates

only in comparison to the "external" levels in the organization. This result is corroborated by the analysis of causal relationships between the different levels of reference. None of the occupational categories give to their professional silo any ability to influence other levels. So doctors do not consider that their professional category has an ability to control the organization or corollary of this first result, an ability to resist to change, which does not confirm the vision of the fragmented organization proposed by Klopper-Kes, Meerdink, van Harten, & Wilderom (2009). So we can make a first proposal **(P1): the actors of the organization, whatever their professional category, have developed a perception of their place in the organization that is not self-silo-centered.**

A result supports P1 and offers a new reading of health organizations: all professional categories are much more focused in their discourses, on the internal levels of the organization than the external ones. This result is understandable considering the health sector issues. It is exposed to multiple mutations and pressures. Shared logics could be preferred to fragmented ones (the ones presented by [Glouberman & Mintzberg \(2001\)](#)). Internal factors are more central in the reasoning structure of actors, meaning that internal factors play a more important role in explaining situations in comparison to external factors. Finally, from the perspective of managers, problems are not connected or put in relation to the external environment. **Actors tend to describe their context through the prism of what is happening inside the facility rather than that of what is happening on the outside (in the environment or the Group), second proposal (P2) we make.** The facility however is not understood as a constellation of universes or silos, in the words of [Glouberman & Mintzberg \(2001\)](#).

Distinguishing between management areas can help refining P2. It is possible in particular to highlight a cleavage between care / cure on the one hand, and administrative on the other hand, while this is less present in our results. The directors have an opposite view from that of health managers and doctors regarding the centrality of the meta organization when compared to professional silo. While the managers in charge of patient treatment (cure and care) overshadow the meta organization, managers in charge of steering and control (directors) make it to the forefront. Here we find the vertical partitioning (vertical cleavage) between the administrative world and the universe of medical care, identified by [Glouberman & Mintzberg \(2001\)](#). This first analysis is reinforced by the way the meta organization is involved in the chain of reasoning of different managers. For all actors, the meta organization is a cause more than an effect, impacting situations. This perception is especially marked for health managers and doctors, which can be interpreted as a sign of a level (meta organization) that forces the actors in their activity. Doctors and health managers recognize

the same ability to influence the meta organization to which their facility belongs, which is less the case for directors. This result would have been expected yet in a logic of silos. The slightest influence attributed to the meta organization by directors is more surprising considering that some of the surveyed directors belong to the Group headquarters. A possible explanation is the following: these directors do not make any confusion between 'homogenization of practices' and 'strengthening control over the facilities'.

It was not possible however to distinguish the discourse structure of doctors and health managers on the basis of our results. Both professional categories seem to have the same reading of their professional environment and prioritize the same way the different levels of reference. Neither of these two categories of managers will adopt dominant professional silo logic, except when it comes to consider the place of the external environment, as we mentioned earlier. It is therefore difficult to locate the horizontal cleavage, separating the care and cure, mentioned by [Glouberman & Mintzberg \(2001\)](#). This cleavage is based on a differentiated approach to the submission to the formal authority in the institution. Doctors, according to these authors, would position themselves outside of this formal authority, as opposed to health managers, that our results do not confirm. This is consistent with the approach of Hall (2005) indicating that doctors are rather in a competitive and individualistic posture, when nurses (and health managers are all former nurses) were trained to work by team. We suggest elements to explain this difference in results with those of [Glouberman & Mintzberg \(2001\)](#). First, the study of these authors is old and probably reflects the way facilities worked at a stage when they had not fully begun their transformation and integrated managerial logic. The size factor may also interfere on the place and role of different actors. Their results are probably the image of major US or Canadian health institutions at their time. [Glouberman & Mintzberg \(2001\)](#) suggest that doctors consider work in the hospital but not due to the hospital. They are transaction-focused but disconnected from any form of commitment, vis-à-vis their institution. Our results are an image of what is happening in small size facilities. In both facilities we studied, doctors do not simply occupy the territory of operations. They are also stakeholders in the management of the institution, are part of the management committees, quality improvement commissions, etc. They therefore do not work intermittently in the organization. Somehow, institutions with whom we have worked have developed a hybridization of functions making doctors partially responsible of steering the institution. These facilities have redistributed leadership, as shown by Fulop (2012). Furthermore, our results should be linked to the nature of the activity (gerontology and rehabilitation). A and B's activity is downstream of the activity of health facilities. A and B welcome patients that have been treated by health institutions for heavy surgery. Heavy surgery is this type of activity which is at the heart of the activity of doctors mentioned by

Glouberman & Mintzberg (2001). Gerontology and rehabilitation activities put doctors in a longer, continuous action with patients. Their role is to stabilize and rehabilitate the patients. The average stay in A and B is longer than in other health facilities. This difference in activity would explain different positioning of the doctors in our study (more patient-centered and less research activity-centered). Similarly, health managers involved in small size facilities support a more versatile activity including intervening in the selection of patients. These managers are called upon to collaborate with all other groups, including doctors and directors, which can mitigate the logic silo.

These results question the ability to design collective action. None of the professional categories surveyed give to the facility or the immediate nearby silo a predominant centrality. In the end, it seems that the context predisposes to vertical organizational misalignment. This can be problematic because it can mean two things: either the organization is blind and does not take into account what is happening in the environment; or the organization resists to change, members of the organization do not want to deal with the environment or ignore it, as they are oriented internally. Regarding the issue of “making do together”, this can be tricky because there is a relative little attention to the environment, reflecting a non-contingent designing of action. The group is focused on preserving routines of the existing, and reacts only weakly to environment stimuli.

The exploratory positioning of our research finally led us to test the vision of the health organization landlocked and fragmented. This calls for a contingent approach to health institutions. The particular context of the two institutions surveyed uncovers a possible 'size' effect and a 'kind of activity' effect. We can hypothesize that the small size reduces the distance between professional categories by the mean of hybridization of functions. Thus, the links between silos are reinforced and eventually they disappear. In addition, the size also influences the deterministic perception of the environment by members of the organization. The small size of the organization would weaken the ability of it to have an effect on its environment. Finally, the nature of activity of the two institutions placed them at a specific position of the patient health course. This position influences - de facto - the roles of managers within the organization. In particular, it changes the width of view of managers, necessary to accomplish their daily tasks. Finally, we can issue another hypothesis about the impact of the size of the institution on the community of views and guidance of the members of the organization community. This may be favorable to collective action but promotes isolationism. Being small size, impairs the ability of managers to incorporate into their reasoning structure environmental factors.

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