Chapter 7 – Health Organizations and Poly-contexturality

The analysis of health organizations such as hospitals, polyclinics, healthcare services complexes, clinical laboratories, etc. constitute a good test of the consistency of the Social Systems Theory. As organizations operate in several function systems simultaneously, as they have economic, political, educational, scientific, etc. interests, they are of high relevance for the theoretical architecture. Luhmann worked extensively on themes related to organizations. Organizations are one of the three types of social systems (*function systems*, *interactions* and *organizations*) and have differentiated functionality.

Chapter 1 presented the fundamental concepts of organizations as systems based on membership and decisions. For a general distinction, it can be said that while *function systems* work on the principle of inclusion, meaning all society members can in one way or another be included at some point in one or more function systems, organizations work on the principle of exclusion – that is, only members can be part of them, and participate in decision-making, while the rest of the society is excluded.

Decisions, *decision premises*, *uncertainty absorption* (see Chapter 1) are important concepts for understanding Luhmann's views on organization. Organizations have been also discussed in other chapters and sections of the book; this chapter, however, is exclusively dedicated to the "poly-contexturality" theme. This theme allows for a clear understanding of the functioning of complex organizations such as hospitals in the frame of the Social Systems Theory. In fact, Luhmann did not give prominence to the term "poly-contexturality"; it appeared in subsequent works based on the theory. However, it is indeed a useful conceptual tool for understanding health systems organizations.

A provider of health services a hospital is obviously in the health *function system*, but it is also in the economic system (as purchaser and seller of services and goods), in the education system (training doctors, nurses and others), in

the legal system (dealing with court decisions on provision of healthcare services), in the political system (as politicians approve health budgets and investments), in the religious system (as religious rituals may be part of its daily life), in the science system (as a site for research on diagnostics and treatments), etc. The theoretical approach to organizations with such poly-contextures needs to reconcile key notions of Luhmann's theory, particularly the concept of *operational closure*.

The question therefore is how an organization such as a hospital, dealing with several *function systems*, preserves its *operational closure* and the *operational closure* of each *function system* involved. To answer this question, a number of aspects need to be considered.

Function systems differentiation defines socially recognizable distinct meaning domains. In the contemporary context of systems differentiation, any society member can have concurrent "addresses" in any *function system*. An individual can be a lawyer working in the legal system but can also be a teacher in the education system, a patient in the health system, a politician in the political system and so on. Having an address in a function system means having a socially recognizable location in that system, in roles the system recognizes (such as patient, doctor, nurse, etc.); that does not preclude having other addresses in other *function systems*. This configures the poly-contextural nature of contemporary society, with open possibilities for individuals' inclusion in different function systems simultaneously.

At organizations as social systems, the structural differentiation of society projects internal differentiations, with divisions dedicated to specific functions, with differentiated system/environment boundaries. For instance, the finance department of a hospital carries out communications in the economic system (buying and selling) in the environment of the organization. A modern organization therefore has multiple concerns, and this portrays the poly-contexture of health organizations, taking diverse orientations in diverse communication themes.[1]

Healthcare service delivery obviously is the core business of any health organization – its reason to exist as a socially recognized organization belonging to the health system. In organizations belonging to other function systems, the

1 For example, see Anna Henkel "Drugs in Modern Society: Analysing Poly-contextural Things under the Condition of Functional Differentiation", chapter 1 in Knudsen and Vogd (2015).

healthy/sick code cannot be deployed; the health system has the legitimate, exclusive prerogative to use it in diagnostic and treatment contexts.

However, other function systems are relevant for the operations of any organization, and the dealings with diverse function systems have to be done in complexity reducing ways. As treatments for illnesses remain the core business of hospitals, operations related to the other function systems must not overtax the central function of the health organization or distort its main purpose of identifying and treating diseases.

Internal differentiation is therefore needed, and achieved by developing internal distinct sub-units to deal with the specific observations required for communications with the other systems, without letting the whole of the organization be affected by their respective specific complexities. A legal department may be created to deal with legal issues; an education division to deal with the students and trainees circulating in the hospital; a finance directorate should deal with the respective payment routines, and so on. Despite critical instances where, for instance, the economic system seems to dictate what the medical teams could or could not do, the interplay of communications find the necessary solutions and functional separations; social differentiations must be maintained in accordance with the identity of the organization.

According to the theory, the differentiated sub-units in an organization can communicate with each other as they belong to the same organization. Many organizational decisions equally affect all its sub-units and are matters of concern for all of them. However, the separation of semantic areas should be maintained; accountants do not discuss and make decisions about treatments with doctors, or vice versa. However, this does not preclude a sub-unit to communicate with an equivalent sub-unit in another organization, as long as they both belong to the same *function system*. This means that finance officers, for instance, can communicate with finance officers belonging to other organizations as they are communicating within the economic system using the respective codes. The same is valid for all other function systems (education, political, scientific, religious, etc.). By this expedient architecture, organizations can overcome the limits of their operational closure and communicate with other organizations.[2]

2 Comprehensive treatment of these topics can be found in T. Drepper, "Organization and Society", and D. Baecker, "The Design of Organization in Society", respectively chapters 8 and 9 of the book edited by Seidl and Becker (2006)

This chapter refers to studies from Scandinavian countries where the issue of poly-contexturality has been given attention. Key for the understanding of a poly-contextural architecture is to recognize the interplay of observations, with observers in the different domains observing each other. References for this discussion can be found in the book edited by Knudsen and Vogd (2015).

Every contexture observes its specific issues within its limited field. What is excluded from a field of observation of a contexture, if nevertheless relevant for the organization, becomes part and is observed by another one adequately equipped for carrying out the required observations. The legal department does not look into the procurement of disposable materials for the wards; nor does the nursing department get into communications about the legality of cases caught in legal quagmires. The separation of fields of observations and communication must be maintained and guaranteed inside the organization.

Yet there should not be hierarchical differences, because what each contexture executes cannot be executed by any of the others. Multiple contextures therefore coexist without distorting the fundamental autopoiesis of the organization as a healthcare organization.

For that, regulation of contextures has to be in place, ensuring that issues are addressed by the appropriate contexturality, reducing the overall internal complexity. Indeterminacy is only tolerated temporarily; decisions need to take place and the appropriate contexture identified for taking care of the issue. *Decisions premises* give predictability to these processes and stabilize expectations, reducing complexities (see Chapter 1).

There is room for the respective decisions to be taken separately by the concerned contexture. Those on the medical side who establish the diagnostics and treatments, and perform the respective operations, do not make the decisions to carry out or not specific procedures dependent on whether the patient is or isn't covered by insurance. Medical staff of the hospital communicate the treatment needs, which might require administrative authorization to go ahead. The administrative sections will ensure that the patient or the insurer will pay for the procedure (in a public sector hospital this process is often not needed). Therefore, the decision whether or not to perform the procedure is taken at different moments for different reasons by those in different positions in the organization. But the definition of the treatment the patient needs is exclusively within the realm of health communications.

When the insurer authorizes the procedure based on the doctors' recommendation, the insurer is not acting as part of the health *function system* but rather as a payer operating in the economic system, paying for the service.

Therefore, decisions concerning the use of the health/sick code (diagnosis, prescription and treatment) are taken exclusively by those operating within the frame of the health *function system* inside the health organization (hospital). Only doctors establish the treatment but the procedures may be performed after being approved by other systems (insurers from the economic system, as exemplified above).

An illustrative example of the separation of contextures is the Diagnostic-Related Group (DRG) and their pricing mechanisms. DRGs are used in relationships between healthcare providers and healthcare services payers, and are based on the separation of the two fields: On one side, medical discretion and decision-making; on the other, economic transactions involving payments. This maintains and reproduces the differentiation between the two function systems.

Poly-contexturality is widespread, reflecting the fact that systems are present in each other's environment and produce effects that are often relevant for each system individually. Hospitals have always been sites of multiple interests and multiple communications. The coupling with other function systems has, from the beginning, to be part of any endeavour to build, equip and open hospitals. Human resources have to be hired and many types of services have to be bought. Finances of some sort have to flow in to keep the organization running. Certain interactions with legal and political systems have to be constructed to allow the hospital to function in specific locations, to conform to expectations and requirements those systems may have.

So, that is not new, and existed well before commercial interests became a relevant feature of health systems. What is important to keep in mind, though, is the architecture by which poly-contexturality happens; each function system has to have its specific operations, which can only be done in their respective semantic meaningful domain, and performed within their specific organizational space.

Within the complexities of poly-contexturality, the organization's main social identity has to be and indeed is preserved. If a hospital becomes a school, a factory, a commercial enterprise, etc., losing its distinctiveness as a healthcare institution, it can no longer claim to be part of the health system. It no longer has the possibility of producing communications recognizable as legitimate deployment of the healthy/sick codes and related programmes. The health system's organizations would cease recognizing any health organization that steps over the line, and would no longer accept it as addressee for health communications.

Because of that, a hospital cannot neglect its main character, and must preserve the capacity to be observed by the health system as being part of it. That is expressed strongly in the communications of medical professionals in defence of their prerogative of being the only ones authorized to make legitimate use of the health codes and programmes (deciding and doing what a patient needs). There are strong barriers against commercial interference in medical decisions and attempts to make hospitals businesses just like any other, i.e. an enterprise for revenue and profit-making.

However, as mentioned above, it is still possible to have operational poly-contextures, as long as they do not disrupt the autopoiesis and identities that must be preserved. To manage that, the organization admits a certain differentiation of decision-making prerogatives, which are consistent with the preservation of communications and channels essential for the stability of expectations.

The coupled systems in a poly-contextural context may observe that they are dependent on each other, but at the same time also observe that their observations carry different concerns and considerations. A decision that is medically correct can be problematic from a financial or legal point of view. Similarly, a legally and financially correct decision may not be compatible with the rules of the medical profession.

Poly-contexture implicates a potential for conflicts and tensions. However the difficulties, the combination of different contextures is also needed as a solution to deal with the complexities of the environment and to prevent these complexities from overwhelming the organization itself. By being poly-contextural a hospital simultaneously reduces the complexities of its environment (selecting appropriately what it needs to deal with) and reduces its internal complexities (by selecting which internally constructed contexture will handle the pertinent issues).

A last and also advanced point of the theory on organizations and function systems differentiation deals with the fact that organizations and function systems are closely interlinked and dependent on each other. Luhmann (2007, p. 668) says; "organizations are the only social systems that can communicate with their environment", i.e. communicate with other organizations in the environment. By being able to communicate with other organizations, while preserving their individual operational closure, organizations also preserve the differentiation of the function systems, which cannot communicate with other function systems. As the codes and semantics of health are only understandable and meaningful within the context of the health function system,

this system also cannot meaningfully deploy the codes belonging to other function systems. Function systems cannot organize themselves – i.e. take the form of organizations; therefore, they need organizations.

To grasp this corollary of the theory it is necessary to keep in mind that function systems are semantic universes, which only understand their specific codes; the legal system, for example, cannot communicate in the same way as communications take place inside a health system, or vice versa. Poly-contextural organization therefore reinforces social differentiation, making it possible for the organizations to perform communicative operations in different function systems. It can be said that organizations solve the problem of isolation of the function systems at the same time as preserving them, making simultaneously possible both the autopoiesis of the function systems and of the organizations as poly-contextural sites.

In short, this chapter intended to provide researchers of health organizations the conceptual tools by which they can address the complex relationships between different organizations and the internal expressions of different function systems.

Key texts (included in the references at the end of the book) in Social System Theory and organizations are: N. Thygesen (2012), *The Illusion of Management Control: A Systems Theoretical Approach to Managerial Technologies*; David Seidl and Kai Helge Becker (2006), *Niklas Luhmann and Organization Studies*; Luhmann (2018), *Organization and Decision;* Vogd and Knudsen (2015), *Systems Theory and the Sociology of Health and Illness*; M. Knudsen (2012), "Structural Coupling between Organizations and Function Systems: Looking at Standards in Health Care" (in T*he Illusion of Management Control: A Systems Theoretical Approach to Managerial Technologies*, ed. by N. Thygesen); David Seidl and Hannah Mormann (2014), "Niklas Luhmann as Organization Theorist" (chapter 7 in *Oxford Handbook of Sociology, Social Theory and Organization Studies: Contemporary Currents*); Tore Bakken and Tor Hermes, eds. (2002), *Autopoietic Organization Theory*.