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The Model of Logical Paradox: Addressing design and double-bind communication in public services

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This article introduces an understanding of double-bind communication based on cybernetic theory. It describes how a synthesised model of logical paradoxes can serve as a means for the system analysis of the double-bind communication inherent in the relationship between clients and service providers in public services. The study is positioned in the context of the Norwegian Labour and Welfare Administration (NAV). A double bind can be described as communication that is paradoxical in contexts where, for example, the client (in this study, the citizen seeking help in difficult life situations) encounters the dimensions of being disciplined and helped as two facets of a conversation with the service provider (in this study, a public servant representing a welfare provider).

We have explored communication sequences in citizen–public servant conversations in relation to cybernetic theory and the work of G. Bateson (1972) to illustrate the research on double-bind communication. The communication examined in this ongoing study is limited to a few standardised letters created by NAV and sent to clients when support for sick leave is about to cease. Thus, the study is concerned with how to recognise and understand double-bind communication in welfare services and service design in general and, as an extension, with how this understanding can inform the process of designing a mutually trustworthy communication and the relationship between the citizen

and welfare provider. It is suggested that the model of logical paradoxes synthesised in this research can be introduced to design students. This will enable a wider understanding of double-bind functioning and, thereby, create a method to design for situations where double-bind communication is detected or unavoidable.

KEYWORDS: systemic design, cybernetic theory, double bind, design method, public services, sustainable welfare system

RSD Topics: Learning & education, methods & methodology, policy & governance

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System analysis of double-bind communication in the context of welfare systems

Designers from various backgrounds, such as product design, user experience design, service design, design research, and systemic design, operate in complex contexts in their practice. A typical example of such a complex situation is the creation of fruitful communication sequences involving the Norwegian Labour and Welfare administration (NAV), represented by a public servant and the citizen, as a part of the total welfare service system. In the current system, there exist communication sequences in which the public servant must discipline and support the citizen in the same conversation. For instance, this may happen in situations where the public servant is instructed to motivate the citizen to take part in an activity such as a course on how to apply for a job, how to write a resume, a motivational course, or an education program—and must, at the same time, discipline the citizen if they do not attend the assigned activity. The organisation is set up to support all citizens and enable them to live independent lives. The system that is built to effectuate this support consists of offerings such as free education, monetary benefits, and help with acquiring living accommodations. However, to receive such support, the citizen—who may be in a burdensome situation due to a sudden change in their life caused by major occurrences such as illness, depression, or loss of job—must comply and act in accordance with the demands listed as the prerequisites to receive guaranteed support from NAV.

Another example that illustrates double-bind communication is the standardised correspondence that NAV undertakes with a citizen on sick leave who is unable to recover and, therefore, work within twelve months. In this situation, the citizen will receive a letter after ten months informing them about an imminent decrease in their monetary support unless they return to work. In the same letter, NAV informs them about various aspects that may help them return to work, such as how to apply for jobs and make a resume. For some citizens, their health condition may have worsened after ten months of being on sick leave. Such individuals are approached by NAV as if they are recovering and are further given advice on how to return to work, which represents a paradox or double-bind communication that is difficult for the citizen to understand and implement.

This type of double-bind communication, disclosed through NAV's correspondence with the citizens, occurs because of the entity's internal organisation and distribution of tasks and operations. Double-bind communication also occurs as a consequence of the enforcement of national laws and regulations as criteria for receiving welfare support.

The principle that has emerged from this organisational structure can be explained as "Aid is given if the citizen performs," which represents a paradox, as the citizen had approached NAV in the first place because they could not perform. Paradoxes such as the one described above referred to as double binds in systems theory (M. Bateson, 2005), are not unusual in the public sector and public services. Interestingly, most designers that work to handle such complex situations lack knowledge about double-bind-communication situations and, thus, do not possess the ability to deal with them.

Double bind

The term "double bind" was coined by Gregory Bateson (1972) and is briefly described by his daughter Mary Catherine Bateson (2005) as "a communication function that conveys contradicting messages at different logical levels." She further elaborates on the double-bind concept, describing it as "an abstract pattern of relationships that might show up in particular exchanges, but these always depended on the broader context,"

and refers to her father's example of such a situation, which he described on the basis of the following:

> "A young man had been in hospital and had somewhat recovered from an acute schizophrenic episode when he was visited by his mother. Gregory's account of the event: "He was glad to see her and impulsively put his arm around her shoulders, whereupon she stiffened. He withdrew his arm and she asked, 'Don't you love me anymore? He then blushed, and she said, 'Dear, you must not be so easily embarrassed and afraid of your feelings." (Bateson, 2000/1972, p. 210)

In this sequence, the young man seeks to communicate his affection for his mother, which is rejected; his subsequent need for a confirmation of his mother's love for him is punished and serves as a supplementary rejection. The failure of his mother to communicate her love for him is laid on him. In this regard, M. Bateson (2005) stated the following:

> The double bind is created in interaction between two or more parties or entities (I am deliberately avoiding saying "persons" here, which is the usual phrasing—really, we are dealing with parts of some larger whole) in a significant non-transient relationship that continues over an extended period, with the same pattern repeated again and again. In this pattern, there is a contradiction between messages at different logical levels: a primary injunction and a second injunction at another level affecting the interpretation of the first. There is some real emotional danger or threat in this situation, no possibility of withdrawing from it, and no possibility of naming the problem. (Bateson, M. C. 2005, p. 13)

A double bind is not a countable measure; however, it describes a phenomenon that is destructive to communication and functioning. Hence, a service that represents double-bind functioning may be destructive and work against the goal of the service (for example, see Forrester, 1971) and, by extension, the intended policy. It may not be possible to prevent a double bind, but we can be aware of the phenomenon when designing welfare services.

Double-bind situations in welfare services

Citizens and public servants behave and adjust in accordance with the systems that enable the encounters between them. Both the entities involved in the communication know that they must behave in a specific way to achieve the desired outcomes. Citizens adjust to monetary and social support systems that shape their behaviour. The public servant, being on the other side, behaves in line with the power structures, hierarchy, administrative system, execution of laws and regulations, and so forth. The intention behind a welfare system is to arrange for citizens to receive various types of benefits or support during a troublesome period. However, the communication protocols may work in both the citizens' and the welfare systems' disfavour because the relationship represents different perspectives and goals. Accordingly, the nature of the relationships may hinder the welfare provider and the program's purpose when the communication hinders or demotivates the initiative of the citizen who needs support. Double binds or double communication occurs in various systems, as, for instance, pointed out by M. Bateson (2005):

> Living in an individualistic Western society, we are double bound by being told we are free and by being subject to a large number of social controls that make us unfree; we are unwilling to analyse the contradiction between our purposes and our survival (as individuals or as a species) or the contradiction between being organisms that necessarily must die and being convinced of the need to stay alive.

Therefore, the understanding of being free for a child within a family structure may represent such double-bind messages: they are free but also controlled by the very same parents that say they are free. In educational systems, pupils and students are encouraged and evaluated by the same system and, in design education in particular, by educators who typically place demands on students through messages such as "You must be free; you must make your own choices." Further, as M. Bateson (2005) points out, "There is a contradiction: If you must be free, then you are not free." Based on the latter example of a paradox in logic, we developed a model that describes double-bind communication between citizens and welfare providers in order to develop a design

method that stimulates awareness and understanding of different levels of complexity for the designer.

The intention behind providing the examples in the boxes, which illustrate the contradictions found in the messages that are typical of the NAV and welfare systems context, is to exemplify and contextualise double-bind communication for design students that want to learn about public services and for designers working in organisations such as NAV. To prepare design students to work within the complex situations described above, systemic design education has emerged.

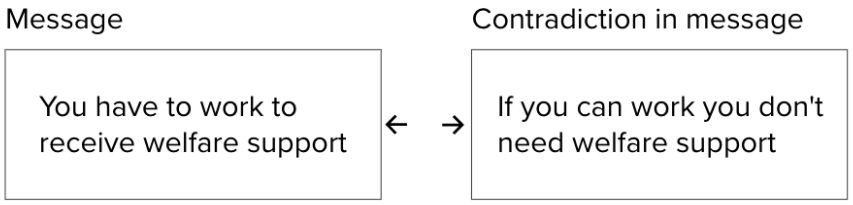

Figure 1. Example of double-bind communication in the context of welfare service systems.

Understanding communication systems in systemic design

Systemic design is the combination of design practice and systems theory. Systems represent exceedingly complex networks of relations within ecosystems, environments, society, organisations, services, and social systems, including circumstances, and cannot be approached using standard design or engineering methods (Ashby, 1963). The systemic design methods that enable designers to explore systems, environments, society, organisations, and public services are, therefore, linked to complexity and systems theory. Hence, systemic design serves as a methodology for design in such complex settings. The method of gigamapping has emerged through systemic design practice and research. Gigamapping is a method that designers use in cooperation with stakeholders, clients, and users through visualisation to create an overview of situations

that form the origin of future designs. Thus, gigamaps often serve as a platform for visualising all systems within the imagined scope of a project. The visualisation of the main systems, connected systems, their functioning, relations, and the structure that the systems depend on and represent form the complete picture of the complexity of the situation at hand. Hence, the Giga map functions as a holistic approach through the visualising of the whole report, which, in turn, invites all partakers and stakeholders to see all the pages of the report simultaneously and, thus, work, synthesise, connect, react, add, etc. to enhance the content of the work. However, visualising all the empirical data through one or more Giga maps does not ensure quality. The designer must have methods to analyse the complexity of the data to reach new solutions through design. Knowledge regarding systems theory serves as the origin for such analysis in systemic design that can inform the design team about

- the existing systems at hand, the structure that they depend on to exist
- the organisation of these self-producing qualities
- systems functioning and the related networks of interconnections
- reinforcing and balancing feedback loops
- strong or weak connections

In systemic design, hindrances or so-called problems, which are caused, for instance, by program errors or a user experience design that stimulates misunderstanding, receive little attention because they solely represent structural dimensions and, thereby, limited potential for systemic change. The emphasis in systemic design lies within system functioning, system malfunctioning, connected systems, or missing connected systems. Consider the following example:

> Missing feedback is one of the most common causes of system malfunction. Adding or restoring information can be a powerful intervention, usually much easier and cheaper than rebuilding physical infrastructure. … That's a perverse feedback, a positive loop that leads to collapse. (Meadows, 1999)

Accordingly, we have conducted our research to produce insights regarding communication and double-bind communication in complex systems, in particular, to facilitate a discussion about how these dimensions can lead to the emergence of a

discursive design method that stimulates design students and designers to seek understanding rather than imitates problem-solving, and further a discussion about the facets of double binds in service design.

Designing communication systems with awareness of double-bind functioning

G. Bateson (1972) stated that "it is rather generally believed that 'causes' or 'reasons' for alcoholism are to be looked for in the sober life of the alcoholic." By this, he suggested that we all seem to research what others do and remain within the same logic. This way of thinking, which involves exploring the other end of a situation, is what is referred to as "negative explanation" or cybernetic analysis (G. Bateson, 1972). We used negative explanations to develop a method that stimulates designers to research another logic and facilitates discussions about logic in systems. By combining the negative explanation of being or feeling free, which originates from G. Bateson's example of a double bind and freedom, and double-bind communication, we synthesised a method for design discussions and exploration. The notion of freedom can be analysed within the range of "free" to "not free" (G. Bateson, 1972). That is, we suggest that designers seek to understand the concept of being free by examining what it means not to be free. The different levels of communication that are represented in a public organisation or company may reflect the different logics between the two sides.

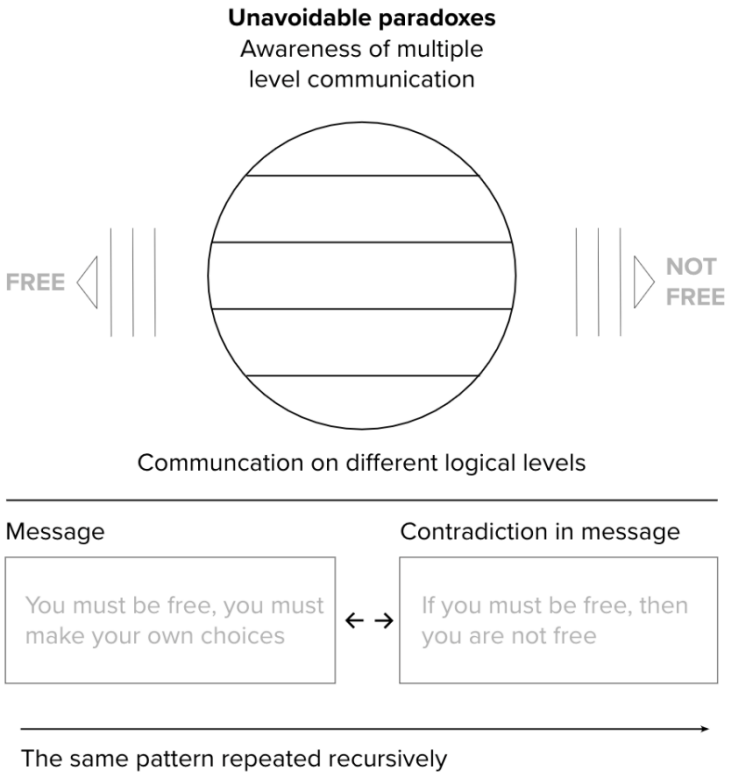

Figure 2. The Model of Logic Paradoxes. The model enables designers to identify similar logical paradoxes within the contexts in which they practise as well as formulate the specifics of such contradictions in the messages in their project.

User orientation and systemic insight

Services designers working with user-oriented processes typically emphasise user satisfaction to provide good user experiences between the service user and service provider and enhance the value exchanged between them. However, the immediate gratification provided by such experiences does not necessarily equate to quality in a service's functioning over time. Hence, service design could benefit from processes that stimulate designers to think about the experience of the citizen as a whole, for instance, by exploring their experience in relation to time. As an example, a tobacco-free city perhaps does not offer citizens immediate gratification when welfare is considered in the long run or as a part of a whole. Hence, service design methodology neglects a

holistic perspective due to the user orientation emphasising the immediate experiences as the central measure of the services. In other words, the methods fail to consider the forms of communication systems, overlapping dependent systems, and, thus, the need for system insights and knowledge regarding the system characteristics, functioning, and malfunctioning.

About the method, the logical paradoxes

The research describes various situations and types of functioning of double binds within NAV, involving different phenomena and tensions, and in encounters between citizens and a welfare system and discusses the functioning of double binds between systems in general. We have witnessed the need for a flexible and in-depth understanding of the systems dynamics concept, combined with the need to consider concepts from cybernetics, to facilitate open-minded thinking processes for design students. As designers continue to become increasingly involved in designing services for the public sector—a field of complexity, uncertainty, and unknown variables—they are expected to handle the concomitant uncertainty. Through this article, we seek to explore pedagogical methods to understand the systemic character of systems, which often have invisible elements but are extremely concrete in the way that those elements, e.g. a communication system, define the functioning of the system.

What did we do?

We used the literature on cybernetics and system dynamics, the concept of double binds, and the 12 leverage points proposed by Meadows (1999) to create the model of logical paradoxes. The negative explanation that describes a phenomenon and the other extreme of said phenomenon (free–not free) represents the level of contradiction in a message/communication. To discuss the different levels of logic involved in creating paradoxical messages, we used the perspectives of G. Bateson (1972) on communication as circuits of praxis (detailed descriptions of behaviour) by visualising the praxis of the citizens who are forced to document their recurring misery over time in conversations with NAV supervisors (which may create a thinking pattern in the citizen that can result in lost self-confidence, which is the opposite of the goal of the welfare system). We called these elements *the message* and *the contradiction in message,*

in The Model of Logical Paradoxes (Fig. 2). The focus of the research was to include elements from the context of these messages to be able to understand the system in a holistic manner and identify the types of dependencies that lie within the system characteristics that allow for these double-bind messages to endure. Systemic design requires an understanding of the relationships between the elements of a system. Our model encourages visualising patterns of thought and communication to learn how a citizen interprets a message and how a welfare system communicates a message. "Double bind is not something that happens to a mind but something that happens in a mind" (M. Bateson, 2005).

Implications for design

The model of logical paradoxes is a tool for design as an inquiry toward understanding rather than for problem-solving. It is a tool for investigating patterns in communication and encounters between citizens and public services to identify occurrences of double-bind communication on different logic levels. Therefore, it is a discursive tool for design thinking, for learning about the logical paradoxes that are inherent in our world and the services developed in a complex field, and for experimenting through the design process using different models that involve different stakeholders' perspectives and objectives. The model facilitates the exploration of the relationship between people and services through a lens of communication on different logic levels to spark reflection about communication systems, immediate abstract systems, physical structures, forced communication, absent communication, and so forth. The model of logical paradoxes may serve to induce discussions regarding how we can design public services that create a trustworthy relationship between citizens and the public sector while containing a minimum amount of double-bind communication.

Discussion and reflection

This research investigates how we can provide citizens with financial security as a part of a service and simultaneously allow the public servant to be a "good helper" who "pushes" when needed, which differs from the current situation where the public supervisor is forced to "discipline" the citizen because of a rigid system. This represents a classic double-bind situation that is a problem for the citizen, the public servant, and

the welfare service system. NAV is concerned with resolving this in a better way; however, this seems to be impossible without being able to disclose double-bind functioning.

A systemic design approach seeks to understand organisations and services in a holistic manner and reveal their systemic character and functioning. The outset is to understand the encounters, interactions, and communication between citizens and public servants, which are often described as dysfunctional conversations and exchanges of information. The double-bind communication that occurs during these encounters can lead to the cementation of a citizen's troublesome situation due to the control function that the public servant must execute and force the citizen to document their illness or problematic life events in exchange for welfare support. However, the double-bind functioning of these services, if not detected and designed in a conscious way, may even be destructive for the person seeking help. Therefore, we suggest that the model of logical paradoxes is utilised in design education to help teach future designers how to handle such complex issues.

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