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Hindering Contradictions in Healthcare - An activity-theoretical analysis of a design-led investigation in primary care

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Abstract

The Swedish healthcare system has been reformed in a significant way during the last decades resulting in several challenges. One of those challenges, addressed in this paper, concerns the relation between decreased resources and patient-centred care. Thus, this paper poses the question of why healthcare faces difficulties in transforming itself to become more patient-centred.

To investigate the question, a case study previously unprecedented in Sweden was conducted at a primary care unit: The first author was employed by the county council as in-house service-designer in a nationally funded[1] project with a placement at one specific primary care unit over 15 months. The project was initiated in 2014 and investigated the use of design methodology to explore the needs for future improvement in primary care.

Collected data has been analyzed through Activity Theory, resulting in the identification of two major contradictions that emerge between the overarching activity of the organization and two inherent systems: the patient/citizen's activity system of getting help to gain better health and the doctor's activity system of providing care.

Keywords: Healthcare, activity theory, design methodology, patient-centred, service design

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Introduction

In the last decades, the Swedish healthcare system has been reformed with the objective of strengthening the role of primary care in general and to improve access for and responsiveness to patients (Anell, 2015). In January 2015 a new law was introduced in Sweden strengthening the patient to become more participatory and get better access to healthcare (Swedish Parliament, 2014).

However, resource constraints have provided challenges for the healthcare system for a long time (Bergman, 1998). Today, one of the specific challenges healthcare staff face is that their time is not sufficient to take care of all the citizens asking to be helped, resulting in more acute care rather than primary care, as Wolstenholme *et al* (2014) mention. Anell (2015) describes waiting times for consultations and treatment as persistent problems in Swedish healthcare and that services are not always distributed fairly.

Nevertheless, while many challenges of the current Swedish healthcare system have been identified, there are few studies discussing in detail the dependence of how limited resources affect a patient's consultation and treatment. Thus, in this paper we report on a case study that was conducted at a primary care unit in Sweden, asking *why healthcare faces difficulties in transforming itself to become more patient-centred*.

Through the employment of Activity Theory as method of analysis, two major contradictions in the healthcare system were identified that deepen our understanding of the dilemmas faced by primary care staff due to limited resources.

Methodology

The case study was conducted at a primary care unit in the County of Värmland in Sweden. It is a publicly funded caregiver consisting of eight doctors, eight nurses, four assistant nurses and four administrators (for more information on the Swedish healthcare system in general see Anell, 2015).

The first author was employed as a service designer for 15 months on half time to conduct research and change-work at the above mentioned primary care unit. She was set no other specific task than to use design methodology in the process. The work has been based on service design methodology (Stickdorn & Schneider 2010) as well as ethnographic methods and has predominantly consisted of participant observations, participant interviews and co-design workshops. Approximately 200 hours of observations and over 40,000 words of field notes form the base of the empiricism in this study. The material has been analysed using open coding (Strauss & Corbin, 1998) and Activity Theory (Engeström, 1987).

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Analytical framework for analysis

Activity Theory which was used for the analysis of the collected data is a descriptive tool as well as a theoretical framework that aims to understand human beings through an analysis of the genesis, structure, and processes of their activities (Kaptelinin & Nardi, 2006). The framework uses the concept of activity, which is understood as the subject's purposeful interaction with the world, as the fundamental unit of analysis, and offers a set of concepts that can be used in order to conceptualize a model of activity systems. Activity Theory has its origins in Vygotsky's (1978) concept of tool mediation and Leontiev's (1978) elaborated notion of activity. Vygotsky (1978) proposed the idea that human beings seldom interact with the environment directly without using cultural artefacts such as technical and semiotic tools as mediators of external activities.

Vygotsky's ideas about cultural tools as mediators of activities, and in particular the concept of activity itself, were further developed by Leontiev (1978) into the fundamental principles of Activity Theory (Kaptelinin & Nardi, 2006). In addition, Leontiev introduced the concept of the object of the activity. The proposed claims were that all human activities are directed towards objects that motivate actions, i.e. activities are understood as mediators of interactions between subjects and objects (Kaptelinin & Nardi, 2006).

Inspired by Vygotsky's and Leontiev's approach, Engeström (1987) proposed an extended activity system model (see figure 1), including the subject-tool-object relation of Vygotsky, but with a description of activity as a collective phenomenon, as opposed to Leontiev, who almost exclusively focused on individual activities (Kaptelinin & Nardi, pp. 99). In order to account for the social structure of activities, Engeström (1987) included three additional components: 1.) Rules that regulate the subject's actions; 2.) the community of people who share a common object; and 3.) the division of labour – how tasks are divided between the community members.

The choice of Engeström's model for the analysis of the primary care activities corresponds to our interest in dialectically understanding the tensions and contradictions that emerge from the relations established between the different components of the expanded triangle (Engeström, 1987).

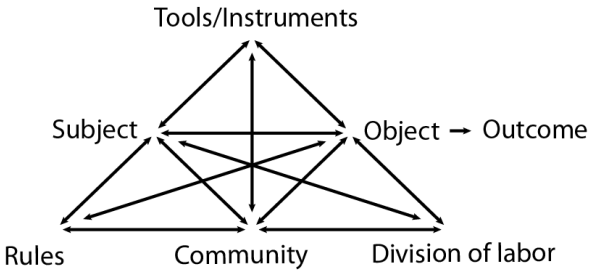

Figure 1: The activity system model (Engeström, 1987)

Results

Based on the observations conducted by the first author at the primary care unit, we wish to share some insights and reflections, and to propose an activity-theoretical analysis of the case study.

Staff shortage in the context of primary care

Healthcare staff today faces a huge challenge: Their time does not suffice to take care of all the citizens asking to be helped. The dichotomy consists of the staff's pragmatic view that they need to take care of the *right* patients and the patients' point of view that they experience a need for care, whether this need is real or just perceived to be real.

Is the patient ill enough to be helped?

There is a difference in staff making a distinction between what *they* assess as "having a need for care" and what the patient perceives. The first author has observed this multiple times, especially in the context of acute appointments (when a patient gets to see a doctor the same day). In notes collected by the researcher during a staff-internal meeting, doctors multiple times have commented on the nurses' assessment of patients on the phone.

> From the researchers notes: [Doctor] says that too many non-acute patients are booked to meet the doctor on acute-time-slots. [The same doctor] asks nurses to forward dialogues with assertive patients to speak to a doctor directly over the phone so that the doctor can assess whether the patient is in sufficient need of care [to be granted an acute doctor's visit that same day, or if the patient should be rejected].

Shortage of staff versus the need to see a doctor or a nurse

According to the head of division for primary care in the County Council of Värmland, there is a constant 25-30% lack of primary care physicians. This shortage is underpinned by the researcher's observations at the primary care unit. The time to be able to get an elective, non-acute appointment with a doctor has over the researcher's year of observations varied between 4 and 8 weeks. Staff have used terms such as to "fend off patients when calling" as mentioned by a doctor a few days before summer vacation, to be able to take care of other patients.

Internally the care unit has, of course, limitations as to how many patients can be seen in a week. The number of incoming patients is today restricted through prioritizing *all* patients. Access is granted for those assessed to have sufficient need for care.

Practically this work is mainly done in the nurses' telephone counselling. They spend approximately one third of their total work-time talking to patients over the phone. It is, as the name indicates, meant to give advice to patients, but does primarily function as a filter to keep less

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ill patients away and secondarily as a booking-service for those assessed to be in need of help. Apart from a very limited internet-based service to get in touch with the primary care unit, the phone counselling is the only "way-in" for the patient. No appointments are booked at reception.

For nurses, not being able to book patients that call the primary care unit asking to get help renders great frustration. A nurse mentions this to the researcher who notes:

> [Nurse] is very frustrated: "They [the patients calling] expect to book an appointment with a doctor, but we [the nurses] are not allowed to do so." [Nurse] is apparently frustrated, swears, excuses the swearing [to the researcher] and mentions that she has spoken to other primary care nurses about this.

The patient's perspective

From the patient's perspective the shortage of staff gives at hand that you are not helped if *you think you need* help, but if *the care staff has assessed* that you need help. This renders great frustration with patients, since they often refer to *booking* an appointment rather than *asking if they are assessed as being in need* of an appointment.

> Quotes by patients: "I find it strange that I get to talk to a nurse for a long time, when all I want is an appointment with a doctor!" [...] "To be able to come to the reception to book an appointment [to see a doctor]. How hard can it be?"

The perception of what the problem is about "being able to book an appointment" differs largely between patients and healthcare staff. Healthcare staff have a need to assess the patient's need for help while the patient's perspective of the situation often is that they know that they need help, whether this is correct according to the healthcare staffs assessment or not.

Activity theory applied to the case study

The activity-theoretical analysis in this case study has focused on two interlinked activities that are embedded in a third, overarching activity system, namely the healthcare organization's. The two embedded activities are the individual doctor's with the object of activity to provide relevant care for the individual patient he or she is seeing[2]. The other embedded activity is the one of the patient or citizen who has the object of activity to get help to gain better health.

These two activities, which are on an individual level, are embedded in the overarching activity system of the healthcare organisation, whose object of activity can be described as equitable and

[2] For reasons of space limitations in this paper we limit our analysis of the healthcare staff's perspective to the doctor's activity.

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good care for all citizens. This renders the patient/citizen as a crucial part of the *object* in the organizations activity. Healthcare staff on the other hand constitute an *instrument* for the organization to reach its object (see figure 2).

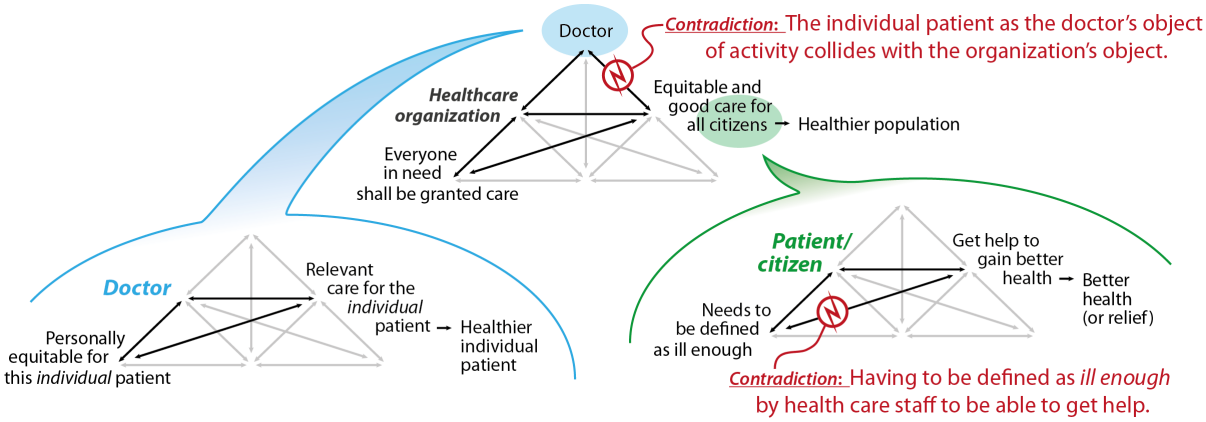

Figure 2: The healthcare organization's activity system with two of its inherent activity systems: the doctor's and the patient/citizen's. (Based on Engeström, 1987).

Where are contradictions within the individual's activity systems? How do the parts of the overarching activity system collide? And how do the inherent activity systems interact or interfere with each other? Where are contradictions?

The objective of a healthcare organization such as a primary care unit is to provide healthcare to citizens according to certain criteria on quality, costs, etc. However these objectives on an organizational level collide with the object of the individual caregiver's activity system. The organization's object of activity consists of equitable and good care for *all* citizens (that are in need of it). To achieve this objective the main instrument for the organization is the care staff, or as discussed as an example in this case, the doctor.

The organization's contradiction

The doctor's activity system is a part of the organization's. To be concise, the doctor is an *instrument* for the organization in order for the organization to be able to achieve a desired outcome of a healthier population. The doctor's object of activity can be described as relevant care for the *individual* patient and does not theoretically collide with the organization's. However, in the context of reality consisting of limited resources such as shortage of staff, this renders a conflict between the organization's object of activity to provide equitable and good care to all citizens in need of it, and the doctor's accountability for individual patients.

> From the researchers notes: "If you as a patient come to me [a doctor], and this meeting needs to last one hour, then it must be one hour. My responsibility is this patient here and

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> now. Not everyone out there!" [Doctor] makes a sweeping gesture towards the window with a parking lot, bus stop and a supermarket outside.

This points at a contradiction between the individual doctor's *rule* in the activity system of being personally accountable for every individual patient, versus the organization's *rule* that everyone in need shall be granted care. Hence, the instrument of the organization (the doctor) cannot provide the organizations object of activity: Equitable and good care for all citizens.

The patient's contradiction

The object of the citizen/patient's activity system may be defined as getting help to gain better health. However, illness or a need for care is from the healthcare staff's perspective a relative matter. Is one citizen less ill than another, the less ill might not be treated due to not being defined as *ill enough*. But what happens to the less ill citizen who perceives a real or imaginary need for help from healthcare? Who perceives him- or herself as *a patient*?

> Quote by patient in the waiting room: "I come to the primary care unit because I think I need help. Not because it's fun!"

Internally the care unit needs to distribute staff resources. The *rule* by which the organization distributes these resources is that everyone in need shall be granted care. It therefore resides in the staff's definition to decide who will be defined as being *in need*; thus being defined as *a patient*. From the citizen's perspective the shortage of staff gives at hand that you are not helped if *you* think you need help, but *if the care staff has assessed* that you need help.

Discussion

As the word *primary* care implies, it ought, or is thought to be the *first* encounter with healthcare. But as long as primary care underlies the same set of rules to prioritize who gets access to care as is done in other specialties, this renders frustration for staff as well as citizens and probably increases care costs when patients seek help from e.g. the emergency department at the hospital rather than being treated at the most cost-effective level - primary care.

A patient-centred care model is being widely discussed in healthcare today. However, this paper highlights two major contradictions in this context: Who is eligible to be defined as a patient? Experiencing a need for care does not necessarily suffice for getting access to healthcare since the healthcare organization today owns the right to define who needs to be prioritized; thus who will be defined as a patient. The other contradiction resides in the healthcare staff's personal responsibility for their patients, which controls the staff's acting towards catering individual patients over the organization's responsibility of providing holistic care for a population.

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This might imply that the very core of responsibility in healthcare - the staff's personal responsibility for a patient - might hinder development and innovations in healthcare. It also implies that prioritizing care-seekers in a too strict manner in primary care rather allocates patients towards other, more costly caregivers, than keeping care-costs low.

The value of Activity Theory in healthcare

Through the distinction of an activity's object, the rules that apply, its subject and tools, and the possibility to examine how activities relate to each other, Activity Theory was demonstrated to have high potential for the identification and characterization of contradictions that need to be addressed in healthcare to become more well-functioning and patient-focused.

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