Persistent problems in the Dutch health care system: learning from novel practices for a transition in health care with the UPP framework
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Chapter 2: Persistent problems

Long standing problems in the Dutch health care system are explored in chapter one. Interestingly, the interventions used to attack those problems have oftentimes failed. Based on the work of Grin and others, it appears that underlying systemic components exist beneath the enduring problems both in terms of how they came into being, and the reason why these problems are difficult to solve. The system itself appears to contain features that work against possible solutions; features that somehow impede interventions that aim to solve the long standing problems. In transition management and system innovations literature such problems are labelled persistent problems. From those bodies of literature, however, it is unclear how this persistence works. The aim of this research is to identify the mechanisms and underlying features that produce and reproduce the enduring problems, and develop means to unravel these. In this chapter,²⁵ first, the systemic embedment of enduring problems is investigated. A conceptualisation of persistent problems that explains the persistence of enduring problems is developed by building on earlier work on the nature of persistent problems. This conceptualisation, second, is used to formulate the research question. Third, a further operationalisation is used to develop the methodology of this research, leading to a framework for Unravelling Persistent Problems: the UPP framework.

A persistent problem is conceptualised as a systemically reproduced negative side effect of a success factor of that system — that is, as an enduring problem in coherence with the mechanisms by which this problem is produced and reproduced. These systemic mechanisms of (re)production then exist because actors play out regulations, financial structures, institutional structures, discourses, and other structural elements.

As I will argue, it follows that problematic systemic features may be identified by combining the historically informed with the actor-guided approach, consisting of an iteration between a literature review of debates about enduring problems in the system in focus with the doings and experiences of a novel practice dealing with these problems. This iteration also is a way to deal with the dilemma of structuralism versus being unable to ask the question why new practices structurally fail. In other words, in this chapter I develop a way to analyse persistence of problems, while circumventing the risk of reification. In section 2.3 the research question is formulated. In section 2.4 a method for identifying and unravelling persistent problems is proposed, which doubles as the set of sub questions for this

²⁵ This chapter is an edited and extended version of earlier written work (Schuitmaker, 2010; Schuitmaker, 2012; Schuitmaker & Ter Haar, 2013, forthcoming).
research, and thus a set of steps of the UPP (Unravelling Persistent Problems) framework.

2.1 Persistent problems and transition management and system innovations literature

The conceptualisation of persistent problems as developed in this chapter departs from, and builds on, how persistent problems are perceived in transition management and system innovation literature. A diagnosis of persistent problems is made in these fields of study in order to formulate visions of the future to support possible solutions. Those fields of study, and bodies of literature, have been developed in the context of sustainable development and associated barriers and in context of how transitions in the past came about. Sustainable development as such was first introduced in 1987 in the report ‘Our Common Future’ (WCED, 1987). This report alerted the world to the pressing need for economic development that could be sustained without depleting natural resources or harming the environment. The, by now, widely accepted definition of sustainable development formulated in this report, also known as the Brundtland Report, is: “Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (WCED, 1987: p. 43). The commission identified three components of sustainable development, also known as triple P: the environment (planet), economy (profit), and society (people), which need to be balanced out (WCED, 1987).

Transition management is perceived as a way to work at sustainable development. Central in this interventionist field of study is the idea that sustainable development is a complex enterprise, partly because structures exist that work against the implementation of more sustainable practices, making it even more difficult to solve enduring problems. In, for instance, the domains of agriculture, mobility, and energy, some long standing problems related to sustainability have proven to be particularly difficult to solve through either policy interventions or new small-scale initiatives. Because of the difficulties in solving these problems, they have been labelled ‘persistent problems’ (see e.g.: Dirven et al., 2002; Rotmans, 2005; Grin et al., 2010). Some examples are energy problems with anthropogenic climate change as manifestation; agricultural problems symptomized by animal diseases such as avian influenza or foot-and-mouth disease; water problems illustrated by major floods and periods of drought; and mobility problems with traffic congestion and air pollution due to increased mobility (Rotmans & Loorbach, 2008). One of the main features attributed to persistent problems mentioned in current transitions literature is that they are embedded in the system. As such, these problems are interpreted as system deficits and are thus presented as both the reason and the justification a system innovation or
transition is needed. Such problems, and the system they are embedded in are the result of a process of co-evolution (see e.g.: Grin et al., 2010).

A system innovation then is usually described as a socio-(techno)logical process of change that involves both a change in established patterns of action and in the structures in which they take place (Grin & Weterings, 2005). A transition is understood as a shift from the dominant regime to a new regime. Rotmans and Loorbach (2008) define a regime as a conglomerate of structure (institutional setting), culture (prevailing perspective) and practices (rules, routines and habits). A transition is defined as a fundamental change in structure, culture and practices. According to Loorbach (2007: p. 23), “the call for sustainable development from a transitions perspective is a plea to transform societal systems that struggle with complex and persistent problems structurally. Since regular and traditional solutions result in optimisation of existing structures, fundamental and innovative approaches are needed. A link between transitions and sustainable development therefore speaks for itself.”

Persistent problems are generally seen as problems that are extremely difficult to resolve. The concept as it is used is related to, and an extended version of, the (in)famous ‘wicked problem’ as developed by Rittel and Webber (1973), and the ‘ill-structured problem’ of Hisschemöller and Hoppe (1995). Building on this, Rotmans (2005) and Dirven (2002) define persistent problems as having four features: first, they are complex; have multiple causes and consequences covering several societal domains and they are rooted in societal structures and institutions. Second, they are uncertain; no easy solution exists, reduction of uncertainty by more knowledge is not always possible, and every possible solution changes the perception of the problem. Third, they are difficult to manage; many different actors representing different interests are involved, and they all try to influence each other while being relatively autonomous. Last, persistent problems are difficult to grasp because of unclear structure and boundaries in relation to a strong system dynamic (Dirven et al., 2002; Rotmans, 2005). Furthermore, Loorbach (2007) talks about a specific type of ‘unstructured’ problems; problems for which there is no agreement on values, facts and relevancy of facts. Here he follows Hisschemöller and Hoppe. The persistent element is then that those problems are firmly rooted in our existing institutions and structures. He states that we can define the underlying roots of such problems using a complex systems perspective, and thereby explain the reasons why they are so difficult to deal with. And finally, Bos and Grin (2008), in an analysis of an innovative practice, perceive persistent problems as twofold: as obstacles for sustainability and as problems that will not be solved by the market alone, in which partial solutions will probably have negative side effects if solved in isolation. These effects have also been described in the domain of health care (see e.g.: Grin, 2004b).
In transition management and system innovations literature, however, persistent problems are rather loosely conceptualised, whereas a better demarcated definition can improve understanding of how this persistence works. A better understanding of the mechanisms of this persistency of problems then may help solve them. The definitions above label a socially embedded problem — the discrepancy between a desired and a perceived state, as defined by a particular actor — that appears difficult to solve as ‘persistent’. The label as such, however, does not differentiate between the experienced (systemic) problems, like climate change, loss of biodiversity, or overexploitation of resources (Loorbach & Kemp, 2008); more concrete symptoms of such problems, like traffic accidents, or noise pollution (Avelino, 2006); problems that just appear to be enduring; or, especially, the underlying mechanisms that make these problems persistent. This chapter investigates how and why the alleged persistence works, and building on that shows how a system can actively create barriers for innovations that are not compatible with the existing regime in that system.

This chapter draws on the work of Stones (Stones, 2005) to reconstruct a system through the eyes of an agent. The knowledge gained by this approach can be used for investigating the possibilities for action, and for structural modification allowed by structures external to the agent. This can be done, first, by providing the practice in focus with the analysis: improving the knowledgeability (see Giddens (1984), and section 2.2.1) of the agent will empower the agent to better capitalise on the available resources. Identified obstacles for innovation may then be external, in terms of institutional arrangements, or interfering actions of other actors, but may also be internal, in that the practice in focus itself reproduces impeding structural elements. The introduced conceptualisation and operationalisation of persistent problems can help novel practices look beyond assumptions of normal practice and open up additional degrees of freedom. Second, a system analysis that reveals underlying problems can be used for ‘transitioning’ (Rotmans et al., 2000; Sondeijker et al., 2006) of the practice in focus. Third, policymakers can use the knowledge gained to create room for practices that may contribute to a system innovation, thus finally overcoming long-standing problems.

### 2.2 Persistence of problems; the UPP framework

Persistent problems are associated with problems of sustainability. They can be seen as systemically embedded enduring problems, and thus as systemic flaws. The point of departure in the conceptualisation of persistent problems is that a diagnosis of such flaws may be based on analysing the opportunities and especially the problems encountered in novel or innovative practices that may have the aim to overcome enduring problems. The barriers such practices encounter may serve as indicators for systemic flaws if these
barriers reflect the reproduction of incumbent systemic features. This is built on the idea of systemic reproduction through the actions of agents as described by Giddens and others. The iterative method developed in this chapter consists firstly of a historically informed system analysis; features that can be seen as exactly the strongholds of the current system, but said to have negative side effects, can be identified. In concurrence with that, the systemic reproduction of these negative side effects can be unraveled by analyzing how novel practices shape their agency in relation to their direct environment. This chapter develops and explains the UPP framework: how to Unravel Persistent Problems.

2.2.1 Systemic reproduction

In transition management and systems innovation literature, the label of persistent problem does not demarcate between different (manifestations of) problems, which obscures the nature of these problems. Therefore, a first move in investigating the persistence of problems is to separate enduring problems — which can be seen as concrete, tangible — from the features and mechanisms that lead to their systemic reproduction; that is, from that what makes them persistent. This section explores the nature of those features and mechanisms, building on earlier definitions of persistent problems. Of the four features Rotmans (2005) and Dirven (2002) use to describe persistent problems, the third (persistent problems are difficult to manage; many different actors representing different interests are involved, and they all try to influence each other while being relatively autonomous) points at actor involvement. Where Rittel and Webber (1973) seem to denote such a problem as a more or less independent (although entangled and intertwined) entity, Rotmans and Dirven explicitly position persistent problems in the actions of different actors or stakeholders in several structures, institutions and domains. These notions of systemic embeddedness of problems and actor involvement are also worked out by Grin and Van Staveren (2007: 141-60) with their concept of perverse couplings (perverse koppelingen in Dutch). The essence of this concept is that this coupling does not reside autonomously in some external systemic environment, but is actively effectuated by actors who think and act through institutionally and culturally paved pathways. This seems a fruitful way of looking, but is in fact rather implicitly used by Grin and Van Staveren, and stayed conceptually underdeveloped.

The next move in investigating the persistence of problems is deconstructing actor involvement. The theorem of the duality of structure, as described by Giddens (1984), can be helpful for understanding how and why actors or agents — Giddens uses these terms interchangeably — are (sometimes unwillingly) involved in the (re)production of enduring problems. Giddens tried to transcend the dichotomy between objectivist and subjectivist perspectives, in which the first implies supremacy of objective structural
elements over the agent’s ability to act otherwise, and in which the second puts too much emphasis on a voluntaristic conduct of agents (Stones, 2005). The theorem of the duality of structure states that the constitution of agents and structures are not two independently given sets of phenomena, which is called a dualism, but they represent a duality: “Structure, as recursively organized sets of rules and resources, is out of time and space, save in its instantiations and co-ordination as memory traces, and is marked by an ‘absence of the subject’. The social systems in which structure is recursively implicated, on the contrary, comprise the situated activities of human agents, reproduced across time and space” (Giddens, 1984: 25). The structural properties of social systems thus are both the medium and outcome of the practices they recursively organise. In other words, actors, or agents, act out systemic properties, systemic properties that (have) come into being because of actions of agents. A system, including all its buildings, people, money, etcetera, thus came into being as the result of earlier actions of agents, and simultaneously forms the context for actors to operate, thus heavily influencing the actions of the agents in the system. The essence of this concept is that this coupling does not reside autonomously in some external systemic environment, but is actively brought into effect by actors who think and act through institutionally and culturally paved pathways. Giddens significantly makes a distinction between structures and systems. A system is what you can see and touch, like the health care system and all its actors, buildings, money and written laws. A structure of a system is instantiated only when people make use of this set of rules and resources (Giddens, 1984). A regime, as used in transition management and system innovation literature (see e.g.: Grin et al., 2010), can be understood as a system with an underlying structure.

The conduct of agents here and now is heavily influenced by the underlying structure via the process of reflexive monitoring: this can be seen as a chronic feature of everyday action and involves the conduct not just of an individual person, but also of others around that individual. This means that actors do not only monitor continuously the flow of their activities and expect others to do the same for their own, they also routinely monitor the social and physical context in which they move. This concept is worked out by Giddens in the stratification model. In this circular model actors reflect on their actions, their — sometimes unintended — consequences, and adjust their forthcoming actions accordingly (Giddens, 1984). In acting, agents thus draw on features of the system in which they function (Stones, 2005) because they consciously or unconsciously decided it is in their best interest for whatever reason. Consequently, the structure of the system exists because of these actions. A system consists of structuring features that are used as resources by agents. In Giddens’ words, agency is ‘the capacity to act otherwise’. In acting, agents can draw on three structural dimensions of social systems by means of three matching modalities, leading to three matching modes of interaction. First,
agents draw on the dimension of signification, comprising meanings, dominant discourses and rules by making use of interpretive schemas also called modes of typification incorporated within the actors’ stocks of knowledge. This is also called applied reflexivity in the sustaining of communication. Second, the dimension of domination, meaning having control over resources, can be drawn upon via the modality of facility leading to the exertion of power. Power, in this respect, means that an agent is able to change the structure, for which knowledge about systemic features is needed. Last, the dimension of legitimation, comprising norms and rules, can be drawn upon via morals and norms, leading to imposing sanctions (Giddens, 1984). Such structuring features thus form the actions of agents that create and maintain the system. They may be seen as forming the regime, i.e. the ‘deep structure’ or grammar of socio-technical systems — the socio-technical regime (Rip & Kemp, 1998; Geels, 2004). While an enduring problem is a tangible problem on the system level, it is the underlying structure that makes it persistent. For instance, a medical protocol may have adverse effects, but it only structures a part of the health care system if medical practitioners adhere to it. Because some do adhere to the protocol, a context is created in which other agents recognise the importance of this protocol and take it into account when planning their own actions.

Resources, as any systemic feature, are not static, but inherently contested: agents make use of resources and in the process try to foreground the value of their resources, while on the other hand discrediting the value of resources of opposing agents. What is considered a resource for one agent can be considered a constraint for another agent (following Giddens (1984): structure is both constraining and enabling). Resources can therefore be seen as symbolic capital (Bourdieu, 1990). The structuring features of a system are resources for agents and therefore tied to power positions of agents that have a stake in upholding the value of the particular feature. According to Bourdieu (1990), agents reside in a field. This is a social space, in which agents interact with other agents, including institutions, and have common properties with some actors. Such a field can be a work-related environment or a more undefined area like the alternative music scene. Between these fields and in these fields a continuing struggle for power exists between all the agents involved to obtain scarce resources. In every field rules of the game exist that actors ought to live by or have to follow to obtain resources. To do so, agents make use of capital. Some forms of capital are symbolic in that they are not based on objective elements existing outside the subjective perception of agents. The capital, and the power that comes with it, exist because some agents understand the rules of the game and draw on this capital to obtain their goals, which in itself can deliver those actors a more powerful status. Due to this powerful status, they are thereupon able to impose on other agents the notion that particular capital is valuable. These other agents then recognise its value because of the power the agents possess (Bourdieu,
The conclusion of this argument pointing to a circular and self-fortifying process is that symbolic capital is always defined by the system in which it is valued. A recurrent problem for novel practices thus might be to justify their product or underlying rationale because they draw on different resources than the regime in which they (try to) function.

Bourdieu explicitly points out the unintentional part of this process. That is, actors actively and intentionally draw on capital, but are not aware that it can be seen as symbolic. Here he agrees with Giddens (1984), who holds that actors do not always act on motivations of which they are conscious. In the stratification model competent agents are expected to explain, when asked, most of what they do (Giddens, 1984: p. 5). It has to be said, however, that rationalisation of one’s conduct does not refer to actors acting rationally. Much of day-to-day conduct is not consciously motivated, people rationalise, based on unconscious motivations, much of their actions only after the act itself. This notion is well supported by the disciplines of psychology and neuroscience (see e.g.: Purves, 1997; Libet, 2002). More recently, also in sociology the role of unconscious or emotional motivations in behaviour are brought forward (Massey, 2002). It can be said that actors reproduce systemic features without being actively aware of it since they motivate their actions based on what is unconscious. Systems can thus emerge and subsequently retain elements that have evolved through nobody’s conscious intention. Just like in human history, the history is created by intentional activities and not an intended project (Giddens, 1984). A system, as such, has no conscience, goal, or opinion. It just is. And it is because every piece of it is enacted by agents.

The motivation for action then lies in the internal structures of agent; some elements are on an unconscious level while some are actively reflected upon. In day-to-day behaviour, Giddens sees practical consciousness as central. This consciousness consists of all the things that actors know tacitly about how to ‘go on’ in the contexts of social life without being able to give them direct discursive expression. Practical consciousness has to be distinguished from consciousness (discursive consciousness) and the unconscious. The discursive consciousness denotes the ability of agents to give verbal expression to their knowledge about the social conditions of their action and how they go on within these conditions. Together, these form what Giddens calls the knowledgeability of an agent (Giddens, 1984: p. 5-16; Stones, 2005).

According to Bourdieu, agents develop in every field, consciously and unconsciously, a certain habitus, a sustainable way of perceiving, thinking and acting that enables the agent to make use of the capital. This habitus, or disposition of agents, contains the mental structures through which the agent apprehend the social world and is essentially the product of an internalisation of the structures of the social world. The longer an agent resides in a field, the more the field is internalised. The link back to society works via the influence
the habitus has on future actions that, in their turn, influence the field (Emirbayer & Johnson, 2008). Building on both the work of Giddens and Bourdieu, Stones (2005) analytically separates the internal structures of agents that underlie conduct into the *general-dispositional* type of internal structure, which encompasses the unconscious, by socialisation internalised way of seeing the world — also known as ‘doxic’ (Bourdieu, 1977: p. 167-9) — and the *conjuncturally-specific*, which refers to the agent’s more specific knowledge of particular settings and contexts (Stones, 2005). In the *general-dispositional* internal structure both the idea that the current system does not function as it should as well as the structuring features of the system are present. A change agent also reproduces (parts) of the system in which it functions — and is not always aware of that. The *conjuncturally-specific* internal structure comprises how the agent perceives her immediate external structural terrain from the perspective of her own project, whether in terms of helplessness, empowerment, or a complex combination of the two.

The underlying structure of a system, effectuated through the actions of agents that are based on their internal structures, is usually laid down in rules and institutions, which agents follow, neglect, make use of, and reflect on. According to Hall and Thelen (2006), institutions can be conceptualised as “a set of regularized practices with a rule-like quality in the sense that the actors expect the practices to be observed, and which in some, but not all, cases are supported by formal sanctions”. Institutions can thus be seen as the link between structuring properties and day-to-day action of agents, because they form the visible context of actions. Structuring features of a system manifest themselves in this context. Within these institutions, health care practices, health research practices, and a wide variety of other health practices exist. These practices can consist of one or more practitioners working in a department, or of multiple practitioners located in different institutional settings. (Agents working together within a certain health care practice can thus have multiple institutional contexts, with different sets of rules and resources.) In all practices, agents function according to their own internal structures. A regularised practice around a certain care problem, such as a patient, thus functions as the hinge between the underlying structure and the conduct of agents that is based on their internal structures and in reflexive interaction with the (institutional) context. Just as stated by the theorem of the duality of structure, the health care practice structures these internal structures, whereas the internal structures of the separate actors shape the practice in focus (Stones, 2005). Systemic production and reproduction thus happens via the actions of agents in the system, based on the via reflexive monitoring internalised systemic features that structure the actions of agents.
2.2.2 Systemic reproduction of negative side effects of success factors

Systemic embedment of enduring problems and their persistence can be understood when taking agents as producers and reproducers of a system into account. Agents whose conduct is structured by systemic features. Impediment of solutions dealing with problems of sustainability is then the result of systemic reproduction. For an insightful conceptualisation, a next step is needed. Work of Grin and others has pointed out that to unravel how enduring problems are embedded along with the resulting systemic mechanisms of (re)production, it is important to understand the historic context and the process of co-evolution which led to the current structure. They have done so on several occasions and in several fields of study, for instance agriculture and health care (Roep et al., 2003; Grin, 2004a; Grin, 2004b; Grin & Van Staveren, 2007; Hendriks & Grin, 2007; Bos & Grin, 2008). Within this historic context, features that are part of the success of the system — in terms of desired outcomes like general improved health conditions — are relevant. These features, through education and upbringing, are likely to be internalised by many agents, thereby structuring their actions. If actions of agents effectuate structural properties, then the communal actions of many agents have a strong structuring effect on a system, via the influence this has on the behaviour of other agents. These success factors can also be located on the level of deep structure in socio-technical regimes (Geels, 2004), or can be seen as underlying the dominant practice in a societal system that makes up the regime. In that sense, success factors are regime elements.

These success factors can, however, be related to problems. According to Beck (1997), current techno-social systems and institutions may have yielded a significant progress and improvement of the human condition over the last couple of centuries, but along with these benefits, risks and side effects have been produced. These issues, logically, cannot be dealt with based on current paradigms that dominate the system, because the regular solution-producing pathways are also the producers of the problem (Grin, 2004a). Building on this, Grin and Van Staveren (2007), while working on governance of system innovations, identified ‘perverse couplings’: connections between positive effects of progress in a production system and negative side effects. Institutions, as Hall and Thelen (2006) described them, are then solidified power structures, well equipped to solve problems at that time. The tools, or resources (rules, laws, financial structures, guidelines) used by agents to solve those problems are also symbolic capital; besides being helpful to solve a set of problems, these tools are bound to positions and power of agents. These agents will (unconsciously) foreground the value of those resources, even when the tools have become counterproductive in some cases. Within these institutions, health care practices are the hinge between
strongly structuring system factors and the concrete or day-to-day problems agents try to solve. When innovative agents try to deviate from preferred solution pathways, agents work against the innovative agents that 1) are themselves part of practices, which 2) are, in turn, structured by the underlying success factors. This means that the success factors of a system can be seen, first, as features that produce problems, since some identified enduring problems that appear difficult to solve can be understood as negative side effects of these success factors; and second, as the underlying reason why these enduring problems are reproduced and hence become persistent. These systemic features cause a bias, because some solution pathways are preferred, and subsequently acted out by agents, even though they continuously fail to lead to a satisfactory solution. A persistent problem can thus be understood as a **systemically reproduced negative side effect of a success factor of the system in focus** (see fig. 1.), and any attempt to identify or unravel persistent problems should include a historically informed system analysis.

![Figure 1. Identifying persistent problems](image)

**Persistent problem**

Systemically reproduced negative side effect of a success factor (as described by practice and literature).

**Success factor**

1) Structures system and practices in system.

2) May have negative side effect: enduring problem.

3) Causes a bias in solution pathways: (re)production of enduring problems.
2.2.3 An iterative approach

The persistence of problems is rooted in social reproduction. However, social reproduction is non-specific. It is a process, not a specific sign of problems. A historically informed system analysis identifying success factors with negative side effects is a next step. But, not all success factors have negative side effects, just as all problems do not have to be negative side effects. Social reproduction thus explains the persistence of enduring problems, but holds no clues about how to identify or unravel inherently social persistent problems themselves. To get from retrospective labelling of problems to actively identifying and unravelling persistent problems, the concept is operationalised by iteratively combining 1) a historically informed system analysis with 2) a more inductive system analysis, following the perspective of a novel practice. (See fig. 1.) This operationalisation brings this model to the actor level, and can be used to highlight where and how problems embedded in the system manifest themselves in the daily practice of agents that try to take on those problems. As such, the perspective of a novel practice that points out problems, describes them, and tries to solve them, is indispensable. A problem without active intervention may be enduring, but only becomes persistent when those performing the intervention are facing serious inertia or resistance. Thus, a persistent problem only becomes visible if people are working on it — an approach very much in line with Kurt Lewin’s remark that trying to change something is the best way to true understanding (Broerse et al., 2010).

The identification of persistent problems in a given system needs to be an iterative process to overcome two related problems: first, if the historically informed literature review is too extensive and leading, the researcher would run the risk of imposing (theoretical) views on the practice, thereby rendering the analysis powerless. A problem related to structuralist approaches. This problem can be approached by focussing on what systemic features are made relevant by the practice in focus. Second, the focus on one particular practice runs the risk that a researched practice is nothing more than an instance of itself. A risk associated with more relational approaches. If no systemic background information is included, there is no reason to assume findings are transferable to other practices or settings. The practice, in iteration with problems described in the literature, can point towards relevant enduring problems that may be systemically reproduced and thus become persistent. Both parts inform the other part, and information and analyses have to be adjusted constantly. In mathematics, an iterative method attempts to solve a problem by finding successive approximations to the solution starting from an initial guess. This method is used when dealing with non-linear problems, or linear problems involving a large number of valuables. The method introduced in this section is based on this principle: data from the historically informed system analysis is used to inform the actor-guided
system analysis, and vice versa, leading to an increasingly precise system analysis. The researcher thus needs to have a dual-perspective in investigating the practice: analysing the practice in focus shows what the problems are, and the researcher may then identify the problem behind the problem based on the iteration with the historically informed system analysis.

This approach explicitly helps to unravel what the persistent part is of the problems as identified by the agent in focus. If the actor would already have a clear view on the issues underlying the problems, the barriers would not be that massive. This co-driver’s perspective also offers the opportunity to evaluate findings together with the initiators of the practice in focus, adding an extra validation and a next iterative step.

2.2.3.1 Historically informed system analysis

The first part of the iteration is a historically informed system analysis. Historically informed first and foremost encompasses the emergence of the current system, as pointed out in section 2.2.2. Success factors, and how they are anchored, have not come into being overnight. In constructing the story of the co-evolution of the system, one can follow the main problems that dominated the agenda in specific episodes, discuss how multiple actors responded with initiatives, and how these co-evolved with structural change. In addition, it is important to pay attention to critical debates in the scientific literature about those main problems. These scientific debates likely point to problems that are more widespread than a single case — which is generally the aim of scientific research.

This description of the process of co-evolution gives insight in relevant regime actors, who act through institutionally and culturally paved pathways, and the rules and resources they base their actions on. Rules and resources that are elements of the regime they function in. Some of these regime elements, however, are subject of discussion. Contested regime elements are brought forward in debates in the (scientific) literature about problems in the system. These contested regime elements can be tied to enduring problems; success factors with negative side effects. These negative side effects, manifesting themselves as enduring problems, might be reproduced.

This is not to say that this historically informed analysis yields a clear description of systemic success factors with negative side effects. A historically informed system analysis will eventually lead to sensitising concepts that can be used in subsequent case studies. A historically informed system analysis thus presents a first draft of the reconstruction of an incumbent regime, with a focus on regime elements that underlie the success of the system, and are said to be linked to enduring problems. This line of reasoning lies at the basis of the first question of the five-question-method as part of the UPP framework described in section 2.4.
2.2.3.2 Actor-guided system analysis

When bringing the conceptual framework of systemic reproduction to the actor level, the focus needs to be on a practice that is participating in the debates about enduring problems; a practice that implicitly or explicitly tries to deal with identified negative side effects of contested regime elements. This more inductive element of the framework consists of three elements, drawing on the work of Stones (2005): 1) the unconscious, by socialisation internalised, manner in which the initiators of the practice see the world; 2) the initiator’s more specific knowledge of particular settings and contexts; 3) relevant issues in the context the practice functions in. (See fig. 2.) The actor-guided part in this sense draws on how Stones (2005) formulated how to reconstruct a system through the eyes of an agent. When the interaction between agents and system is continuous, and the system cannot be separated from the actions of agents, and vice versa, the question is where to start unravelling how this interaction underlies the systemic reproduction of problems. Based on 20 years of accumulated critiques on structuration theory, Stones formulated his own revision, called ‘strong structuration’. He builds a bridge between ontology and empirical evidence using this construct. Stones denominates Giddens’s version of structuration theory as dealing with the more abstract, philosophical level, and expands this framework to the more practical level of particular social processes and events in particular times and places. Stones first breaks down the notion of the duality of structure into four analytically separate components and defines for each the role it plays in the cycle of structuration: 1) external structure, forming conditions for actions; 2) internal structure of the agent, itself analytically separated into the general-dispositional type of internal structure and the conjuncturally-specific (see section 2.2.1); 3) active agency, which includes a range of aspects involved when agents draw upon internal structures in producing practical action; and 4), the outcomes of action as external and internal structures and as events (Stones, 2005). The central starting point for reconstructing a system through the eyes of an agent is then the internal structures of an agent-in-focus, situated in a position-practice (Stones, 2005).

If the internal structures of a particular agent can be the starting point for the reconstruction of a system, then a novel health care practice, dealing with identified enduring problems, can be a starting point for identifying and unravelling persistent problems. In particular, for identifying the reproduction of negative side effects of systemic success factors, it may be especially helpful to investigate the projective part of the agency of the innovative actor. The concept of projectivity is introduced by Emirbayer and Mische (1998; 2008), who disaggregate agency into three analytical elements: 1) the iterational element, which is the selective reactivation by actors of past patterns of thought and action, as routinely incorporated in practical activity, thereby giving stability and order to social universes and helping to sustain
identities, interactions, and institutions over time; 2) the *projective element*: projectivity encompasses the imaginative generation by actors of possible future trajectories of action, in which received structures of thought and action may be creatively reconfigured in relation to actors' hopes, fears, and desires for the future; and 3) the *practical-evaluative element*: the capacity of actors to make practical and normative judgments among alternative possible trajectories of action, in response to the emerging demands, dilemmas, and ambiguities of presently evolving situations. All of those forms can be found in each and every empirical case, but in different ratios. The orientation on action of agents can shift between those components of agency, meaning that the level of flexible, inventive and critical interaction with structuring elements of the system can differ and change. If agents are 'on a role' within the current system, they will reproduce it without reflexive distance: 'swimming with the current' (Emirbayer & Mische, 1998: p. 1009-12). When agents feel things are not going well, for instance because a certain set of patients continuously do not benefit from the offered intervention, agents may, first, become more practical-evaluative, leading to the creation of a new intervention or entire new practice to counter this dissatisfaction: *projectivity*. Looking at the *projective* part of agency of a change agent thus leads to identifying systemically embedded problems, because this comprises both the insight of an agent into systemic problems — which is why the agent feels a novel practice is needed — and insight into the mechanisms by which these systemic problems are reproduced — formulated in ideas about how to circumvent problems concerning the construction of the practice within its systemic context. (See fig. 2.)

Building on the conceptual framework laid out above, the work of Stones is combined with the notion of *interpretive frames* (Grin & Van de Graaf, 1996) to guide the empirical work and the analytical part. This leads to five guiding questions as presented in section 2.4. The formal reasoning behind these questions and the legitimisation and theoretical grounding of the method is based on four recurrent steps, as defined by Stones (2005). Starting from the internal structures of the agent in focus, these steps are based on the methodological bracketing of the analysis of the practice in focus into an agent's *conduct* and an agent's *context* analysis. The method draws on and specifies these steps. According to Stones (2005), agent’s *conduct* analysis refers to unravelling and structuring the internal structures of the agent: her reflexive monitoring, her ordering of concerns, her motives, how she carries out the work of action and interaction within an unfolding sequence. Agent’s *context* analysis refers to unravelling the social nexus of interdependencies, rights and obligations, asymmetries of power, social conditions, and consequences of action *from the perspective of the agent-in-focus*. 
Figure 2. The Unravelling Persistent Problems (UPP) framework focusses on four elements, 1) the unconscious, by socialisation internalised way the initiators of the practice see the world; 2) the initiator’s more specific knowledge of particular settings and contexts; 3) relevant issues in the context the practice functions in. This figure is a detail of figure 1, which contains the link back to; 4) systemic success factors and how their negative side effects manifest themselves in enduring problems. The letter a, b, c and d refer to the guiding questions of the UPP framework formulated in section 2.4.

The first step of the, recurrent, steps as described by Stones is to identify the general-dispositional frames of meaning of an agent-in-focus. A good approach to actually do so is interviewing the agents that initiated the practice by making use of interpretive frames. This term refers to a quadruple set of preferred solutions, accompanying problem definitions and empirical and normative background theories. The four layers are connected by the question why? The first layer contains the solution preferred by the actor, or what the actor perceives as a (possible) solution to the identified (enduring) problem. The problem definition of the actor, meaning the problem put forward, then constitutes the second layer. The third layer contains the assessment of the problem by the actor, thus the reasoning why the mentioned solution is preferred for the identified problem. This layer thus contains all knowledge of the actor, including knowledge of the (institutional) context in which he works. Fundamental preferences and normative ideas form the fourth layer.
(Grin & Van de Graaf, 1996; Grin et al., 1997). A new practice is formed around a certain problem. The path to the general-dispositional frames of meaning of an agent thus begins by talking about what solution for what problem had been devised. The fourth layer then represents these taken for granted, unconscious, notions. These general-dispositional notions thus also encompass the (symbolic) value the agent-in-focus attributes to certain systemic features. (See fig. 2.)

According to Stones, the second step, still within the agent’s conduct analysis, is to work from an identified general-dispositional frame and go on with focussing on the conjecturally-specific internal structures of the agent-in-focus. The goal, thus, is to identify how the agent perceives her immediate external structural terrain from the perspective of her own project, whether in terms of helplessness or empowerment, or a complex combination of the two. This part of the analysis can be done by structuring the information found in the third layer of the interpretive frames into clusters of important issues, e.g., diagnostic problems, or endless referrals of patients. (See fig. 2.)

In the third step, again according to Stones, one can identify, as analyst, relevant external structural clusters, including the overall frames of the agents within them. This involves the wider context of the health care practice and leads to the structural properties that constrain or enable the practice in focus. These structural properties manifest themselves in the support or impediment the practice experiences, like policy themes, legislative rules, material structures or the actions of other agents, as well as the structural properties those other agents base their actions on. This context analysis thus requires a variety of research actions, like more interviews with relevant actors in- and outside the health care practice, participant observation, and literature research, but must always be guided by the information from the first two steps. Furthermore, this third step must be guided and constrained by the earlier mentioned historically informed system analysis. This is where the link between the underlying success factors, their negative side effects, and systemic reproduction can be constructed. These three steps form the actor-guided system-analytical part as such. (See fig. 2.)

There is a final step as described by Stones, which can be used to fortify the analysis, but is as such not indispensable for the analysis itself. This final, and fourth step is to investigate the possibilities for action and for structural modification allowed by external structures, as well as the constraints and influences imposed upon the agent-in-focus by these external structures. In doing so, the knowledge gained is iteratively tested, as well as further developed by means of reflexive monitoring, fulfilling the recurrent element of the steps as specified by Stones. This means that the fourth step can be used to aid the practice in focus, or other novel practices to survive or have broader impact, and contribute to a transition or system innovation in the three ways as explained in section 2.1.
2.3 Research design

As stated in section 1.3, the primary aim of this research is to identify and unravel possible persistent problems in the Dutch health care system. To make this possible, the secondary goal of this research is to develop and evaluate an instrument for identifying and unravelling persistent problems. A conceptual framework that can be used for this purpose has been developed in section 2.2, building on work done in the fields of transition and system innovation studies (cf. section 2.1). Now it is possible to formulate the main question of this research:

What can we learn from novel practices in health care about which coherent mechanisms and underlying features produce and reproduce enduring problems, and how can they be unravelled?

The first part of the main research question will be answered in chapter six, based on the analyses in chapters three, four, and five. The second part of the research question, how this can be done is further elaborated on in section 2.4, and is evaluated in chapter six.

2.4 Guiding questions of the UPP framework

Based on the conceptualisation above, a persistent problem can be seen as a systemically reproduced negative side effect of a success factor of the system in focus. The negative side effect then is an enduring problem, as described by the practice in focus, as well as in the literature. (See fig. 1.) Bringing together the historically informed part of this conceptual framework with the further specified steps and combined with the analytic tool of interpretive frames, five guiding questions as a method for analysing system deficits can be formulated. This five-step method is aimed at analysing the structural properties of regimes through which enduring problems are reproduced and thus resistance to change is effectuated. However, these five questions cannot be dealt with in a purely linear way in time. Question b) is rather clear-cut, but as the research develops, one might have to go back to the data or revisit earlier empirical sources. This is, as said, an iterative method. (See fig. 2.)

1) Historically informed system analysis
   a) In historically embedded debates about enduring problems, what underlying features of the system have been described as both success factors and features that lead to problems in terms of affordability, accessibility, acceptability or quality of health care?
2) **Actor-guided system analysis**

b) How does the novel care practice in focus organise itself; what solutions fit what (care)-problem? *(Interpretive frames layers one and two; projective part of agency)*

c) Premise and expectations underlying the practice; how does the current (health care) system function? *(Interpretive frames layers three and four; conduct analysis; projective part of agency)*

d) What kind of support or impediment does the practice experience; like financial, managerial, organisational, non-cooperative colleagues or patients? *(Context analysis; projective part of agency)*

e) What, if any, is the link between described success factors with negative side effects (question a), how the practice tries to overcome this (questions b and c), and how the practice is supported or impeded (question d)?

2.4.1 **Methodological approach**

The guiding questions function as point of departure of both the data gathering and analysis in chapters three, four and five. However, the methodological approach described here is also the product of the application of the framework developed in this chapter, and thus a description of how this research was done. Because the aim of this chapter is to present a general method, the product of the theoretical development, combined with the actual application of the UPP framework is written in present tense, as a set of instructions.

Question a) can be, tentatively, answered by a literature review. Since enduring problems are systemically embedded, the focus is, first, on a description of how the current system emerged. Second, enduring problems as pointed out by various actors can be described. Because actors involved usually have different views on what the actual problem is, and what (kind of) knowledge is relevant, these problems can be discussed by describing the debates around those problems. In these debates, researchers have usually pointed out underlying causes, underlying problems, or relevant systemic features. Debates of medical professionals then can be found in the medical literature, but also in research of sociologists and anthropologists. In concurrence with the description of how the system came into being, possible success factors that may have negative side effect can be identified. As said, this literature research should not lead to a restrictive analysis, hence ‘tentatively answered’; there should be room for debate and uncertainty. This part of the analysis should be iteratively combined with the issues made relevant by the initiators of the novel practice, and other (regime) actors around the practice in order to identify relevant systemic features that are involved in the (re)production of enduring problems.
Question b) focuses on the problem definition of the practice. This basically asks what the practice actually does, departing from the perspective of the practice on how identified problems can be solved. An approach is to describe a short history of the practice: what are they doing now and how did they get there. This is a factual account with as little analysis as possible. One or two interviews with the initiators can be sufficient. Likely a report or other documentation about the practice exists that can be used. Question c) can be answered by further researching the underlying rationale of the problem definition of the practice in focus. In the information gathered for question b), a set of (recurrent) issues in both the point of departure and in important moments in the development and current workings of the practice is probably visible. Around these issues other actors, with their own problem definition, interact with the practice. Structure manifests itself via the actions of agents and thus in issues that show up recurrently. Elaborating on the issues and describing the underlying reasoning of the practice in focus regarding these issues and their nature can then answer this question. It is important here that all issues are approached from the perspective of the practices.

Question d) departs from the identified issues relevant for the functioning of the practice. All identified issues, being impeding or supporting, need to be further investigated, including the role of other actors in the manifestation of these issues, and the problem definition underlying the actions of those other agents. For this, interviews with other actors, as well as more literature research can be used. Likely, one important factor is the patient and his or her attitude towards the novel care intervention. If enough data is available, also via Internet forums dealing with the disorder in focus, the researcher can construct a parable of the patient here. This combined narrative of multiple patient stories contains several, partly overlapping issues. It is not a biographical story of one patient, nor an all-incorporating history of patients based on a longitudinal study. Rather, it is an ideal typical account of what a patient may experience, based on, again, an iteration between issues and themes encountered in the literature and interviews with patients and professionals.

When saturation regarding information relevant for the functioning of the practice and how it is supported or impeded is reached, question e) can be answered. According to Marshall (1996), the sample size of a qualitative research is large enough when new themes, categories or explanations stop emerging from the date, called data saturation. In a number of the issues described as part of the answers to questions b), c) and d), negative side effects of success factors can be identified. Reproduction of systemic problems can be found if issues recur and connect in c) and d); in other words, in both the reasoning underlying the novel intervention of the practice and in how and why the practice is impeded or supported. Here the researcher, thus, analyses if and how underlying structure manifests itself in the practice in focus.
manifestation can also occur through the actions of the change agent himself, who may unintended and unconsciously reproduce systemic features.

2.4.2 Case selection

The guiding questions and approach introduced above are used in this research to unravel mechanisms of reproduction of enduring problems in the Dutch health care system. This UPP framework is further developed, and evaluated, by applying it to the case studies. All the novel practices that are chosen have the goal to improve health care and are engaged in a shift on the axes of cure-care and body-mind (cf. section 1.1.2) as a reaction to insufficient care provided by the current system. In the various fields in which these practices operate, the persistence of problems manifests itself prominently. This is because the issues can be seen, first, as a result of success of the system, and second, because the practices encounter systemic opposition. The first practice, described in chapter four, developed a new approach to deal with patients with Medically Unexplained Physical Symptoms (MUPS). For these patients, medical knowledge does not have a clear answer on how to categorise and treat the illness. As a result, the patient is either being bounced left and right between different care-providers, who all transfer the patient to the next specialist, or the patient gets a medical treatment that does not really help, but it is given anyway. This is for instance the case with the treatment for Irritable Bowel Syndrome as described in section 1.2.

To fortify (or contradict) the analysis as made based on the MUPS-case, chapter five adapts the UPP framework to do a quick scan of how novel practices are impeded and analyses two cases through this framework. The first is an intervention study into care for chronically ill diabetes patients, the second a novel practice to supply psychotherapy through the Internet. These cases are differently distributed over the axes body-mind and cure-care. MUPS are (according to some) both mental and physical. The aim of the intervention is cure of physical complaints, but the route taken goes via mental care. Diabetes as a disease has (according to some) both mental and physical elements. Regular treatment however is mainly concerned with monitoring the physical part. Since the identification of the disease there has been hope for a cure, but so far all interventions are care-related. The new practice Interapy is (according to some) explicitly aimed at cure of mental problems, but in its approach, it includes care for physical factors. All these practices somehow try to overcome institutional and cultural boundaries concerning cure-care and body-mind in order to improve availability, accessibility, acceptability and quality of care, and encounter systemic opposition in doing so.