

**Master's Thesis for the Environment and Society Studies Programme Nijmegen School
of Management Radboud University**

Exploring sustainability in the Dutch Healthcare system: a discourse analysis of the effect of
COVID-19 on sustainability perspectives

This document is a Master Thesis for the completion of the Master Environment and Society Studies at the Radboud University Nijmegen, The Netherlands.

Colophon

Document	Master's Thesis
Programme	Environment and Society Studies
Specialization	Corporate Sustainability
Date of Submission	17 th August 2020
Author	Lisa van Hout
Student number	s1026650
Supervisor	
University	dr. ir. J.D. Liefferink Radboud University Nijmegen
Second Reviewer	dr. M. Kaufmann

Acknowledgements

Before you lies the final product of months of writing, rewriting and fine-tuning. I would like to thank the following people for their involvement in this research project, without whom the end product would not have been the same.

Firstly, my gratitude goes out to my thesis supervisor, Duncan Liefferink, whose close guidance and feedback has helped me tremendously throughout the writing process.

Secondly, I would like to thank the Sint Maartenskliniek, and especially Jan-Willem Berends, who provided me with a much appreciated internship. Unfortunately, due to the outbreak of COVID-19, this internship lasted only 6 weeks.

Thirdly, I would like to thank all interviewees of the Sint Maartenskliniek, Isala and Lentekracht, who were kind enough to take the time to provide me with in-detail knowledge on the topic of sustainability in healthcare.

Lisa van Hout

Nijmegen, 12th August 2020

Keywords: sustainability transition; discourse analysis; sustainable healthcare; COVID-19; change and stability.

Summary

This research is an exploration of the effects of COVID-19 on discursive positions in the Dutch healthcare system. Discursive positions employed in this research originate from Cultural Theory, in which the individualist, hierarchist and egalitarian perspective are distinguished. The multiple level perspective (de Haan & Geels 2018) was used in to provide for the context of the discourse analysis and provided for three levels of analysis, namely the macro, meso and micro level. The macro level was analysed by the employment of a media content analysis of Dutch news articles. Data for a first discursive sketch of the meso level originated from interviews with healthcare experts. Moreover, the micro level of niches was analysed using data retrieved from interviews with employees of the case studies of the hospitals the Sint Maartenskliniek and Isala. The three parts of the analysis were combined in order to answer the research question.

On the macro level, a discrepancy between the individualist and egalitarian perspective was visible. The individualist perspective was visible in the finding that companies try to use the crisis as an excuse to bypass environmental legislations and agreements; the egalitarian perspective was visible in the finding that companies try to plea for a sustainable recovery of the economy after the situation has calmed down a bit.

On the meso level, the helicopter interviews with healthcare experts employed the concepts of metaphors, narratives and story line (Hajer, 2006). The discursive perspective that was mostly visible in the helicopter interviews is the hierarchist discourse in which experts create knowledge and provide with an action perspective on how to work more sustainably in the healthcare system.

On the micro level, the interviews with key players of the two cases the SMK and Isala showed that actors are willing to work more sustainably, yet do not put sustainability into practice.

The data from the three different levels showed a dispersion of structuration and institutionalisation of discursive position in the healthcare system. This might be a reason why the healthcare system is lagging behind in terms of sustainability, compared to other systems. Moreover, this might explain the difference in level of sustainability between hospitals. To create a more sustainable healthcare system, knowledge has to be developed and shared throughout the entire system in order to offer employees an action perspective on how to work more sustainably.

Table of contents

1. Introduction to the Research	6
1.1 Problem Statement, Research Objective and Research Questions	7
1.2 Scientific and Social Relevance of the Research	9
1.3 Research Outline	9
2. Theoretical Framework	10
2.1 Structure-agency Debate	10
2.2 Discourse	11
2.3 Discourse Analysis	12
2.3.1 Two Dimensions of Discourse Analysis	12
2.3.2 Discourse Analysis of Maarten Hajer	13
2.4 Transition Concepts	15
2.4.1 Multi-level Perspective and the Micro, Meso and Macro level	15
2.5 Exploring Change and Stability	17
2.5.1 Change and Stability	19
2.6 Cultural Theory	19
2.7 Conceptual Framework	21
3. Methodology	23
3.1 Epistemology and Ontology	23
3.2 Research Strategy and Research Design	24
3.3 Research Method, Data Collection and Data Analysis	25
3.3.1 Media Content Analysis	26
3.3.2 Helicopter Interviews	27
3.3.3 Interviews with Key Players	27
3.4 Identification of Key Incidents and Interpretation of Discursive Structures	28
3.5 Codebook	29
3.6 Validity and Reliability	30
4. Analysis	31

4.1 COVID-19 and Sustainability in Media	31
4.1.1 Economy and Sustainability	32
4.1.2 The Effect of COVID-19 on Thinking	33
4.1.3 COVID-19 and Change	33
4.1.4 Sketch of Discursive Positions	34
4.2 Helicopter Interviews	35
4.2.1 Metaphors	35
4.2.2 Narratives and Story Lines	37
4.2.4 Sketch of Discursive Positions	40
4.3 Interviews with Key Players	41
4.3.1 Individualist Discourse	41
4.3.2 Hierarchist Discourse	44
4.3.3 Egalitarian Discourse	47
4.3.4 Sketch of Discursive positions	50
4.4 Incongruency in Discursive Structuration and Institutionalisation	51
5. Conclusion and Practical Implications	54
5.1 Reflection and Recommendations for Further Research	57
5.2 Limitations	58
6. Bibliography	60
7. Appendices	66
7.1 Interview Guide for Experts	66
7.2 Interview Guide for Isala and the Sint Maartenskliniek	67
7.3 News Articles of Media Content Analysis	68
7.4 List of Abbreviations	69

Abstract

This research employed a discourse analysis in the sustainability transition during and after the COVID-19 crisis. This research adds to the body of knowledge on a sustainability transition in the Dutch healthcare system and explored the problem of ways in which agency and structure induce unsustainable practices. The purpose of the study was to explore how COVID-19 influences the individualist, hierarchist and egalitarian sustainability discourse in the healthcare system in the Netherlands. The basic design of the study is a case study, the method that was used is the ADA discourse analysis originating from Hajer (2006). The MLP is the context of the discourse analysis and is comprised of the micro, meso and macro level, in which the micro level is set in the two case studies of the Dutch hospitals the Sint Maartenskliniek and Isala, the meso level is the healthcare system in the Netherlands and the macro level is the societal debate on sustainability and COVID-19 in the Dutch media. The major findings or trends found in the results are the discrepancy between discourse structuration and institutionalisation in the Dutch healthcare system.

1. Introduction to the Research

All parts of society are influenced by how healthcare is organized and how it functions (Mohrman & Shani, 2014). Many stakeholders are part of the healthcare system, e.g. insurance companies, patients, businesses, suppliers, local governments and associations. Due to this diverse group of actors involved, one could argue that the healthcare system is expansive, dynamic and complex in character. The interaction between the stakeholders involved has been created over hundreds of years and is characterised by the notion of lock-in, which implies that actions in the system are deeply embedded in the structures (Mohrman & Shani, 2014). Systemic change therefore is gradual and difficult to achieve. In comparison to other sectors, healthcare has fallen behind as it comes to sustainability (find source). The problem with sustainability in the Dutch healthcare system – in this research referring to only hospitals, other healthcare institutions, e.g. mental healthcare institutions or home care, fall outside of the scope of this research – is the fragmentation of sustainable initiatives and the lack of implementation of sustainable policies (Mohrman & Shani, 2014). When the healthcare system is mentioned in this research, it refers to the Dutch healthcare system.

People working within the healthcare system increasingly feel the social responsibility to increase sustainability in the sector (Mohrman & Shani, 2014). However, a lack of knowledge on what is needed to do so induces difficulties for benevolent actors. This gap in

the literature is empirically addressed in this research. A further concerning gap in the literature is the concern about the effect of COVID-19 on the sustainability trend in the healthcare system. At this moment, we find ourselves in the midst of a transition on all aspects of societal life: the arrival of COVID-19 shifted almost all interactions between state, market and civil society. Because the crisis has only started recently, a lack of in-depth knowledge on the topic exists. This research adds to the body of knowledge available on the topic of the effect of COVID-19 on sustainability.

In order to explore the effect of COVID-19 on sustainability in the healthcare system, the method of discourse analysis is employed. The application of discourse analysis can be an important contribution to environmental studies —both natural and social— as the development of new concepts derived from it can lead to new understandings of the relationship between the market and the environment (Willig, 2014). In addition, it can lead to new understandings of creating sustainability within all layers of the healthcare system: the Ministerie van Volksgezondheids, Welzijn en Sport (VWZ), the Nederlandse Vereniging van Ziekenhuizen (NVZ), health insurers and all departments of hospitals. A discourse analysis can be done in a realist way; the analysis would then focus on what sort of action was taken and why in terms of the interests of actors and the power structures between them (Hajer, 2006). However, by answering questions related to this, the different meanings that people attach to their interests – and the different narratives that can be shaped accordingly – are not accounted for. Therefore, the key concepts of the theory of Maarten Hajer are used in this research. These key concepts are metaphors, narratives and story lines (Hajer, 2006). The discourse analysis is applied to news articles on the topic of sustainability and COVID-19 and semi-structured interviews with actors in the healthcare system and employees of the SMK and Isala.

1.1 Problem Statement, Research Objective and Research Questions

In the ideal situation policy makers in healthcare institutions consider the environment in their policy making; healthcare institutions are sustainable and the environment is taken into account in decision making. In contrast, today healthcare institutions in the Netherlands are, on a yearly basis, investing only 2 to 3 percent of all expenses in sustainable healthcare (Zorgvoor2020, 2020). Healthcare institutions in contemporary society are a major consumer of electricity, resources and food (Rijksoverheid, n.d.), and encountering an increased demand for high quality health care in spite of the limits of the resources they are evermore

depleting (Mohrman, Shani & McCracken, 2012). Factors that put pressure on the healthcare system, resulting in this increasing demand, are demographics, lifestyle-related chronic disease, technology and increased expectations of patients (Mohrman & Shani, 2012). The healthcare system is complex: it comprises manifold incorporated structures of governments, insurance companies, business among others i.e. that define its state. Mohrman and Shani (2014) argued that most actors regard the current healthcare system to be unsustainable. The existence of the Earth system and our dependence on it is not recognized by most political actors and policy makers (Dryzek, 2018). Mohrman and Shani (2014) refer to healthcare systems as being “the sleeping giant”, meaning that while most parts of state, market and civil society are increasingly becoming aware of the changing realities of society, healthcare systems are not yet realizing that their practices have to meet societal needs: they have to become more sustainable. While this question was being answered by scholars, a shock event occurred; COVID-19, starting at the beginning of 2020. In only a few days the entire global society changed; and with it, healthcare systems too. COVID-19 provides opportunities to invest enormous amounts of money in new sustainable systems. The policy on what the Dutch society will look like after COVID-19 is now being decided upon. The COVID-19 crisis that we currently find ourselves in can be a chance for change, because institutions are pushed into a “quest for new values and norms” (Grin, Rotmans & Schor, 2010, p. 1). Instead of trying to save the old structures, why not create new ones that simultaneously are sustainable?

The primary objective of this research is to set out three different discursive positions on sustainability in the healthcare system. In addition, the objective is to explore the response to COVID-19 within these three discourses; the aim of this research is exploratory in nature, as little or no knowledge on the topic is available (van Thiel, 2014). The main question is:

How does the COVID-19 pandemic affect discursive positions in the Dutch healthcare system?

The context of the discourse is the multiple level perspective (MLP) as explained by de Haan and Geels (2018), which comprises sociotechnical landscape, sociotechnical regime and niche innovations. These three levels and their interpretation with regards to this research are explained in more detail in section 2.4.1.

1.2 Scientific and Social Relevance of the Research

This research makes three main scientific contributions to the extant literature in the field of discourse analysis in the healthcare system. Firstly, COVID-19 is a new and unique situation in which the healthcare system suddenly finds itself. Therefore, research on the topic is rare, especially in combination with how to shift this pandemic to more sustainable practices. Secondly, a lot of sustainability research in the healthcare system is regarding benchmarking tools. Examples of these kinds of policy tools are the Environmental Thermometer certificate and the ISO 14001. These tools provide policy makers in healthcare institutions with a systematic step-by-step check-off system that is very practical in nature in the sense that it is, for instance, assessing the amount of gas that is being used. In contrast, the departure from a global crisis may help to bring more insight in how to address environmental issues in the healthcare system. Thirdly, a discourse analysis can help to create awareness by actors in the healthcare system on their stance as it comes to sustainability.

As for the contribution to society, healthcare is growing rapidly in the Netherlands. In 2018 the government spent 100 milliard euro on healthcare; for comparison, this was 50,8 milliard euro in 2001 (CBS, 2020a). Moreover, healthcare institutions have emitted 1.8 million kg CO₂ in 2018 of the total of 613 million kg CO₂ in 2018 of all Dutch industries (CBS, 2020b). Although this amount seems rather small, the sum of all industries makes for this immense amount. It is of societal importance to better understand the transition that is taking place due to COVID-19 in order to be able to influence this trend towards a more sustainable Dutch healthcare system. This transition might be a potential lead to influence the course of action with regards to a more sustainable healthcare system. Alvesson and Karreman (2000) argued that there is a tension between the micro- and macro level. Research on the micro level can provide the researcher with insights into the local construction of discourse, whereas research on the macro level usually begins with a priori knowledge on the phenomenon. Even though this type of research is difficult, it should be conducted for the benefit of social relevance (Alvesson & Karreman, 2000). The use of data from the micro- and macro level provided for an in-depth analysis at the meso level of the healthcare system.

1.3 Research Outline

This research is structured as follows. In chapter 2, the theoretical framework includes the following theories and theoretical concepts: structure-agency debate, discourse, discourse

analysis, transition concepts, enablers and barriers and change and stability, and cultural theory (CT). The theoretical framework is concluded with a summary of the sub questions. Chapter 3 is on the methodology that is used in this research, discourse analysis, and it is explained and applied to the healthcare system. Chapter 4 consists of the analysis of 18 news articles, three helicopter interviews with healthcare experts and nine interviews with employees of the cases of the SMK and Isala. Chapter 5 is the conclusion of the research and provides with a reflection and practical implications for employees of the healthcare system. Moreover, in this chapter, limitations are discussed.

2. Theoretical Framework

2.1 Structure-agency Debate

In order to provide an answer to the main question, a little side trip to one of the most important and fundamental issues in the social sciences is relevant, namely the issue of the duality of structure (Arts & Leroy, 2006). Anthony Giddens, one of the most renowned theorists in the past two decades (Scott, 2007), is the author of structuration theory (Bryant & Jary, 2003). Although this debate might seem a bit abstract, or high over, structure and agency are two concepts that are indirectly part of the discursive approach in the research question. The structure-agency debate and structuration theory are relevant to comprehend discourse analysis because of two reasons. Firstly, such an analysis depends on the perspective on whether reality is primarily constructed by structure or by agency, or both. Anthony Giddens argued that a dichotomy between agency and structure can be avoided. It can be said that “social structures are both constituted by human agency, and yet at the same time are the very medium of this constitution” (Giddens, 1976, p. 161, as cited in Bryant & Jary, 2003, p. 253). In this sense, structures are created through action, and action is created within structures. Secondly, the structure-agency debate is relevant in this research because the concept of discourse analysis that is used in the analysis, the method as set out by Maarten Hajer, is closely connected to this debate. Hajer (1995, p. ...) argued that:

“we should find out how institutions are made to operate through subject positionings and structure positionings that lend closure to an institutional machinery that can be put to different uses. In this respect analysis should illuminate two things. First, the way in which cognitive and social commitments are routinely reproduced. Second, the way in which discursive 'interpellations' take place, whereby interpellations are understood as those moments where routinized proceedings are interrupted”.

2.2 Discourse

The phrase discourse has been given considerable attention throughout the literature and different definitions have been formulated. One of the founding fathers of the concept of discourse is Michel Foucault. According to Foucault (1970) an analysis of thought is always allegorical to the discourse that it employs. In this sense, any statement, the elementary unit of discourse, that is made is dependent on its conditions, its occurrence and its relation to other statements. “Discourse must not be referred to the distant presence of the origin, but treated as and when it occurs” (Foucault, 1970, p. 28). Foucault argued that:

“We know – and this has probably been the case ever since men began to speak – that one thing is often said in place of another; that one sentence may have two meanings at once; that an obvious meaning, understood without difficulty by everyone, may conceal a second esoteric or prophetic meaning that a more subtle deciphering, or perhaps only the erosion of time, will finally reveal; that beneath a visible formulation, there may rein another that controls it, disturbs it, and imposes on it an articulation of its own; in short, that in one way or another, things said say more than themselves” (Foucault, 1970, p. 123).

The main focus in the theory of Foucault was on power structures. The definition of power as given by Foucault is the way in which someone affects the actions of someone else. These power structures can be seen throughout various institutions in society. This notion of power is inseparably related to the notion of knowledge, implying that if someone makes a particular statement that they perceive to be truthful, some form of power is used (Gamboa, n.d.). Discourse as seen by Foucault is a group of statements that belong to one and the same discursive formation (Foucault, 1970). He argued that “Instead of reconstituting chains of inference (as one often does in history of the sciences or of philosophy), instead of drawing upon tables of differences (as the linguists do), it [a discursive formation] would describe systems of dispersion” (Foucault, 1970, p. 41). The power that someone distributes via the collection of statements that one makes thus creates a particular discourse. In this research, no emphasis on this definition of discourse is utilized because the notion of power implies a form of hierarchy in society and organizations that would presuppose some sort of bias towards the structuralization of the healthcare system. Other perspectives that fit more into a constructivist perspective suit the purpose of answering the research question better because the two case studies of the SMK and Isala are an exploration on how social reality has been constructed, and not so much on trying to understand the interactions between power, knowledge and ideology (Philips & Hardy, 2002).

2.3 Discourse Analysis

Discourse analysis covers both pragmatics (the study of contextually specific meanings of language in use) and the study of “texts” (the study of how sentences and utterances pattern together to create meaning across multiple sentences or utterances (Gee & Handford, 2012). But why use discourse analysis? Because discourse is all around us. Through speaking and writing, people make the world meaningful in a certain way and not in another. As a counteract, this world we shape also influences us as humans and has a thorough effect on our lives. In order to understand this effect, discourse analysis is used. Discourse analysis matters because discourse matters (Gee & Handford, 2012). Hajer and Versteeg (2006, p. 175) mentioned the following three strengths of discourse analysis: “its capacity to reveal the role of language in politics, its capacity to reveal the embeddedness of language in practices and its capacity to answer ‘how’ questions and to illuminate mechanisms”. The first strength of discourse analysis is that it uncovers that even though actors may use the same language, they might mean something different with it. The second strength is that discourse analysis allows one to research how a group of actors try to influence the definition of the problem (Wagenaar, 2006). The third strength is regarding the explanation of why certain definitions in a given place and time arise and others do not. For this research, especially the first and third strengths of discourse analysis are relevant. Discourse analysis is essential for structure positionings, “referring to which structural elements can be changed and what institutions remain to be seen as fixed or permanent” (Hajer, 1995, p. 56). This has to do with the notions of change and stability, concepts that, as shown in section 2.3, are relevant in exploring transition pathways.

2.3.1 Two Dimensions of Discourse Analysis

In order to compare different discourse analytical approaches on the basis of their ontological premises, an axes system can be helpful in providing insight in the different variations of discourse (van Veen, 2015). An example of such an axis is visualized in fig. 2.1. In this framework, the horizontal axis represents the range from constructivist perspectives, that seek to explore how a social reality has been constructed, to critical perspectives, that try to understand the interactions between power, knowledge and ideology. Furthermore, the vertical axis represents the range from context, the broader social construct, to text, referring to the local context in which the text is being studied.

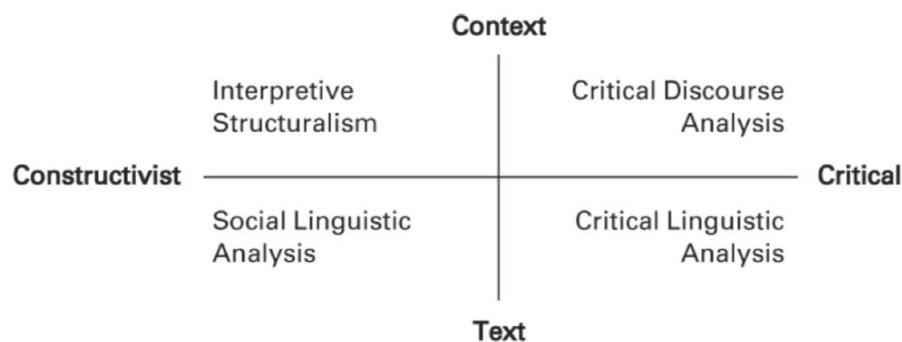


Fig 2.2 Different approaches to discourse analysis.

Adapted from Phillips and Hardy (2002).

The right side of the axis, a critical approach to discourse analysis, is partly developed in inspiration to the work of Foucault; further research is affected by Foucault's understanding of power and knowledge (Phillips & Hardy, 2011). This critical perspective often leads to work that tries to explore how mega discourses shape reality and determine the possibilities of actors (Alvesson & Karreman, 2000). The left side of the axis, a constructivist approach to discourse analysis, is less focused on the political dynamics in discourse and is more about gaining an understanding of constructive processes (Phillips & Hardy, 2011). Hierarchy in organizations is not a point of focus, rather, the point of departure in this approach is from understanding the way in which departing from a particular discourses creates specific statements that all together constitute reality (Phillips & Hardy, 2011). Now that the axis have been set out, the form of discourse analysis that is used in this research is now explained. This form of discourse analysis fits best into the upper left corner in fig. 2.2, and is explained by the utilization of the theory of Maarten Hajer in the next paragraph.

2.3.2 Discourse Analysis of Maarten Hajer

An author that adopted a similar notion to discourse as set out by Foucault is Maarten Hajer. Referring to the structure-agency debate in section 2.1, the connection between the two authors is that both believe that practices are constituted through structures and vice versa. According to Hajer and Versteeg (2005, p. 175) discourse is defined as “an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices”. Discourse analysis as seen by Hajer departs from the idea that when people use language, they shape reality. Discourse analysis is “the examination of argumentative structure in documents and other written or spoken statements as well as the practices through which

these utterances are made” (Hajer, 2006). In essence language never is neutral (Hajer & Versteeg, 2006). In this research, the aim is to explore how the healthcare system “secures the reproduction of her discursive position in the context of a controversy” (Hajer, 1995, p. 51) – or COVID-19 –. Discourse analysis can be applied to the study of policy making to see how institutional patterns in the healthcare system interrelate and to see how change occurs. Hajer developed the Argumentative Discourse Analysis (ADA) approach to assess policies and their framing. However, this approach can be easily adapted to application of other fields such as management in the healthcare system. The ADA lays out three key notions to conduct discourse analysis: story lines, narratives and metaphors. Hajer (2006, p. 69) employs the concept of a story line “to refer to a condensed statement summarising complex narratives, used by people as ‘shorthand’ in discussions. Identifying story lines brings out that people not merely refer to a problem with a fixed identity, but are continually changing the problem definition”. Often, different versions of a story exist in different people and much communication between actors on these stories is based on the suggestion of mutual understanding and on thinking along, while evidently, this suggestion is false; all understanding is built on interpretation (Hajer, 2006). This is where metaphors come in. A metaphor is a word that stands for something else. Hajer (2006, p. 68) cites Lakoff and Johnson (1980) who argued that “the essence of metaphor is understanding and experiencing one kind of thing in terms of another”. An example that Hajer (2006) puts forward is acid rain. Acid rain is a metaphor for the environmental crisis; Dutch people believed that the problem of acid rain was symbolic for many environmental problems caused by industrialized society.

There are two ways to assess the influence of a particular discourse: discourse structuration and discourse institutionalisation. Discourse structuration “occurs when a discourse starts to dominate the way a given social unit – in this research the unit of enquiry is the healthcare system – conceptualizes the world” (Hajer, 2006, p. 70). Discourse institutionalisation occurs when a discourse “solidifies in particular institutions and organisational practices” (Hajer, 2006, p. 70). Even though this might have been a valuable step in this research, the main question is not about the determination of the influence of the three discourses. Therefore, discourse structuration and institutionalisation are left out.

The narrative perspective on discourse analysis is chosen because it offers a fairly neutral view, in contrast to, for instance, the perspective of Fairclough (2013), who has a more critical perspective on discourse analysis that methodologically departs from a so called ‘social wrong’ that needs to be addressed. As COVID-19 and responses thereof are fairly new

phenomena on which not much research has been conducted, this form of discourse analysis serves the purpose of answering the research question of sketching out the representation of discursive positions of sustainability in the healthcare system in times of COVID-19.

2.4 Transition Concepts

Throughout the literature on sustainability transitions several approaches to explaining transitions have been posed, all with their strengths and shortcomings (de Haan & Rotmans, 2018). Examples of such concepts are the Multi-Level Perspective (MLP), Transition Management (TM), Strategic Niche Management (SNM) and Technological Innovation Systems (TIS). For the sake of the brevity of this research these concepts are only mentioned briefly in this theoretical section. The MLP is used in this research to sketch out the context for the discourse analysis. TM is a governance approach that can be used to analyse and structure governance processes in society, short- and long term (Loorbach, 2010). In this research, the object of analysis is discourses; not so much governance processes in COVID-19. Therefore, TM is less useful as an approach for this research. SNM departs from a more technical approach in which it is believed that sustainable innovation can be facilitated by creating technological niches (Schot & Geels, 2008). This approach is not utilized because the focus of this research is on discourses evolving within the context of transition, not on transition, technologies or niches per se. In a similar manner, the TIS is left out because of its predominantly technological approach. One last addition to these approaches is the Advocacy Coalition Framework (ACF) coined by Paul Sabatier and Hank Jenkin-Smiths. This framework is created in the 1980s and is about policy change (Sabatier & Weible, 2007) and offers a more cyclical stage based depiction of a policy process. Although a cyclical based image of a policy process can be interesting to explore, in this research the object of analysis is the healthcare system as a whole and not on the policy process per se. Therefore, it is left out of this research.

2.4.1 Multi-level Perspective and the Micro, Meso and Macro level

The MLP approach is used in this research and will subsequently be explained in more detail. Within the MLP, the working definition of transition is the following: “(...) “a fundamental change in the structures, cultures and practices of a societal system, profoundly

altering the way it functions”(de Haan & Rotmans, 2011, p. 92). The MLP approach allows for an exploration of discourses within the context of the micro-, meso- and macro level that is set out. The MLP is an analytical tool originally created by Arie Rip and René Kemp (1998) to give insights in dynamic social and technological patterns (Rip & Kemp, 1998; de Haan & Geels 2018). In the MLP, technology is regarded a key factor in transformative change in society. The MLP distinguishes three analytic concepts: niche-innovations, sociotechnical regimes and sociotechnical landscape (de Haan & Geels, 2018). According to de Haan and Rotmans (2011) transitions take place within societal systems, e.g. the healthcare system, that in turn are part of society. The dynamics in, for instance, the mobility or legislative system affect the dynamics of any other system as each system is embedded in the entirety of all societal systems. This jumble of societal systems is called the landscape (de Haan & Rotmans, 2011). Within a societal system several subsystems or constellations coexist; some are more on the front, others are less dominant. The subsystem that dominates the social system the most is called the regime. Regimes are outcomes of earlier change (Rip & Kemp, 1998). Constellations that are less dominant and aberrant are called niches (de Haan & Rotmans, 2011). Niches spread over time and may gradually transform the sociotechnical landscape (Rip & Kemp, 1998). The more a technology has reached irreversibility, the harder it is to alter the structure. De Haan and Rotmans (2011) refer to this process as structuration of activities in local practices. In this research, the sociotechnical landscape is equal to the macro level, the sociotechnical regime equal to the meso level and the niche innovations equal to the micro level. Moreover, the scope of the macro level is 18 news articles in Dutch daily newspapers on the topic of sustainability and COVID-19, that provided insight into broader societal structures. The scope of the micro level is two cases, namely the hospitals the Sint Maartenskliniek and Isala. The focus on the meso-perspective in the research question is chosen because the object of analysis is neither long-standing sustainability debates, e.g. capitalism, that take place at the macro level, nor behavioural changes that take place at the micro level. It is at this meso-level that the findings of the micro- and macro level were put together to explore sustainability and COVID-19 in the healthcare system. The micro meso and macro level are used throughout this research to structure the debate on sustainability, COVID-19 and healthcare, in order to set out different contexts levels of analysis.

Increasing structuration
of activities in local practices

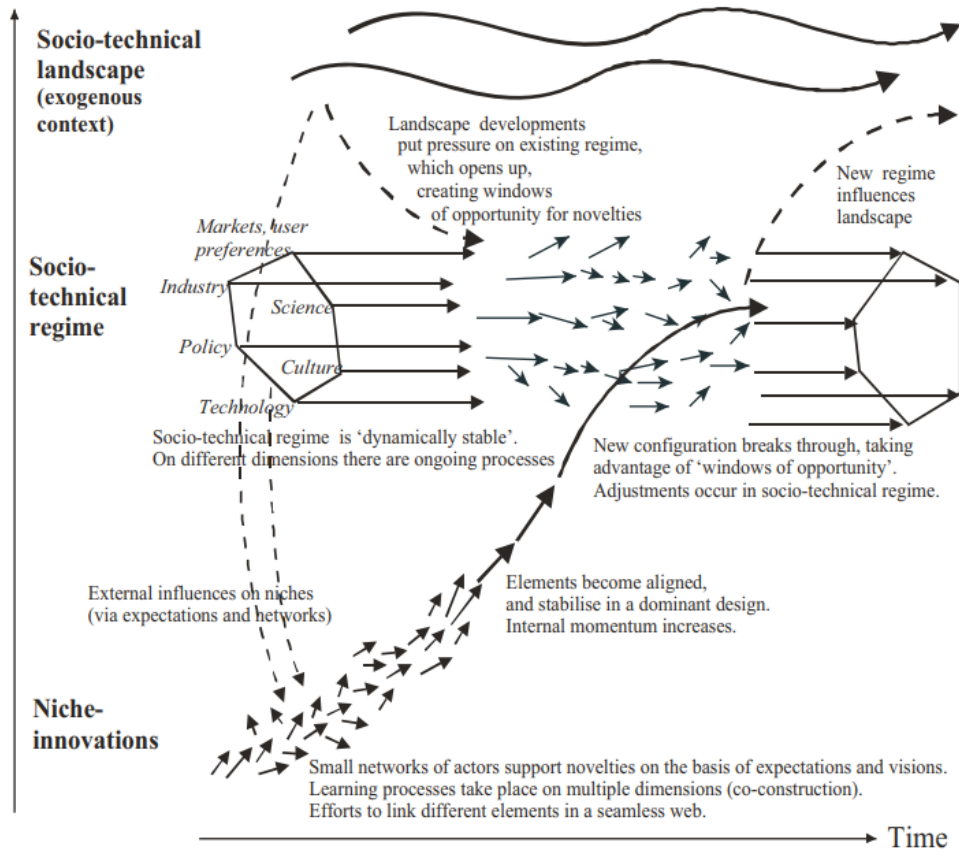


FIG. 2.1 Multi-level perspective on transitions.

Adopted from Geels (2002).

2.5 Exploring Change and Stability

Change takes place in a dynamic process of standardization and irreversibility (Rip & Kemp, 1998). The introduction of a novelty, a niche, originates at the micro level, starts to adopt and diffuse and move up to the meso and possibly even to the macro level (see fig. 2.1). Once undergone this process, the social and technical connections are hard to remove. Irreversibility increases the complexity, because technologies, e.g. windmills or solar panels, are labelled in the landscape and used linguistically by societal actors. Within this concept of novelty and irreversibility, three levels are distinguished: the micro level, which entails niche-innovations, the meso level, that includes socio-technical regimes or systems, and the macro

level, the level of the sociotechnical landscape. In transition research, the primary focus is on the meso-level of systems because at this level radical changes in societal systems can occur (Köhler, Geels, Kern, Markard & Onsogo et al., 2019). In the introduction,

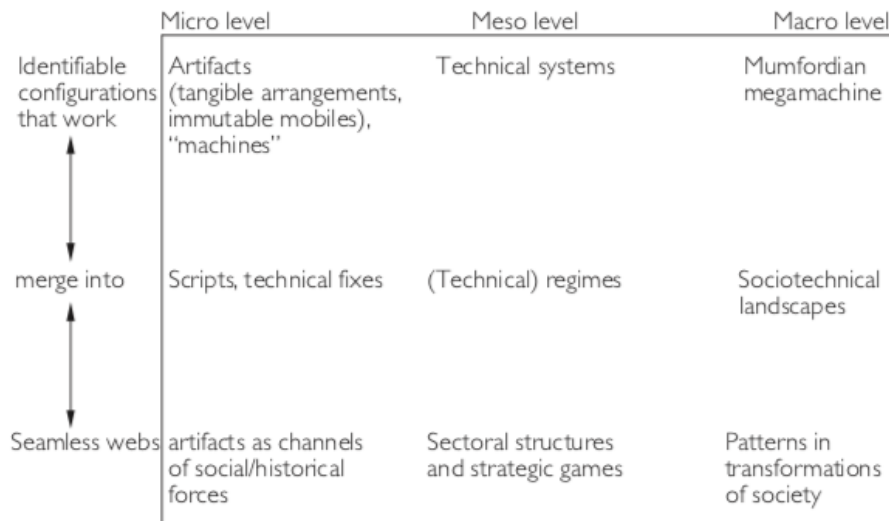


FIG. 2.2 The multilayered backdrop of novelty and irreversibility.

Adopted from Rip and Kemp (1994).

De Haan and Rotmans (2011) frame change in another way. The societal system is open to change and can suffer from tensions, stress and pressures. Tensions arise when input and output of resources are deviating from the regular practices in a societal system. Tensions can be divided in structural tensions, which refer to problems with a “physical, infrastructural, economical and legal aspect of the relation with the environment” (de Haan & Rotmans, 2011, p. 94) and cultural tensions, which refer to problems concerning “cognitive, discursive, normative, ideological aspects of that relation” (de Haan & Rotmans, 2011, p. 94). When a system is suffering from stress another dynamic arises, namely one in which the regime is internally inconsistent in meeting the societal needs the dominant way. Stress occurs when the structures and cultures in a given function of a system do not match. Pressures occur when alternative functioning of the regime becomes more forefront and start to compete with the dominant regime (de Haan & Rotmans, 2011). The three conditions are necessary for transitional change. The nature of this change occurs in relation to patterns. These patterns can explain how a constellation becomes more dominant either from within or outside of the system. In the former case, such a pattern is called empowerment. In the latter

case the new constellation becomes a new alternative for the functioning of the regime, which is called reconstellation. Yet another type of pattern is one called adaptation, in which the regime tries to adapt to its functioning in order to meet societal needs (de Haan & Rotmans, 2011). These three patterns are constituents in explaining any transition story and are used to make a tentative exploration of a transition pathway in the healthcare system.

2.5.1 Change and Stability

As mentioned before, the MLP was used as context for the discourse analysis. The micro, meso and macro level of the perspective can be connected to the structure and agency debate of section 2.1, in the sense that there is a continual process of interaction between the levels and likewise, between structure and agency. Niches developing on the micro level are, to a certain extent, related to agency, as they unfold from actions. Correspondingly, the sociotechnical landscape, or the macro level, is, to a certain extent, related to structures. Moreover, change and stability is a core issue in research on transitions (Köhler, Geels, Kern, Markard & Onsogo et al., 2019). A continuous motion between green practices and deeply rooted unsustainable fossil fuel practices is presenting itself in the healthcare sector. In order to understand these motions, it is important to explore these (un)sustainable practices and know how interactions between them evolve in a pattern of change and stability. According to Rip and Kemp (1994) the activities of organizations are important in explaining the dynamics of change.

2.6 Cultural Theory

In order to shape and categorize the data in this research CT is used. The origin of CT lies in anthropological research in which groups or societies are the unit of analysis (Steg & Sievers, 2000). This point of departure can be linked to the multi-level perspective in the sense that the micro, meso and macro level – or niches, sociotechnical regime and sociotechnical landscape – are in resemblance to groups or societies. Moreover, CT is a fruitful addition to the theory of discourse as explained by Hajer (2006), in the sense that it provides a framework to categorize different realities that are shaped through language (Hajer, 2006). CT consists of three intertwined domains: “(a) the form of social relationships people maintain; (b) cultural biases such as shared values and beliefs including views on human nature, views on society, risk perceptions, and so-called myths of nature, which especially refer to biases toward environmental risks; and (c) preferred behavioural strategies

(Steg & Sievers, 2000, p. 251). The three domains are interconnected and are all included in the analysis.

In CT four different perceptions or rationalities are distinguished: fatalist, egalitarian, hierarchist and individualist. The fatalist perception is not frequent in occurrence and therefore is left out of this research. The other three rationalities are summarized in table 2.1. According to Steg and Sievers, 2000, p. 252) “cultural biases are correlated with environmental consciousness and environmental concern”, wherefore the three rationalities can help to set out different discourses on sustainability in the healthcare system. CT is used in this research because it offers a framework for the discourse analysis that helps in answering the research questions. Other typologies, e.g. deep ecology versus ecological modernisation, would have offered a relevant framework as well. However, CT was chosen because of the typology of five different aspects: view on nature, view on resources, environmental risk perception, perspective on time, needs and management strategy. These aspects allowed the discourse analysis to be more thorough and in depth in the sense that these aspects might have been overlooked if it weren’t for these categories. Moreover, the distinction in the individualist, hierarchist and egalitarian perspective seems to comprise all perspectives that exist in society.

	Individualist Nature Benign	Hierarchist Nature Perverse	Egalitarian Nature Ephemeral
View on nature	Stable equilibrium	Unstable equilibrium	Precarious balance
View on resources	Abundant and uncontrollable	Scarce but controllable	Depleting, uncontrollable
Environmental risk perception	Risk brings about opportunities	Acceptable risk, experts determine	Risk aversion
Perspective on time	Short term	Combination of short and long term	Very long term
Needs	Uncontrollable	Uncontrollable	Controllable
Management strategy	Market system, cope	Government, regulation and control	Foster equality of outcomes for present and future generations

Table 2.1: Three institutional culture types. Adapted from Steg and Sievers (2000)

The individualist institutional culture type holds the belief that nature is a resilient system and will always bounce back to the global equilibrium (Steg & Sievers, 2000). As resources are uncontrollable, they are considered to be of abundance; supporters of the type are opposed to collective control. New technologies bring about opportunities to deal with environmental risks, wherefore behavioural change is unnecessary. The management strategy they adhere to is market force, as opposed to regulations by the government. The hierarchist type holds the belief that nature holds an equilibrium, but only up to the point to which people maintain the boundaries of nature as set by experts. A society should be careful with resources and set limits, as resources are considered to be scarce. Risks are accepted to the point that experts determine them to be. The management strategy is government regulation and control of resources, as opposed to control of needs. The egalitarian type holds the belief that nature is in precarious balance in which resources are depleting. In contrast to the hierarchist type, needs nor resources can be controlled. Therefore, and because risks are uncertain, risks should be averred as much as possible. However, people can strive to diminish their needs; this entails a radical behavioural and societal change. The management strategy that belongs to this type is one that strives to maintain the outcomes for present as well as future generations (Steg & Sievers, 2000). Within the theory of Steg & Sievers (2000) it was mentioned that in order to maintain these outcomes, all people have the potency to diminish their needs. In one way, this is in correspondence to the concept of civil society, as it is a bottom up initiative in which people take responsibility for their behaviour. Therefore, any management strategy that helps to diminish needs is one that is adhered in the egalitarian perspective.

2.7 Conceptual Framework

When using discourse analysis, it is important to connect it to its theoretical and methodological foundations (Jørgensen & Philips, 2002). In this conceptual framework, the key factors, variables and the presumed interrelationships among them are graphically explained (Miles & Huberman, 1994). To frame the different levels of analysis – the micro, meso and macro level –, the context within which the analysis took place was based on the MLP as created by de Haan and Geels (2018). The interpretation of these levels in relation to

this research are explained in 2.4.1. The building blocks of the conceptual framework were derived from CT and the method of discourse analysis of Hajer (2006). Concepts in the conceptual framework that originate from CT are three institutional types individualist, hierarchist and egalitarian. The concepts metaphors, narratives and story lines originate from the theory on discourse analysis by Hajer (2006). Fig. 2.3 shows a visual representation of the conceptual framework.

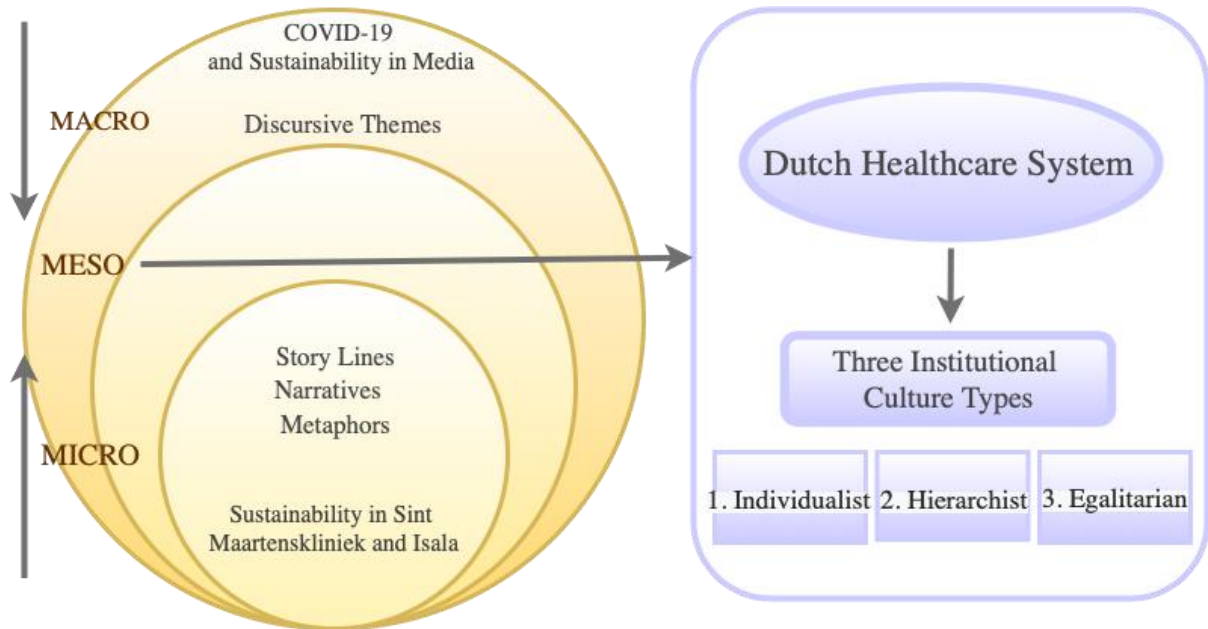


Fig. 2.3 Conceptual framework.

Sub questions that follow from this conceptual framework are:

1. How is the sociotechnical landscape of sustainability and COVID-19 shaped in the Dutch media?
2. How do metaphors, story line and narrative on sustainability and COVID-19, derived from insight gained from experts, shape the sociotechnical regime?
3. What is the interpretation of the individualist, hierarchist and egalitarian discourse on sustainability in the Sint Maartenskliniek and Isala in times of the COVID-19 crisis?

The first sub question sets out a more generic view of the effect of COVID-19 on sustainability in society or the sociotechnical landscape or macro level. The analysis of 18 news articles sketched out a first tentative answer to the interpretations of the sustainability

discourses in society with regards COVID-19. This question is a relevant step in answering the main question because it gave insight in societal structures on sustainability and COVID-19 and helped to set out the first tentative discursive positions. The second sub question shifts perspective to the Dutch healthcare system and is answered at the sociotechnical regime or meso level. The analysis of 3 helicopter interviews provided with a first interpretation of the individualist, egalitarian and hierarchist discourse in the Dutch healthcare system and the metaphors, story line and narrative that it is shaped by. The third sub question is the final step in answering the main question, and is added sketched out the interpretation of the individualist, hierarchist and egalitarian discourse in the cases of the Sint Maartenskliniek and Isala. The scope of this question is the niche or micro level and provided detailed insight in the discursive perspectives in specific cases. The steps in which these questions are answered is explained extensively in the next chapter.

3. Methodology

The purpose of this research is of exploratory nature and is based on inductive as well as deductive reasoning. Databases that have been consulted in this research are Google Scholar and the library of the Radboud University. Moreover, for the media content analysis, the online news service Lexis-Nexis was used. It should be noted that a service like this one provided a narrow sample of only the major newspapers in the Netherlands (Macnamara, 2005)

3.1 Epistemology and Ontology

The choice of a specific type of discourse analysis encloses certain ontological and epistemological implications (Jørgensen & Philips, 2002). These basic methodological choices define the entire research. Guba and Lincoln (1994) set out a typology of four different paradigms or “a set of basic beliefs (or metaphysics) that deals with ultimates or first principles. It represents a worldview that defines, for its holder, the nature of the “world”” (Guba & Lincoln, 1994, p. 107). The research paradigm from which this research is conducted is constructivism (Guba & Lincoln, 1994), which is an ontological position that asserts that social phenomena and the meaning thereof are constantly being formed and reformed by social actors (Bryman, 2008). Discourse analysis is the most widely used approach within constructivism (Jørgensen & Phillips, 2002). Moreover, constructivism fits the approach of discourse analysis because such an approach requires that the respondents

contribution as well as the investigators contribution to the conversation are both taken into account, in the same way that a constructivist ontology incorporates the inevitability of the influence of the interviewer *and* the interviewee on the outcome of the research (Willig, 2014). In short, the constructivist approach considers reality, the object of the study, to be dependent on the observer, the subject of the study (Guba and Lincoln, 1994) . The epistemological position of research conducted from the method of discourse analysis is constructivism (Esin, Fathi & Squire, 2014), meaning that knowledge is considered to be transactional and subjectivist (Guba & Lincoln, 1994). This implies that the distinction between ontology and epistemology disappears, because the relation between the investigator and the respondents and the data that is produced is believed to be interlinked. Therefore, the methodology of constructivism is hermeneutical and dialectical (Guba & Lincoln, 1994). The instrument that is used to gather data is the interlinkage between investigator and respondents.

3.2 Research Strategy and Research Design

The research design is a case study. A case study design fits the research questions because of the focus on contemporary events and the form of the research question that is aimed at answering a ‘how’ question. The case study consists of a multiple- case research design, including the hospitals the SMK and Isala. The SMK and Isala can both be considered a representative, typical case (Yin, 2003) or an exemplifying case (Bryman, 2008), because they are examples of two hospitals that are representative for hospitals within the Dutch healthcare system. A case study design comes with its advantages and disadvantages. According to Harrison et al. (2017). One disadvantage of a case study is its extensiveness and result of massive, unreadable documents. Moreover, data collection is not routinized (Yin, 2003). Nevertheless, case study research offers techniques for distinctive situations such as sustainability in the healthcare system. The beauty of a case study design rests in the role of the interviewer (Yin, 2003).

In a non-COVID-19 situation, the sample of this research would have consisted of a number of respondents in one specific healthcare institution, e.g. the case study in the Sint Maartenskliniek and Isala. Due to COVID-19, it was impossible to find enough respondents within this hospital. Therefore, the scope of the research is widened to the healthcare system in the Netherlands as a whole. As this system is quite broad, a media analysis is combined with interviews with a consultancy agency and the NVZ and interviews with two hospitals.

This selection of respondents brought about new opportunities of creating an understanding at the micro meso and macro level and enabled to sketch out a more general discursive review of sustainability in the healthcare system. The way these respondents were selected is explained in more detail in section 3.3.

3.3 Research Method, Data Collection and Data Analysis

Multiple methods are used to collect and analyse data, namely the qualitative methods of media analysis and discourse analysis. These multiple approaches provide for a more comprehensive view on the sociotechnical landscape, sociotechnical regime and niches in healthcare. The media analysis is used to....

The method of discourse analysis is used to shed light on the narrativity of and meaning making in the transition towards a sustainable healthcare system. Both content analysis and discourse analysis involve the generation of categories which can be coded (Potter & Wetherell, 1987). The ADA approach by Hajer (2006) is used to structure the method of this research. This approach consists of the following ten steps:

1. Desk research
2. Helicopter interviews
3. Document analysis
4. Interviews with key players
5. Sites of argumentation
6. Analyse for positioning effects
7. Identification of key incidents
8. Analysis of practices in particular cases of argumentation
9. Interpretation
10. Second visit to key actors

According to these steps, the methodology is structured as follows. Step 1 consists of a media analysis and is connected to the first sub question. Step 2 consists of an analysis of a total of 3 interviews with experts in the field and is connected to the second sub question. Step 3 consists of a first employment of metaphors, story lines and narrative and is merged into step 2; together they were used in sub question two. Step 4 consists of an analysis of a total of 9 interviews with actors in the SMK and Isala and is connected to sub question three. Step 7 consists of an identification of the key incident of COVID-19, which is connected to the third sub question and lead to an understanding of the discursive dynamics in the two

cases of the SMK and Isala. Step 9 is the interpretation and was included in answering the third sub question. An account of discursive structures within the discussion on sustainability, COVID-19 and the healthcare system was explored. Step 6, 8 and 10 were left out of this research. Some of these steps were left out because of lacking data, such as step 5 in which debates, panel discussions or conferences are to be analysed. In addition, step 6 was left out because this research is not about the influence of one actor on another in taking up particular roles. Step 8 was left out because this step relates to practices in specific and is therefore irrelevant in answering the main question. Step 10 was left out because a second visit to key actors was impossible in the timespan of this research. Such a second visit would have been useful after a year or so, to see whether the discursive positions have been changed.

3.3.1 Media Content Analysis

The first phase, consisting of a discourse analysis of 18 news articles (see table 6.3), entailed a manifest analysis, meaning that the analysis was very closely tied to the text and the visible and obvious elements in the text were described (Macnamara, 2005). This first step, step 1 of the discourse analysis of Hajer, is implemented to make a first chronology and to set out a first reading of COVID-19 in relation to sustainability (Hajer, 2006). The media content analysis was sampled at the start of COVID-19. The 18 selected news articles were published in daily newspapers between 19-03-2020 and 16-06-2020. News articles were selected on their content on sustainability as well as COVID-19. Search words that have been used in the Nexis database were in Dutch because the news articles are written in Dutch. The translations of these words were: sustainability and corona. A total of 18 articles have been included in the analysis because a state of saturation had been achieved, meaning that no new information on the topic was found after this number had been reached.

A media content analysis is eminently suitable for this because not much other data was available on the effect of COVID-19 on sustainability. The news articles were analysed using the qualitative data analysis software ATLAS-ti; this analysis was both inductive as well as deductive. It is inductive in the sense that discursive themes were derived through observation of the empirical world (van Thiel, 2014), and deductive in the sense that relevant themes were emerging from the data during the analysis process. This approach was used to map out the broader debate on COVID-19 and sustainability, and to find out how the two could be related to each other.

3.3.2 Helicopter Interviews

The consultancy agency Lentekracht was contacted by the Sint Maartenskliniek to help it become more sustainable. In a similar manner, the consultancy agency Triocare was contacted by Isala. For the selection of the interviews, both consultancy agencies were contacted by the researcher. However, Triocare did not respond to emails or phone calls. Therefore, only Lentekracht is included in the sample. These respondents were chosen because of their knowledge and experience on creating sustainable organisations. Moreover, the NVZ and Zorgverzekeraars Nederland (ZN) were contacted for conducting interviews. The NVZ responded to the invite, ZN did not. These respondents were chosen because of their clear overview of the positioning of the Dutch healthcare within society.

On the basis of the themes empirically collected in the media analysis, the interview guide for the semi-structured interviews with the selected experts was created. The interviews were semi-structured, meaning that a series of questions in a general form but the sequence of these questions was interchangeable (Bryman, 2008). When a significant theme was addressed during the interviews, follow-up questions that were not in the interview guide were asked. This type of interview guide was the most beneficial in gathering the most data for answering the research questions. The helicopter interviews were conducted in the month of July. Respondents of the interviews included two interviewees from consultancy agencies and one interviewee from the NVZ. The analysis of the interviews was both deductive as well as inductive: it was inductive in the sense that codes were derived from the data itself, it was deductive in the sense that concepts from the theory of Hajer (2006) were employed. The data was analysed using the software program ATLAS-ti. Discourses as set out by CT were used to set out a first generic overview of employment of metaphors, story lines and narratives on sustainability in the healthcare system, to later on support the positioning of statements gathered from the interviews with key players into the three discourses. The helicopter interviews provided with a first attempt of structuring discourses, step 2 and step 3 of the discourse analysis framework of Hajer (2006) were merged into one step.

3.3.3 Interviews with Key Players

In this part, nine semi-structured interviews with employees of the hospitals the Sint Maartenskliniek and Isala were conducted. This type of interview guide was most relevant in answering the research questions. The interviews were conducted with employees of the SMK and Isala. The SMK was selected because this hospital has only taken up sustainability

as an issue of concern quite recently, namely in the past one or two year. Isala was selected as a case because it is an example of a best practice; sustainability has been on the agenda for quite some time now. Nevertheless, other hospitals would have fit the sample as well. Moreover, the selection of two cases instead of one provided with the possibility to see whether there are differences regarding COVID-19. The respondents in the two hospitals were not selected because of their involvement in or interest for sustainability, but because the departments they are working at are indirectly and directly associated with sustainability. Within the two hospitals, employees from the same departments have been selected, namely the departments of purchase, facility, infection prevention and the department of pharmacy in only the SMK. The department of purchase is directly involved in the purchasing of (un)sustainable materials, the department of facility is involved in the daily optimisation of the ins and outs of users of the building, the department of infection prevention is involved in COVID-19 and the employee of the department of pharmacy is one of the main drivers of sustainability in the SMK. Therefore these departments are relevant in answering the research questions. The aim of this section was to set out an exploration of the individualist, hierarchist and egalitarian perspective in the SMK and Isala. The interviews were semi-structured and conducted in the month July. This entailed a latent analysis, meaning that the hidden meaning of the transcripts of the interviews was sought (Bengtsson, 2016). The nine semi-structured interviews were analysed with the use of the software ATLAS-ti. The discourses as set out by CT were used as a framework within which the statements are placed.

3.4 Identification of Key Incidents and Interpretation of Discursive Structures

In this part of the analysis, step 7 and 9 of the ADA by Hajer (2006) are explored. This step is an intermediate step that is not connected to one of the sub questions, but an exploration of the connections between the data gathered from the three parts of the analysis. The key incident COVID-19 was explored in order to find discursive structures on the meso level of the healthcare system. Moreover, in this part of the analysis the data from the cases of the SMK and Isala were connected. This step is added in the analysis in order to be able to give an answer to the main question.

3.5 Codebook

In table 3.1, fragments of the codebook are shown. Not all original codes were represented in the codebook, due to their frequency of use, merging with other codes or their irrelevance in answering the research question. Notice that all codes in the codebook of the media analysis serve as placeholder codes, meaning that they serve as organizing codes under which other codes are placed (Sagepub, n.d.). To include over a hundred codes would be too extensive, wherefore these codes have been grouped in overarching codes. The codes that are included in table 3.1 corresponded with the theoretical concepts used in the conceptual framework in fig. 2.3.

<i>Code</i>	<i>Definition of code</i>	<i>Corresponds to</i>
Acceleration	Language suggesting an acceleration of sustainability	Discursive themes
Awareness	Language suggesting an increase in awareness due to COVID-19	Discursive themes
Communication	Language suggesting communication between actors	Narratives and story line
Cooperation	Language suggesting cooperation to work more sustainably	Narratives and story line
Dependence	Language suggesting a dependence on other layers of the sociotechnical- landscape or system	Discursive themes and CT
Economy > sustainability	Language suggesting that the recovery of the economy is (much) more important than sustainability	Discursive themes and CT
Economy = sustainability	Language suggesting that the recovery of the economy and sustainability should be equally invested in	Discursive themes and CT
Revealing	Language suggesting the revelation of systemic faults in society	Discursive themes and metaphors
Thinking	Language suggesting new or expanded ways of thinking	Discursive themes and metaphors
Time span	Language suggesting a time span within which change occurs or within which one thinks about the future	CT
Transition	Language suggesting transitional change	Discursive themes, CT and discursive themes

Table 3.1: Codebook

3.6 Validity and Reliability

Within a case study design, a distinction is made between construct validity, internal validity, external validity and reliability. To guarantee construct validity, the operational measures for concepts of this research were corrected (Yin, 2003). In analysing the concept of discourse practice, it is important to consider how exactly practices were measured throughout the research (van Thiel, 2014) By employing the discourse analysis framework by Hajer (2006), all steps that have been made in this research are written out and therefore retractable. Internal validity refers to the cogency of research (van Thiel, 2014). In an exploratory case study design, a non-spurious causal relationship needs to be established (Yin, 2003). One way of doing so is by explanation building, which has been done frequently during the process of data collection. As for external validity, within a case study design the domain for generalization can be established (Yin, 2003). Research making use of a case study design is often criticized for its inability of generalizability (Mills, Harrison, Franklin & Birks, 2017). Indeed, generalisation for the entire healthcare system is impossible solely on the basis of the cases of the SMK and Isala. However, replication logic has been applied to be able to generalise within the cases. Replication is based on a rich theoretical framework (Yin, 2003). The ADA of Hajer helped to set out the steps in this research and greatly added to the replicability of this research. Moreover, the use of a multiple- case study increased the external validity because it offers more robust analytical conclusions (Yin, 2003). Reliability is concerned with the question whether the results are repeatable (Bryman, 2008). Within qualitative research, reliability is defined as “agreement between interpreters” (Gill, 2000, p. 143). In explanatory research, a high level of reliability is achieved when the explanation that is offered is most certainly the right one. All interviews have been transcribed and are traceable. The reliability of this study is the function of the accuracy and the consistency with which the variables are measured (van Thiel, 2014). As for the first aspect, the news articles were selected on the judgement of their connection to sustainability and COVID-19. Although these two topics seem to be clear, misconceptions could have been made. Moreover, all codes used throughout the process are listed in the codebook in ATLAS-ti and can be traced back to their origin. The process of coding was fairly loose and in the moment. However, this type of coding was chosen beforehand because it allowed to let the data speak instead of implying codes beforehand. The further in the analysing process, the more

structured the codes became. Therefore, the reliability differs across codes: some are more ambiguous than others (Gill, 2000).

4. Analysis

The analysis is structured according to the steps of Hajer (2006) as set out in the methodology. Section 4.1 provides a codebook of some codes and their definition and origin, that have been used throughout the coding process. Codes that turned out to be important for the analysis have been included in the codebook, codes that turned out to be less relevant during the analysis process have been left out.

4.1 COVID-19 and Sustainability in Media

In this section, the first sub question is answered: how is the sociotechnical landscape of sustainability and COVID-19 shaped in the Dutch media? The aim of this section is to sketch a first impression of discursive themes found on the macro level. The beginning of the analysis had a small set of *a priori*, deductive codes, derived from theory. Later on, more codes were created inductively, because this approach allowed the data to lead the analysis into a different direction than the original path. Generally speaking, research that is more exploratory in nature usually incorporates a large number of inductive codes (Sagepub, n.d.). A total of 110 codes were found in the news articles. During the process of axial coding, these codes were placed in the following groups: *dependence, sustainability, revealing, continuity, crisis, digitalisation, economy > sustainability, economy = sustainability, Green Deal, intrinsic motivation, thinking, timespan, working from home, transition, change, connection, acceleration and value creation*. Codes that turned out to be important for the analysis are grouped again in the following distinctions: (a) *economy = sustainability* and *economy > sustainability*, (b) *thinking, crisis* and *revealing* and (c) *connection, change* and *transition*. The categories were inductively created but can be carefully connected to the individualist and egalitarian in the sense that the code *economy = sustainability* would fall in the egalitarian discourse and *economy > sustainability* in the individualist discourse. Moreover, *thinking, revealing* and *acceleration* imply a shift in the direction from the individualist to the egalitarian discourse.

4.1.1 Economy and Sustainability

The code *economy = sustainability* refers to the idea that rebuilding the economy and sustainability efforts do not necessarily rule each other out. In this perspective, COVID-19 can be an accelerator in creating a sustainable economy. This code is the opposite of *economy > sustainability*, because this last code is filled with codes connected to statements that imply that the economy should first recover from the effects of COVID-19, and only then sustainability can return as a topic on the agenda. The debate on the relation between the economy and sustainability thus is two sided. On the one hand, some codes, e.g. *sustainable recovery* and *economy and sustainability together*, suggest a trend in which COVID-19 offers an opportunity to stir up the economy in a sustainable way. An example of this is the quotation in the article by Bijlo (2020a), in which the author argued that:

“A number of countries have already opted to boost the economy sustainably, such as Germany. The European Commission maintains the Green Deal as a guideline for expenditure. Major institutions such as the UN environmental arm and the IMF are also urging not to set aside the next major crisis, climate change, now” (Bijlo, 2020a).

Codes connected to this quote are *economy = sustainability*, *sustainable recovery* *economy* and *pushing through sustainability*. Evidently, it is sometimes believed that sustainable investments in the economy can help to build a resilient economy for future crises to come. On the other hand, it was found in the news articles that there is a trend in society containing the belief that the focus should first be on the recovery of the economy; sustainability is something that can be thought of later. An example of this is given in the article written by Bijlo (2020b) in which the author argued that:

“The plastic makers are not the only ones who think they can take advantage of the corona crisis and beg, with pathetic faces, for postponement or cancellation of an environmental measure. For example, an international airline lobby has already started to break open the agreements on reducing CO2 emissions. First survive, then think about the climate again, is the reasoning” (Bijlo, 2020b).

Connected codes to this perspective are *recovery first* and *postponement sustainability*. Overall, there is a dichotomy between *economy > sustainability* and *economy = sustainability* as it comes to how to overcome the effects of the COVID-19 crisis.

4.1.2 The Effect of COVID-19 on Thinking

The connection between the codes *thinking*, *crisis* and *revealing* might seem incoherent at first, however, these three groups are taken together in one network because often, when a code was present in one code, it was also found in the other two. The argumentative structure for this is that the crisis has resulted in people thinking more about our current societal and economic system, and has brought environmental- and societal issues to the surface. It has become clear that crises can reveal the underlying errors in the system and create awareness on these issues. This connection between the codes *revealing* and *crisis* was visible in the following article published in het Financieele Dagblad:

“If this crisis shows anything, it is the structural inequalities and subordination of human lives and the environment when it comes to money. (...) The corona crisis goes far beyond the consequences for public health. This crisis strengthens existing power structures and the associated inequality. Whether you come out of this crisis unharmed depends on your socio-economic position, gender, origin and simply on the place where you were born and whether you have access to politics. The same goes for that other major crisis, the climate crisis. We must therefore emphasize the intertwining of crises when discussing solutions” (Overheden misbruiken crisis”, 2020).

Codes connected to this quote are *systemic fault*, *structural inequality* and *power structures*. As became clear from the statement above, in many countries governments take the corona crisis as a chance to push through legislation that causes harm to people, nature and the environment. The corona crisis reinforces existing power structures and inequality. The relation between *crisis*, *awareness* and the revealing of *systemic faults* in society is conceivable. Ballegeer and Rotteveel (2020) wrote about the true face of a company:

“Are companies only now showing their true face? Or could we have seen something of that in their sustainability scores before the crisis? The latter, says Timmer. ‘What we see now is the result of their policy in recent years, for example with regard to employees. You can judge this by asking simple questions. Are trade unions allowed within the company? Is there a high staff turnover?’” (Ballegeer & Rotteveel, 2020).

Connected codes are *revealing*, *crisis*, *policy* and *systemic faults*. It is not believed to be the case that companies are only now showing their true face, instead, COVID-19 put a spotlight on these kind of faults in society.

4.1.3 COVID-19 and Change

The codes *transition*, *acceleration*, *change* and *connection* are put together because all these codes are in some way or another connected to change and stability. Furthermore, the frequency of occurrence of the code *change*, 69, is remarkable. This probably has to do

with the disruptiveness of COVID-19. For instance, in the NRC Handelsblad the following was published:

“How are the strategies of big companies changing due to the pandemic? Top advisers from McKinsey, Bain and Deloitte are already seeing enormous shifts in the boardrooms (...) Directors say: "I spent years making changes that I could now implement in one or two weeks" (van Noort, 2020).

Codes connected to this quote are *acceleration* and *change*. It is with no doubt that COVID-19 has an influence on the strategies of companies. Nevertheless, according to an article published in Trouw, in which Jan Rotmans is quoted, it takes more than one pandemic to create a transition in society:

“We have lost confidence in each other, in the systems, in CEOs, in the government. You would prefer to bring about change from positive energy and inspiration, but in our behaviour we are hard-learning and a reset is needed. That's why I see a crisis as a blessing in disguise. It is part of a larger transition. It is not that one crisis changes everything, but every crisis helps a little. With every crisis, some of the people start to think differently - at most 5 to 10 percent. If enough people reach that stage, about 25 percent is enough, we will reach a tipping point. This corona crisis accelerates that process ” (Lips, 2020).

Codes that are connected to this quote are *acceleration*, *reset*, *transition* and *thinking*. The connection between *thinking* and *acceleration* is remarkable in this quotation, as the COVID-19 crisis is believed to alter the way a certain percentage of the population thinks. The crisis then is an acceleration of structural changes in society.

4.1.4 Sketch of Discursive Positions

Overall, the reaction of companies to COVID-19 with regards to sustainability is two sided: on the one hand, companies try to use the crisis as an excuse to bypass environmental legislations and agreements; on the other hand, companies try to plea for a sustainable recovery of the economy after the situation has calmed down a bit. The first appearance is most represented in the individualist discourse because COVID-19 is used as an excuse. IN this discourse, evidently, sustainability is something that is not considered to be a priority; the short term of limiting the negative of effects of COVID-19 is only taken into account. The market strategy that is employed is to cope as best as we can within the market system. The second discourse, in which COVID-19 is used as a plea for sustainable recovery, fits best into the egalitarian discourse. It was made clear from the articles that COVID-19 caused renewed thinking about time span, the climate crisis, and our current system. Moreover, the crisis has helped to reveal the true face of companies. This could help to create awareness in systemic faults in society and accelerate sustainability. Moreover, as it comes to change, the crisis has in some ways helped to accelerate change, such as video calling and working from home.

Overall, the egalitarian perspective has more connections to other codes and connections between codes, meaning that the plea for a sustainable recovery seems to predominate. However, this does not say anything about the actual institutionalisation of the egalitarian discourse in reality.

4.2 Helicopter Interviews

This part of the analysis consists of 3 semi-structured interviews with experts in the field and is aimed at answering the second sub question: How do metaphors, story line and narrative on sustainability and COVID-19, derived from insight gained from experts, shape the sociotechnical regime? The aim of this part of the analysis is to propose a first structure of the metaphors, narratives and story line (Hajer, 2006) that can be found on the level of the sociotechnical landscape.

4.2.1 Metaphors

The aim of this section is to create a first understanding of dynamics in the sociotechnical regime, i.e. the healthcare system by the deposition of two metaphors, *sustainability* and *COVID-19*. These metaphors were chosen because of two reasons. Firstly, the words were overarching themes in all three interviews. Secondly, both metaphors are elements in the research question; it is helpful to analyse what they could stand for. The characterisation of metaphors is an intermediate step to deter the refute the false dichotomy between detail versus relevance (Hajer, 2006). A metaphor can serve as an emblematic issue, in which the metaphor is an in detail approach that stands for bigger relevant issues in society. The inclusion of metaphors in this analysis is aimed at revealing these bigger societal issues.

Sustainability: Trick or Change?

As for the first metaphor, sustainability, codes that have been connected to it are *people planet profit*, *new economy*, *new world*, *continuation of company*, *connection* and *cooperation*. Consultant 2 referred to the word as being a “*containerbegrip*”. This implies that defining the word can be difficult, and from the statements in the interviews, respondents evidently have different perceptions as it comes to the meaning of the word that can be positioned in the different CT perspectives. Lately, sustainability has become somewhat of a *fashion statement*, which is represented in the following quote by consultant 2:

“Look if you are really intrinsically motivated to do something with circularity or sustainability and don't just see it as a trick, oh yes, I'll just throw a few solar panels on the roof and you're done. Look at organizations that very much, I say it a little negatively, are stuck in the old, because the whole of sustainable or circularity is still quite new. It has not all been fully developed yet, it is still very layered, you can tackle many parts, many things are also mutually dependent on each other in the chain. So that is quite complex. There are many things to do, you can see that at the Maartenskliniek. You just have to start somewhere ” (Consultant 2, personal communication, 02-07-2020).

The codes *sustainability*, *old world*, and *complexity* are connected to this statement. Sustainability can become a trick in which organisations claim to be sustainable by simply putting solar panels on the roof instead of considering the many layers that come with the implementation of sustainability. In a similar line of thinking, consultant 1 mentioned that all organizations should implement sustainability as core part of their business model:

“Yes, I do think it depends a bit on how you define it whether you can say it that way to each other. It is then called the sustainability paragraph, but I certainly think with social institutions, if you take it more broadly, sustainability is a core part. And that's what I think of companies too. Because companies can say it is economically oriented and profit and the like, but I also think that is part of sustainability because otherwise simply no company will exist (...). I also think that every decision should be made within the framework of people planet profit, and to choose the highest balance scores within this framework. If you do so, I think you are basically working sustainably” (Consultant 1, personal communication, 02-07-2020).

Apparently, sustainability is not considered to be something an organization can simply add to or stick on already existing structures, rather, it can be symbolic for an entire transition in the operationalization and structuration of organizations and society as a whole. The interpretation of this is that often, the visible and tangible aspects of sustainability are taken into account. What people really refer to when they use the word sustainability often is unclear and multi interpretable. Interestingly, one of the most recurring themes in the data was *waste*. This code was connected to statements 43 times in total. Waste in turn is a metaphor for sustainability. However, what became clear from the interviews, sustainability is not merely referring to separating waste or putting solar panels on the roof, but also very much synonym for creating structures that enhance the continuation of organisations, and perhaps, even to creating a shift towards a new world. Nevertheless, according to consultant 1, this understanding has not been integrated in the sociotechnical regime, and the assumption of mutual understanding of the word seems to be false.

COVID-19: Societal Boomerang?

A second metaphor that stands out in the data is COVID-19. Codes that have been connected to it are *boomerang*, *dependence*, *bioindustry* and *environment*. One of the respondents of the consultancy agencies mentioned the production chains.

“So for me it's a whole chain, a whole string and that has made corona visible. I was already aware of that, but corona has just put a big spotlight on it now. So I see that it is precisely that dependence on each other, which on the one hand can be very beautiful, that you therefore make and distribute things together and you name it. But that has all gone wrong and we have let it go at the expense of other things very much. And now we just get that back; it's a kind of boomerang ”(Consultant 2, personal communication, 02-07-2020).

Codes that were connected to this quotation are *boomerang*, *awareness* and *dependence*. In this quotation, COVID-19 is a synonym – or a boomerang – for the faults in our current system; a spotlight deriving all attention to the faults in our system or a creator of more awareness. According to this consultant 1, an increase in awareness has been created due to COVID-19, namely by the revelation of the error in society of dependence on the production of materials from other countries. Moreover, COVID-19 can also thicken the already existing bipartite debate on sustainability in organizations:

“Because I think you always have companies that somehow feel or have felt that they needed to do something with sustainability, because that's the future, that's better for me for whatever reason. That may now be reinforced because they don't get their materials from China anymore. That reinforces. And on the other hand, you also have the companies or organizations that follow the laws and regulations; if my customer asks about it, I can take a look at sustainability. They may now think survival is more than sustainable. I think they feel that urgency less now. I do not feel that there is anything new, but it is more of a reinforcement of, and this dichotomy became even more apparent ”(Consultant 1, personal communication, 02-07-2020).

Connected codes were *reinforcement*, *acceleration* and *dichotomy*. The increase in dispersion of the view on sustainability is explained in more detail in section 4.5 about the interpretation of the discursive positions in the healthcare system.

4.2.2 Narratives and Story Lines

The aim of creating narratives is to sketch out a first interpretation of the healthcare system as situated in the sociotechnical landscape. Statements often have the form of narratives (Hajer, 2006). In this analysis, narratives and story lines are composed of one paragraph, because a story line is a summary of complex narratives (Hajer, 2006). A narrative that has been formed in the helicopter interviews is the narrative about whether COVID-19 is an enabler or barrier for sustainability in the healthcare system, and a story line that has been formed is about change and stability in the healthcare system.

COVID-19: Enabler or Barrier for a Sustainable Healthcare System?

One element of the sub question consists of the effect of COVID-19 on sustainability in the healthcare system. It was found that COVID-19 could either be an enabler or a barrier in creating sustainability; both codes were applied just as much, namely 22 times in total. Connected codes to COVID-19 barrier are *less money, survival goes first, gap between rich and poor* and *less urgency*, connected codes to COVID-19 enabler are *laws and regulations acceleration, dependence, video calling* and *less mobility*. Obviously there are the more visible sustainable changes, such as working from home or less traveling, but also the more complex changes such as the widening of the gap between rich and poor. On this latter theme, consultant 1 argued that:

“(…) because I do expect, you can now see it in the increase in unemployment, that people with temporary contracts and people who are slightly less socio-economically in order lose their jobs more quickly. The people who have it right will keep running, so there will be a split. I expect that the gap between rich and poor will widen. That will also be the case in organizations that can look beyond a crisis and organizations that get stuck in that crisis; there will also be a gap. I think the dichotomy will increase and I find that very unfortunate. I also think that this is a major obstacle ”(Consultant 1, personal communication, 02-07-2020).

Without financial resources, it is difficult to invest in sustainable measurements. Money that could have been invested in sustainability now is, due to the effects of COVID-19, invested in saving the economy. People that lost or are losing their job because of the crisis have less financial resources to invest in sustainability. This is in line with the following quote of the respondent from the NVZ:

“There is a lot of difference between hospitals. This can sometimes be due to the board, which finds it very important and which also plays a role, but that is also the CO2 reduction, that there are really considerable investment costs involved. That is something in the foreground, the return on investment. Sometimes it is quite difficult because financing is difficult in hospitals. Banks are of course increasingly involved, but if you nevertheless have to take out financing to do something that will ultimately make funding difficult, then we will also look again at the ministries and in particular at finance and economic affairs and climate to have that awareness that we want to, but that it should also be possible financially. So that sometimes is an obstacle. And whether it is always justified or whether it should be experienced more may be undecided. It makes a difference per issue ”(Consultant 1, personal communication, 02-07-2020).

Change and stability in the healthcare system

The story line on change and stability in the healthcare system is a building block for the analysis of the interviews with key players in section 4.2.3. A story has a beginning, middle and an end. A story line “combines elements of the various discourses and into a more

or less coherent whole, thus concealing the discursive complexity” (Hajer, 2006, p. 70). The story line of change in the healthcare system starts with an increase in thinking. Selective coding that was applied to the code *thinking* led to the understanding that thinking is associated with the development of knowledge. Unsustainable practices become visible and people want to take action to change these practices. In order to create a perspective on what action needs to be taken, knowledge on what exactly is the most sustainable option and how to implement this option has to be available. The code *action perspective* was a recurring code in the interview of the respondent of the NVZ:

“So that is what is most needed,: an action perspective. A lot of healthcare institutions indicate that they really want to start and then run into certain issues, laws and regulations or problems in the organisation or lacking knowledge. They ask:” we want to start, but what are the best things that I can start with?””(NVZ, personal communication, 07-07-2020).

In order to create knowledge on this perspective on action, cooperation and communication between different actors must be present. At this moment in time, RIVM, Intrakoop, VWZ and Milieu Platform Zorg are working on this information. The Expertisecentrum Verduurzaming Zorg has been established to fulfil this task. Collaborative knowledge creation thus is developing. A first tentative connection to the hierarchist perspective can be made here, as experts are creating knowledge in order for the healthcare system to know how to become more sustainable. The next chapter of the story is about connection. If enough knowledge on sustainability has been gathered, a connection between all layers in the healthcare system as well as all layers in society is needed to distribute this knowledge. The respondent of the NVZ puts it this way:

“I think another challenge that we are also working on is how do you ensure that the connection of this subject in the hospital grows even bigger. Because you see that nurses, that there are things that may be thrown away, and you want something with that, but then you actually need the purchasing department. Purchasing wants that too, but then you may have to make choices for products that are slightly more expensive or that may not be compatible at the moment, of which the medical specialist says yes, but I would like brand x while you know that brand a is much better for an environmental point of view, but then you get those discussions and I think that is something that is increasingly gaining attention ”(NVZ, personal communication, 07-07-2020). (NVZ, personal communication, 07-07-2020).

This knowledge is created and shared in collaboration through interactions in a network consisting of various departments within a hospital. To take the matter one step further, consultant 1 argued that sustainability is an interplay within all layers of society:

“I think it is a combination. I see it more as an ecosystem, network-like thing. Because next to the government you have the companies. You have the social institutions and of course you also have the residents and consumers. I think you should do that together and start prodding and poking and twisting different things. That together you achieve something of which you can really shape something critical mass. And you can't go too far ahead because then you won't get the people on board ” (Consultant 1, personal communication, 02-07-2020).

Thus, sustainability is perceived to be not so much a matter of bottom-up or top-down initiatives, but rather an interplay of various actors within one hospital, the collaboration between hospitals through learning and setting examples of good practices, and the healthcare system within its societal context. This is in line with the egalitarian perspective, in which everyone is believed has a say in the management strategy, not only the market or state. In the statement of consultant 1 mentioned above, it is argued that one has to take small steps in order to take people along the path of sustainability.

4.2.4 Sketch of Discursive Positions

The metaphors, story line and narrative can be connected to the individualist, hierarchist and egalitarian discourse in the following way. What became clear, is that the transition pathway to sustainable change in the healthcare system as believed by experts cannot originate from an individualist discourse. Moreover, experts are quite optimistic about the shift towards a sustainable healthcare and see gradual implementation of ideas as the way to go. The respondent from the NVZ was quite optimistic in what is already happening sustainability wise in Dutch hospitals. She argued that hospitals want to become more sustainable, but often lack an action perspective on how to do so. The movement that is visible in the discursive positions is a shift from the individualist perspective to an egalitarian perspective regarding the management strategy that is considered to be most suitable in creating sustainability. Cooperation, knowledge creation and communication can bring about collaboration between all stakeholders, which in turn can lead to an acceleration of the sustainability transition. Experts do not disregard the importance of the financial aspect and market in the transition but advice to include it as component in a sustainable business case. The discursive position that was mostly visible in the helicopter interviews is the hierarchist discourse in which risks are acceptable within the boundaries which experts have set, based on knowledge created on how to become more sustainable.

4.3 Interviews with Key Players

This part of the analysis consists of nine semi-structured interviews with respondents from the hospitals the SMK and Isala and is about the third sub question: What is the discourse- structuration and institutionalisation (Hajer, 2006) of the individualist, hierarchist and egalitarian discourse on sustainability in the Sint Maartenskliniek and Isala in times of COVID-19? The aim of this part of this part of the analysis is to illuminate how different actors in the Sint Maartenskliniek and Isala, and organisational practices within these hospitals, help to reproduce or fight these three discourses, without necessarily coordinating their actions or without necessarily sharing deep values (Hajer, 2006). In this sense, actors often are unaware of their discursive positions.

Before the coding of the interviews, code groups or placeholder codes were deductively created according to the three discourses of CTR. These code groups are: view on nature_E, view on nature_H, view on nature_I, view on resources_E, view on resources_H, view on resources_I, risk perception_E, risk perception_H, risk perception_I, time perception_E, time perception_H, time perception_I and management strategy_E, management strategy_H, management strategy_I. Thereafter, codes were inductively created during the process of coding and then attached to each fitting code group. The aim of this research is not to make a comparison between the SMK and Isala, but to sketch out discourses in both hospitals. Therefore the data from the interviews is collectively analysed.

4.3.1 Individualist Discourse

The individualist discourse is characterised by the belief that nature is benign and stable (Steg & Sievers, 2000), wherefore other components often are considered to be more relevant than the sustainability component. This becomes clear in the following statement:

“Ultimately, it is about the patient. So the moment a movement or an investment in sustainability contributes to the quality of care, we agree very quickly. But if that movement does not directly contribute to the quality of care, you know that patient will not get better any faster. So if that construction costs ten million more, it won't happen. The business model just doesn't work this way, we are now investing 10 million more on 50 million and then we will have earned back those 10 million in 6 years. I don't think they even calculate that far”(Department of facility 1, SMK, personal communication, 07-07-2020).

Although this statement is not directly on the view on nature, it can be connected to the view on nature as being a stable equilibrium, because it is implied that nature does not need prioritization and will bounce back to its original state, even with the effects of human interference. As for the view on resources in the individualist discourse, resources are

considered to be abundant and uncontrollable. In conversation on whether to purchase disposable or reusable SMS materials, respondent 1 of the department of purchase argued that:

“Disposables are cheaper, easier and you have to think about it less. You can just throw it all in the garbage bin” (Department of purchase 1, Isala, personal communication, 01-07-2020).

Purchasing reusable materials instead of disposables adds another supply chain to the process, because these materials need to be collected, transported to the washery, washed and transported back to the hospital. At this moment in time, the individualist perspective on resources is most dominant in the actual daily practice in the healthcare system. The respondent of the department of purchase in the SMK gave the following response when asked if sustainability was part of the business case of disposables versus reusables:

“Didn't play a part here in the past, not known to me. It was mainly a financial and functional consideration ” (Department of purchase, SMK, personal communication, 07-07-2020).

In a similar line, in the strategy and mission of the SMK, sustainability has never been included. It was only as of this year that sustainability was firstly mentioned in the framework letter, although still mostly connected to only the energy transition. Environmental risks are believed to bring about opportunities in the individualist perspective. There was a discrepancy in the story of the respondent of the department of purchase 1 in Isala. On the one hand, they argued that Isala was taking sustainability into account during the purchase process, while on the other hand, they argued that the price/quality ratio and availability are much more important than sustainability in the consideration of a product. When this discrepancy was pointed out during the interview, they argued that:

“Well no, but that is also because we only have a certain amount of money of which we have to pay everything for. So if you invest more in sustainability of the 40 million you can spend, and suddenly it costs 50 than you have a problem Because it is not the case that we get more money because we purchase sustainably. So you have to be very creative and do what is possible within the budget. And that is the field of tension in which you move continuously” (Department of purchase 1, Isala, personal communication, 01-07-2020).

Apparently, even though partly unwillingly, environmental risks have to be taken because of the tight budget. Investment in sustainably turned out to be difficult because of the boundaries that are set within the availability of money that is, evidently, meant for the

treatment of patients. As for the perspective on time, COVID-19 has shifted the focus to the short term, in the sense that the virus should be dealt with firstly:

Well, ultimately it stands or falls with what you can invest. And now because of the corona, despite the fact that a hospital is in full swing, it gives a completely different dynamic in terms of income and therefore also what we will soon be able to invest again for sustainability, among other things ”(Department of infection prevention 1, Isala, personal communication, 09 -07-2020).

This perspective became apparent in the following statement in which sustainability is considered to be something luxurious:

“ In my opinion we are still in a situation in which all hands are needed for continuity. And then you do not have the luxury, because then it is a luxury in the end, to be able to choose the sustainability component to be also included in a selection. We already have to drop functional requirements, let alone include sustainability” (Department of purchase, SMK, personal communication, 07-07-2020).

This perspective can be carefully connected to the position of the individualist discourse in which only the short term is connected. The addition of the word careful is relevant in this sentence as the COVID-19 crisis requires a lot of attention as well at this moment. In a similar line of thought, in the SMK, waste, and COVID-19 waste, is considered to be unavoidable within the department of infection prevention:

“Because we are not such a good example of sustainability at all in terms of infection prevention, because we quite love disposables. And disposable and disposable gloves and disposable masks and disposable aprons well preferably disposable wipes and disinfection are not all things that immediately make you think about sustainability. So I sometimes find that quite difficult, that I think yes you know when I look at corona, I also looked at it a bit when I got your question I thought Jesus, when I see how much waste we produced, in the sense of aprons and gloves and masks and all of this was disposed of in very expensive risk tons, then being incinerated for 60 or 70 euros per barrel, yes sustainability, corona, I don't know whether that contributed to sustainability for the hospital ” (Department of infection prevention, SMK, personal communication, 20-07-2020).

The statement above falls partly into the individualist discourse and partly in the hierarchist discourse because needs are regarded to be uncontrollable, as is the case in both discourses, yet resources are considered to be uncontrollable considering the way that is dealt with disposable materials, and thus falls into the individualist discourse. This reasoning makes sense, given the infection risk of COVID-19. As for the management strategy, a market system is adhered in the individualist discourse. In a conversation on disposables versus reusables aprons, the respondent 1 of the department of purchase gave the following explanation:

“Yes that is quite a difference. Yes and then in addition, you have a complete change of the supply chain that is deteriorated. There must be more space for laundry carts, and a different logistics flow has to start running next to it. That is very mixed up. And people are not used to it, so they would throw away their reusables because they think it is disposable” (Department of purchase 1, Isala, personal communication, 01-07-2020).

This line of thought is perceived from the perspective of the market, as the most efficient and cheapest method is argued for. In this statement, it is implied that the market system will find the most price efficient course of action.

4.3.2 Hierarchist Discourse

De hierarchist discourse is characterised by the belief that nature is perverse. The view on nature is stable equilibrium (Steg & Sievers, 2000). As was the case in the individualist discourse, the view on nature was not specified in the interviews. In between the lines, the hierarchist view on nature was found in the following reflection on sustainability:

“If sustainability has added value, it will certainly be taken into account. It is certainly not not looked at. We certainly look at the supplier, also with regards to sustainability: how could we use a product sustainably? (Department of purchase 1, Isala, personal communication, 01-07-2020).

When connecting this to the hierarchist view, nature holds an equilibrium only up to the point to which experts have set boundaries for human interference. An example is seen in the following quote of the respondent of the department of facility 2 in the SMK:

“Anaesthesiologists have intravenous anaesthetics and inhalation anaesthetics. The second seems to have an enormously high CO₂ emission. So they have looked at that very much at the LUMC. What we see in the SMK is that we already used 90 percent of the one that emits less. So with us there is not really an effect on that; actually we already do that” (Department of facility 2, SMK, personal communication, 08-07-2020).

Only when these kind of environmental effects are known and defined by experts, sustainability can be taken into account to its fullest potential. The importance between the linkage of thinking, knowledge development and action perspective was also visible in the analysis of the experts interviews. People have to have a perspective on what action is most sustainable, as set by experts, before they can change their behaviour. To do so, communication and connection is important. In the SMK, coffee cups are collected separately, creating the illusion that these will be disposed of separately as well. However, these cups end up at the regular waste disposal:

“I think that a limiting factor [for creating sustainability in the Dutch healthcare system] is insufficient knowledge about these kinds of things. The whole discussion in our hospital about coffee cup: are these thrown away separately or not, are they collected separately or not. And that employees do not know that in the end it is thrown anyway. Yes it is good to communicate about it. So communication is a stimulating factor, lack of communication is a limiting factor” (Department of pharmacy, SMK, personal communication, 15-07-2020).

Experts can also set boundaries that have a negative effect on sustainability yet are necessary, e.g. guidelines on infections prevention:

“Well, we record a lot in modern countries. The highly developed countries have set out many quality guidelines. If something deviates, you are not allowed to use it. I think this is very good, because that keeps your quality in order. On the other hand, I think that at some point, Covid certainly taught us that, one of the things that we got rid of, years ago, are washable apron. And that was purely by looking at such a washable apron, you wash it 100 times, the quality is no longer good enough and then you throw it away. And a disposable apron you throw away every time. Eventually the prices were compared. That washable apron also includes transport and the laundry costs, if you add that together, a disposable apron is cheaper. That was actually a transition at the time that occurred without many problems in the entire healthcare sector. And now you see that we are actually moving back a bit to say yes, but if we have such a washable apron it is ours, we rented it, but at least that is something that is continuous. We are not dependent on a supplier who cannot deliver. Could sustainability be more on that side? It is very broad. We did look at products a little differently again. How you use them. I think that is an opportunity to look more at the possibilities of this, in some processes in which we already dealt with reusables years ago. And you can see that in yes together we really did learn more things from this outbreak. (Isala infection prevention 1, personal communication, 09-07-2020).

COVID-19 has, which was visible in the media analysis, revealed certain trends in society, such as the realisation that the dependence of materials on other countries, e.g. China, is quite strong in the Dutch healthcare system. The statement above has a quite optimistic perspective on the effects of COVID-19 and sustainability, in the sense that it could create a shift in thinking from disposables to reusables. Although Isala and the SMK contacted new and old connections in China and other alien countries to be able to guarantee the continuation of healthcare, awareness of this dependence increased due to COVID-19. The respondent of the department of facility in the SMK argued that:

“That is a positive effect of corona, that you see that the supply chain is falling and that we have cheap production in China and that we simply do not have disposables that are necessary for that primary care. That we therefore run a great risk. And that now you get the discussion of yes, but we have to have everything produced in China and it is not convenient to have a certain stock here or to produce it ourselves. (Department of facility 1, SMK, personal communication, 07-07-2020).

An increase in awareness was visible in both hospitals. This implicates a shift from the individualist perspective to a more hierarchist perspective, as the view of experts and knowledge is taken into account more. Another connection to the view on resources is the topic of waste. In all interviews, waste was discussed. This could have to do with the

visibility of waste or waste being a metaphor for sustainability in general, mentioned in section 4.3.1, as well as mentioned in the interview with respondent 1 of the department of facility in the SMK:

“You see, the funny thing is that, and then I really bring the topic back to the workplace, you see that employees at some point form an opinion on our waste separation. I think it is a nice metaphor or a nice item to raise the bar as to whether we are sustainable or not. People often think that waste separation forms a kind of basis for whether we are working sustainably, while in reality, sustainability is found in many more areas” (Department of facility 1, SMK, personal communication, 07-07-2020).

Apparently, a growing focus is visible in the workplace as it comes to the hospitals dealing with waste disposal and separation. This is a trend that is pressured from the macro level or the landscape level: in society people are used to separating waste. An example is the following statement from the interview with employees of the department of purchase in Isala, in which waste disposal was mentioned thoroughly:

“I am very used to separating waste, there are more people who do that of course. With our own trash cans and our own bins. You also hear from colleagues: oh hey at home I strictly separate my plastic and here I put everything in one bin. Only you have a lot of things behind it because you have to have different bins on the work floor to put different types of waste in and you also have to have all kinds of waste bins in your dirty rooms. And to collect you also have to have different containers and very often you just don't even have the space for that. It is not as easy as it seems ” (Department of purchase 1, Isala, personal communication, 01-07-2020).

Discourse analysis is very much about why something else is said instead of something else (Hajer, 2006). In the above statement, the diminishing of waste has not been mentioned. This perspective falls into the hierarchist discourse because it is, unconsciously or not, built on the belief that resources are scarce but controllable, because we can separate waste, yet needs are uncontrollable because the amount of waste is considered a given. In the treatment of infected and isolated patients, certain products used cannot be cleaned. Even when these products are still in their original packaging, the packaging possibly is permeable and bacteria could be on the outside. Because of the risk of transmission, unused products are thrown in the garbage bin. In this line of thought, the following statement of the respondent of the department of infection prevention of Isala is made:

“That room has to be cleaned and we throw everything away. So yes, that is of course not very sustainable. (...) So we looked at the cleaning department together: can we manage this better? And there was a whole project to look at back then, at the end of such an insulation, we can ensure that as few materials as possible have to be thrown away. And you have to arrange that at the front because you have to ensure that your cupboards do not become too full in such a room. You have to involve a lot of people in it, because of course it is not only cleaning that is part of it. It is also not just the facility employee in a department, because those are mainly the ones who

normally fill a room with stuff. It is also the nurses and the interaction between them. Because someone who fills such a room does not know exactly when the patient will be discharged. The nursing staff often knows that and sees such a moment coming. And there you have to make sure that communication is in order. And you also have to educate the nurse because they are very focused on I absolutely do not want to miss out. So if I need a catheter, I put five down because the next time I will certainly not miss out. Then the patient is discharged the next day and there are four catheters that you have to throw away” (Department of infection prevention, Isala, personal communication, 09-07-2020).

A project like the one described in the statement above is an example of the hierarchist discourse. Even though materials are needed, healthcare employees can learn to deal with materials in a responsible way. In this way, resources can be controlled through a project aimed at enhancing mutual communication. As for risk perception, an interesting observation was visible in Isala in the department of purchase regarding their perspective on possibilities for sustainability:

“Yes, it is very quickly believed that sustainability will cost extra money. But that is not always necessary. As with the coffee, which I just mentioned as an example, we have improved in price compared to the previous coffee. The quality is better and we are working more sustainably. (...) Right. Yes. Another example is that I did the cradle to cradle at our laundry. We use a party that is also very involved in sustainability. So the use of water that is released during the washing process, economical use of energy, but also, because they buy materials, they also buy linen that we rent from them. We ask their supplier: how can they produce as sustainably as possible? For example, you can take pure cotton, but you can also say that we use a combination of cotton with a kind of polyester so that the items last longer. So that is also more sustainable. (Department of purchase, 2, Isala, personal communication, 07/15/2020).

Within the hierarchist perspective, risk is accepted within boundaries set by experts. In the statement below the financial boundaries of possibilities for sustainability are explored. In this sense, financial risk is tested in order to improve sustainability in the hospital. The last aspect of CT is management strategy. Interestingly, no respondent wanted the healthcare system to be fully controlled by the government. Therefore, the hierarchist perspective on management was not represented in the cases.

4.3.3 Egalitarian Discourse

In the egalitarian discourse, nature is considered to be ephemeral. In the interview with the department of facility 2, it was argued that the average healthcare employee is more aware of healthcare and therefore has the potential to be working on sustainability:

“I think that in healthcare people in themselves all have the potential to be very involved in sustainability and health and that sort of things. Yet you see it more often in business operations and in some commercial companies. Why that is not the case in healthcare really shoots me, I do not know (...) Because I believe that the average healthcare employee is more involved in sustainability than someone in a commercial company” (Department of facility 2, SMK, personal communication, 08-07-2020).

The view on nature of healthcare employees is considered to be above average. The respondent believed that people working in healthcare have more potential to work sustainability than commercial companies. Remarkable is the dichotomy between the belief of people and the way they act. In the interviews it was often noticed that people have certain values in their personal life that are not expressed in their work. For instance,

“Especially in healthcare, I see that also in publications in different places, especially young specialists who understand that we preach healthcare while we simultaneously harm the environment. So the way we treat our environment does not lead to healthy care. An example is an internist somewhere in the Netherlands who wonders whether the massive amounts of plastic we use, that end up in the environment, cause certain internal disorders such as intestinal disorders” (Department of pharmacy, SMK, personal communication, 15-07-2020)

In the egalitarian view on nature, nature is believed to be in a precarious balance. The moment one component is altered, e.g. the accumulation of plastic in the environment in the statement above, the balance in nature is influenced. In this sense, all parts of an ecosystem are interconnected, which is the internist in the statement above is aware of. As for the view on resources, the following statement could be placed into the individualist perspective, as it is characterised by lavish usage of bandages and the corresponding view on resources being abundant. However, the realisation of this lavish behaviour by respondent 1 of the department of purchase implicates a connection to the egalitarian perspective, in the sense that needs are believed to be controllable:

“At one point during the COVID-19 crisis, we ran out of gauze pads. Those are pads, well, you can imagine. A stack of pads. We no longer had 10x10 because they incidentally came from China. And it also seemed that they were not going to be available for the time being. I think you went to look in the hospital of how are these actually used? And then it turned out that they were using it for anything and everything. As a cleaning cloth, and if there was a stain somewhere, you did not take one, but then you just take 10 pads. So that people just weren't very frugal, if that's the right word. So just deal with it very lavishly. The realization that everything that needs to be made has value, well that might be something. That it is not used properly” (...) And then you use less materials, so I think you can still gain a lot from that. Only that requires something in the way staff work, that they start to think more consciously” (Department of purchase 1, Isala, personal communication, 01-07-2020).

Although the realization of lavish behaviour has not yet resulted in changed practices, it is centered around the believe that environmental impacts can be diminished through human behaviour that is aimed at controlling needs. This realization is in line with the findings of the narrative on change and stability in the healthcare system in section 4.2.3, in which a first tentative sketch of the egalitarian discourse is set out. One important component of the chain of change is the development of knowledge. What became apparent in the statement above, is that seemingly trivial practical knowledge can be relevant in the transition

towards a sustainable healthcare system. Moreover, the perception of environmental risk in the egalitarian perspective is risk aversion. In the SMK, according to respondent 1 of the department of facility, an increase in awareness on environmental risks that are taken does not originate from within the hospital, but from society:

“The board of directors has also said sustainability is becoming an issue for us. So that means that we will now structurally write plans for this. I think these are very good developments and the beginning of where we have to go. It is very demand-driven. It is because we all find it important here that we are now doing it because society is exerting that pressure. But it does not come intrinsically from within the organization because we consider sustainability important as a company” (Department of facility 1, SMK, personal communication, 07-07-2020).

Within the egalitarian discourse, the perspective on time is closely related to the management strategy, because in order to foster equality of outcomes for present and future generations, a long term has to be taken into account. This perspective is reflected in the following statement:

“And then I also think about how many people will be on this planet and how do you ensure that you can still live here, how do you ensure that you have sufficient nutrition for everyone and how can you cultivate that. When I hear that a lot of jungle is being caught everywhere, I find that sad. I think this is bad for you as a person, because it creates less oxygen, and you name it. Then you will soon have lesser quality of life here. We have to think about that. And we should not always want to produce. I think we should also think about the lifespan of materials and so on. Then I also think that you should look at producers. It should not always only be about generating money or production in such a way that products have a very short lifespan, but we should ensure that products have a very long lifespan, and produce less waste. But also less need to be produced” (Department of purchase, 2 Isala, personal communication, 15-07-2020).

In the statement above, respondent 2 of the department of purchase argued that we should take the lifespan of materials into account in the consideration of purchasing products. The view on management in the egalitarian discourse does neither exclude state control, nor the market system, but adheres a strategy that fosters equality for present and future generations. In this sense, cooperation between all layers in an organization, or on a bigger level in the healthcare system and in society, is important. Respondent 1 of the department of infection prevention argued that we should neither go back to a fully government-controlled system, nor should we turn to a system of competition:

“I don't think we should go back to fully government-run healthcare. But competitive healthcare is actually not what you should want. It is not a company. You want healthcare to have a certain basis on which you can rely as a society. They should actually look into that, because I think that in some areas too much market forces are now being demanded from hospitals of other healthcare institutions. That that ensures that certain basis is less present because of that. And becomes less available. But it is very important for certain groups of people who need just

that bit of healthcare. And in that I think that it might be worthwhile to look at that again because too much market force is not good in healthcare” (Department of infection prevention, Isala, personal communication, 09-07-2020).

In anticipation, a market strategy that fosters equality for all is a system in which ideas are shared between all departments. Within the egalitarian perspective, the best way to manage sustainably is when all people take responsibility for their actions. According to the respondent of the department of infection prevention of Isala, the way to achieve this is, is through a mixture of bottom up and top down initiatives:

“So that ideas can originate bottom up, but then there is something like, for example, the waste problem of isolation rooms that it becomes a project to see how we can achieve that. And once that is a success in one department, it is shared with the other departments. That is actually a combination of someone who signals from below: damn we throw away a lot of stuff and then, from above it is picked up from the facility management as a project to say let's start a pilot on this and ask: can we change that too? So I think it has to come from both sides because I think that people in their nature really want to see that they are doing something right and that it is therefore also appreciated by a manager but also by the board of directors for example. The mindset must be present throughout the organization. Creating fertile land, I think, lies within the management. To then give the employees the opportunity to plant the seeds” (Department of infection prevention, Isala, personal communication, 09-07-2020).

The management creates fertile land and provide employees with the opportunity to plant the seeds. The notion of civil society can be connected to this, in the sense that sustainable change in the healthcare system originates from the initiative of the accumulation of different organisations in society.

4.3.4 Sketch of Discursive positions

The distinction between the individualist, hierarchist and egalitarian discourse in the SMK and Isala turned out to be not so clear-cut. Different statements, or even one and the same statement, can fall into different perspectives and is dependent on interpretation. Throughout the analysis of interviews with key players, it was found that being occupied with sustainability and actually working sustainably are two different things. The statements of employees might have been clouded because these interviewees possibly gave desired answers instead of answers that were closer to reality (van Thiel, 2014). The interesting aspect of this as for the discursive positions, is the argument that healthcare employees increasingly want to work more sustainably, yet do not know where to start. This argument can be made clear by the use of the concepts of discourse structuration and institutionalisation as set out by Hajer (2006). Even though these theoretical concepts are not operationalised to apply in the analysis, they are useful in grasping this dichotomy between talking about sustainability and actually working sustainability. The discourse structuration of the hierarchist and egalitarian perspective is more visible than the individualist discourse: most

healthcare employees want to consider sustainability in their daily work, yet, within the current law and regulations and management strategies, sustainability rarely is part of current healthcare practices. Moreover, a lack of action perspective disables employees to start working sustainability. Therefore, the current discourse institutionalisation of the healthcare system is most similar to the individualist discourse. One could argue that healthcare practice is lagging behind on the opinions and beliefs of healthcare employees. Although these beliefs are barely institutionalised, the discursive shift to a more hierarchist or egalitarian perspective is already visible in the discourse structuration of the healthcare system. However, a clear distinction was visible within the two cases. The SMK has only mentioned sustainability in their framework letter as of this year; before, it has never been part of the mission, vision or strategy whatsoever. Not all employees of the SMK argued that sustainability had to become an important part of the policy. In contrast, in Isala, sustainability has been an issue for quite some time now and has been part of the mission, vision and strategy. It is already included in policies. Nevertheless, all employees of Isala argued that the hospital could do more in terms of creating a sustainable work environment. The effects of COVID-19 on the micro level are mentioned in the following section

4.4 Incongruency in Discursive Structuration and Institutionalisation

In this section, the findings of section 4.4.1 to 4.4.3, related to the three discourses, were connected in order to give an interpretation of the current developments in the healthcare system. Furthermore, data retrieved from the case studies of the SMK and Isala is compared. Identification of key incidents in the three parts of the analysis helped to create an account of discursive structures of creating sustainability in the healthcare system.

The Key Incident COVID-19

Key incidents and their effects are essential in understanding discursive dynamics (Hajer, 2006). The most obvious key incident throughout his research is COVID-19. In this section, the effect of COVID-19 on the transition to sustainable healthcare is explored. In section 4.2.3 a narrative was written about COVID-19 either being an enabler or a barrier. When comparing these findings to the findings of the interviews with key players, a similarity is found in the idea that COVID-19 gave a completely different dynamic to financial possibilities for sustainability in the healthcare system. On the short term, this can be a, perhaps temporary, relapse from a growing hierarchist or egalitarian perspective back to

the old individualist perspective. This is due to a focus on health instead of nature, and the reinforced dynamic of survival of the market system. The shift in terms of thinking that was found in section 4.2.1 was visible to an even bigger extent in the helicopter interviews, yet only mentioned a few times in the interviews with key players. Apparently, in daily healthcare practice, every possible joint effort was made to tackle the effects of COVID-19. Sustainability initiatives were not necessarily cancelled, but postponed. During the COVID-19 crisis, not much attention has been paid to sustainability in the SMK and Isala. The effect on thinking on the long term, after the crisis, might be more significant. Nevertheless, due to the collapse of the supply chain due to COVID-19 healthcare employees became aware of the dependence of other countries regarding disposable materials, and the waste that is produced for these materials. This is in line with the findings of the helicopter interviews in which it was argued that COVID-19 could be a boomerang for societal issues. Systemic faults are revealed through COVID-19. On the long term, this implies a discursive shift from the individualist discourse to a more hierarchist or even egalitarian discourse, because some healthcare employees realized that a market management system is not always the most effective one. In sum, COVID-19 has inferred different movements in the discursive positions of sustainability. In some aspects, on the short term, it has created a movement from the hierarchist or egalitarian perspective back to the individualist perspective, in other ways, on the long term, it has created a movement in the opposite direction.

Interpretation of Discursive Positions in the Healthcare System

This interpretation of discursive positions is structured according to the five aspects of CT: view on nature, view on resources, environmental risk perception, perspective on time, needs and management strategy. As for the view on nature, it became apparent from the interviews with key players that a movement is originating on the meso level of the healthcare system, shifting the perspective from the individualist perspective to at least the hierarchist perspective. The awareness of the effect of human interference on the environment had already been growing; with the arrival of COVID-19 this awareness increased. Nature no longer is considered a stable equilibrium, the climate crisis and COVID-19 made clear that ecosystems can be altered drastically in a short amount of time. As for the view on resources, the discursive position that is most prominent in the healthcare system is the individualist discourse. Although COVID-19 revealed the dependence on other countries for materials, it is too early to tell whether a shift to the believe of resources being scarce or depleting will occur. Nevertheless, the debate on disposables versus reusables has been given

more attention due to COVID-19. The risk perception falls mostly into the individualist perspective, as environmental risks are, obviously, taken in order to guarantee safe, hygienic quality care, e.g. the disposal of SMS materials. This is a matter of perspective. Within the media content analysis, some authors argued that economy and sustainability could both be components in a business case. In a similar manner, it was found in the expert as well as the key player interviews that sustainability does not necessarily have to be more expensive. This insight falls into the hierarchist discursive position, in which experts should develop knowledge on boundaries on the tension between sustainability, hygiene, good healthcare and a financially sound business model. The effect of COVID-19 on the discursive position of environmental risk perception is connected to taking financial risks in order to become more sustainable. Due to COVID-19, less money is available to invest in sustainable initiatives. A shift from the hierarchist to the individualist perspective is visible, in which market regulation predominates again. This shift was also visible in the media content analysis in which companies postponed sustainability initiatives in order to recover from the economic setback. Due to COVID-19, the time perception shifted from a individualist to a more hierarchist discursive position, in the sense that actors in the healthcare system became more aware of current practices and structures in the system. The discursive positioning of needs in the healthcare system is egalitarian, as it was found in all three parts of the analysis that people are able to diminish their needs. As for the market system, in the media content analysis a shift from influence from the market to the state was visible due to COVID-19. The idea was that the state should repair the market failure. In contrast, healthcare employees and experts refuted the idea of more state control. Instead, their statements and corresponding discursive positions were more in line with the egalitarian discourse, in the sense that they argued that collaboration and communication between all layers in an organisation and within society can enhance equality of outcomes for present and future generations. The effect of COVID-19 regarding a shift in management strategy was only visible in the media content analysis; in the interviews, the connection between COVID-19 and the management strategy was negligible.

The dissonance between the individualist, hierarchist and egalitarian perspective in the five aspects of CT in the healthcare system is a possible explanation for the challenges that benevolent actors within the system are facing in the transition towards creating a more sustainable hospital. The dispersion of structuration and institutionalisation of discursive position in the healthcare system might disable the unification of all actors in order to create a more sustainable healthcare system. As was mentioned in section 4.3.4, some hospitals are

further along the sustainability path than others. The institutionalisation of sustainability in the SMK is hardly visible, whereas this institutionalisation in the Isala has been visible in some aspects for quite some time now. The incongruity of the discursive positions of the individualist, hierarchist and egalitarian perspective might also provide with an explanation of the differences between the two hospitals. Within the SMK, the dispersion of institutionalisation and structuration is more potent than in Isala, wherefore this hospital might be working less sustainably.

5. Conclusion and Practical Implications

This research combined the ADA of Hajer (2006), the MLP and CT to explore the effect of COVID-19 on sustainability in the healthcare system. A media content analysis, expert interviews and interviews with key players in the cases of the SMK and Isala resulted in data on basis of which the discursive positions of the individualist, hierarchist and egalitarian discourses were interpreted. The discursive positions were the building blocks in answering the following research question:

How does the COVID-19 pandemic affect discursive positions in the Dutch healthcare system?

The Dutch healthcare system is affected by the micro level of niches, or in this research, the cases of the SMK and Isala, and the macro level of the sociotechnical landscape or the debate on sustainability and COVID-19 in the media. According to van Veen (2015) a sustainability transition study can only take full advantage of the insights a discourse analysis can offer if it also pays attention to the particular social order a discourse reproduces or challenges. What became apparent from the media content analysis is that the most manifest discourses in contemporary society or the macro level are the individualist and egalitarian discourse. A dichotomy was visible between companies that use COVID-19 as an excuse and companies that use it as a plea for sustainable recovery. From the data in the media content analysis it was argued that COVID-19 revealed this dichotomy in society. In this sense COVID-19 reinforced the movement from an individualist position to a more hierarchist position. On the meso level it became clear from the metaphors, narratives and story line that COVID-19 can be seen as a boomerang of the societal wrongs. This implicates an increase in awareness from the individualist to a hierarchist or egalitarian discursive position. The story

line of COVID-19 was one in which it turned out to be a barrier for sustainability in the sense that financial possibilities for sustainability were reduced due to expenses on the account of tackling the effects of the crisis, and the societal gap between the rich and poor was widened. This implicates a, perhaps temporary, shift from the hierarchist or egalitarian discourse to the individualist discourse, or to a strengthened of the individualist discursive position. Moreover, in this regard the transition within the story line of the chain of change has been impaired due to the effects of COVID-19. On the micro level, the cases of the SMK an Isala showed that discourse structuration and institutionalisation are two different things: employees often stated the relevance of sustainability, yet implemented sustainability in their daily work less often. An explanation for this is the lack of action perspective, law and regulations and current management strategies in the SMK and Isala. The effect of COVID-19 on this finding is two-sided. On the one hand, COVID-19 postponed sustainability projects in the two hospitals and shifted the focus to the healthcare of COVID-19 patients and thus had a decelerating effect on discourse institutionalisation. On the other hand, the effect of COVID-19 was a shortage in materials, which lead to an increase in awareness of the dependence of other countries and thus had an accelerating effect on discourse structuration. This increase reinforced the debate on local production and the debate on disposables versus reusables.

Overall, the discourse structuration of the hierarchist and egalitarian perspective is more visible than the individualist discourse: most healthcare employees want to consider sustainability in their daily work, yet, within the structuration of the current law and regulations and management strategies, sustainability rarely is part of current healthcare practices. Moreover, a lack of action perspective disables employees to start working sustainability. Therefore, the current discourse institutionalisation of the healthcare system is most similar to the individualist discourse. This is in line with the findings of the incongruency found in the five aspects of CT, in which a discrepancy between discourse structuration and institutionalisation impedes the sustainability transition in the healthcare system.

In response to the above, actors in the healthcare system are facing two interconnected challenges in the current discursive position of the healthcare system in times of the COVID-19 crisis. The first challenge relates to the development of knowledge. An action perspective for all healthcare employees must be created in order for the healthcare system to become more sustainable. The second challenge is more practical in nature and relates to the financial aspects: some hospitals have more financial resources than others to invest in sustainable

measures such as solar panels or the 'phase out' of gas. The financial situation of the cases the SMK and Isala has not become insightful in this research but could be a possible explanation for the differences between the two. This challenge has to do with the time span that is taken into account when investments are made. In this sense, when only the short term of tackling the effects of COVID-19 is taken into account, sustainability is regarded as less important. The challenge is to include sustainability as a component, even during the COVID-19 crisis. Evidently, both challenges are connected in the sense that an action perspective has to be set within the financial possibilities of hospitals.

A last note that must be made is that fundamental change cannot be achieved within the boundaries of only the healthcare system, as this system is connected to other systems that in itself are part of a sociotechnical regime, sociotechnical landscape and niche innovations. Mohrman and Shanie (2014) argued that change within the healthcare system cannot stir up a sustainability transformation by itself. This scope of the research, the Dutch healthcare system, leaves out other systems involved in the transition towards a sustainable society. Nevertheless, the healthcare system cannot be sustainable only from within itself as it is connected to the state, market and civil society. A sustainable transition can only take place within the complex dynamics of the micro, meso and macro level within all of society.

Practical Implications

Based on the results, the following practical implications can be formulated:

- In order to prevent a relapse of the effects of COVID-19 crisis, such as an increase in awareness, thinking, revelation of systemic faults in society and, a practical example, appointments by telephone, communication and sharing of knowledge between hospitals and actors within one hospital have to be made possible. One initiative that is in line with this is the founding of the Expertisecentrum Verduurzaming Zorg, which was only mentioned by the respondent of the NVZ and not once by any of the respondents from within the cases of the SMK or Isala. Actors within the healthcare system should become familiar with a centre like this one and share their experiences on sustainability in order to bundle knowledge on the topic.
- In order for healthcare employees to implement sustainable change, an action perspective is needed. Such an action perspective has the potential to reduce the incongruency between discourse structuration and institutionalisation within the healthcare system. In general, healthcare employees want to work

more sustainably, yet do not know where to start. An action perspective offers ways to institutionalise the discursive structuration that exists among employees.

- One way of creating such a perspective is through the establishment of a network of actors within the healthcare system, in which all layers of an organization are represented. To simply mention sustainability in the policy of a hospital does not necessarily facilitate sustainability: it has to be spread out through all layers within a hospital. One way of doing so is by the designation by the management of so called ambassadors throughout the hospitals. These ambassadors can promote sustainability from within different departments in the hospital.
- Barriers in law and regulations can interfere with sustainability initiatives of healthcare employees. The NVZ should make these barriers insightful and share this knowledge in the network.
- As the healthcare system is part of the sociotechnical landscape, consisting of all systems in society, it is crucial to think outside of the scope of the separation of these systems, yet to find mutual interest and problems in order to enhance cooperation and accelerate a sustainability transition in all systems.

5.1 Reflection and Recommendations for Further Research

The aim of this research was to explore COVID-19 in sustainability of the Dutch healthcare system. There are three recommendations for further research. Firstly, to take the matter one step further, it was found in the news articles as well as in the semi-structured interviews that COVID-19 is just one of the many crises to come. In this sense, COVID-19 could serve as a metaphor for crises in general. Besides being an accelerator for change and a possible transition towards a more sustainable healthcare system, COVID-19 can also be considered as a metaphor for crises in general. Another crisis, the environmental crisis, can be regarded a system crisis caused by unsustainable patterns in consumption and production. Parallels between the COVID-19 crisis and climate crisis are their disruptive impacts on all levels of society and the need for cooperation regarding mitigation of as well as adaptation to the effects of the crisis. This research showed that incongruency between discourse structuration and institutionalisation exists within the healthcare system. This insight can help to explore further research on the impact of crises in a more broader sense. Furthermore, it

would be interesting to repeat this research in a year to explore to what extent and in what way the effects of COVID-19, such as working from home or video calling, are still part of the healthcare system. Moreover, a repetition of the research a year from now would provide with insight in the way the discursive positions of the individualist, hierarchist and egalitarian discourse are present in the healthcare system and how this deviates from the findings of this research.

Lastly, the data retrieved in the interviews is very rich and detailed wherefore it could be used as a source for a zero measurement of sustainability in the SMK and Isala. The NVZ started a project to create a so called “*routekaart*” which is a tool to gain understanding of the current situation on sustainability in each hospital. If the SMK and Isala were to create such an overview, data retrieved from the interviews might be useful.

5.2 Limitations

One limitation of this research study was the constitution of the sample. Especially the suitability of the sample of the helicopter interviews is questionable, as two out of three experts turned out to have a lot of knowledge on the broad topic of sustainability, yet little knowledge on healthcare in particular. Nevertheless, their influence was used to create a first sketch of the healthcare system. By doing so, the implication was made that healthcare is part of society, and hospitals are private institutions, wherefore statements on sustainability in society were applicable to sustainability in the healthcare system. Of course, this reasoning is conceptual and not tested in practice. Moreover, an interview with an actor of a health insurance company or group of health insurers would have been an addition to the sample.

The second limitation is regarding the research method of discourse analysis and the qualitative case study design. One limitation of discourse analysis is the variety of different approaches. It can be difficult for the researcher to conduct methodologically sound research as each different approach comes with its own ontology and epistemology and procedures. Moreover, the definition of discourse and discourse analysis can vary in the different approaches. Another limitation of discourse analysis is that it does not provide absolute answers. This has to do with the interpretation of the texts by the researcher and the subjectivity this brings about. Moreover the case study design allowed for an in-depth exploration of the SMK and Isala in which data emerged from the cases instead and brought about new insights in discursive structures in two healthcare cases. However, these two cases do not allow for generalizations in the entirety of the healthcare system. The addition of the

media content analysis as well as the helicopter interviews partly forestalled this limitation and improved the triangulation of the research.

6. Bibliography

- Alvesson, M., & Kärreman, D. (2000). Varieties of discourse: on the study of organizations through discourse analysis. *Human Relations*, 53, 1125–1149. Doi: 10.1177/0018726700539002
- Arts, B., & Leroy, P. (2006). *Institutional dynamics in environmental governance*. Springer.
- Ballegeer, D., Rotteveel, M. (2020, May 4). Juist in overlevingsmodus blijkt het belang van duurzaamheid. *Het Financieele Dagblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YTP-K9X1-JCD9-200D-00000-00&context=1516831>.
- Bryant, C.G.A., & Jary, D. (2003) Anthony Giddens. In: G. Ritzer, *The blackwell companion to major contemporary social theorists*. The Blackwell companions to sociology.
- Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *Nursingplus Open*, 2, 8–14. Doi: 10.1016/j.npls.2016.01.001
- Bijlo, E. (2020a, April 17). Corona als excuus om milieu opzij te schuiven. *Trouw*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YNY-W421-DYRY-X008-00000-00&context=1516831>.
- Bijlo, E. (2020b, June 12). Ongekende geldinjecties, maar waar blijft het klimaat?. *Trouw*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:6041-NVV1-DYRY-X0BM-00000-00&context=1516831>.
- BNR Webredactie. (8 juni 2020 maandag). 'Klimaatdoelen voor Duitsland opeens binnen handbereik'. *BNR.nl*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:6035-WWN1-DYWB-S006-00000-00&context=1516831>.
- Bryman, A. (2008). *Social Research Methods*. New York: Oxford University Press.
- CBS (2019). Emissies naar lucht door de Nederlandse economie; nationale rekeningen; kerncijfers. *StatLine*. Retrieved from <https://opendata.cbs.nl/#/CBS/nl/dataset/83300NED/table?ts=1597656028313>

- CBS (2020). Zorguitgaven; kerncijfers. *StatLine*. Retrieved from <https://opendata.cbs.nl/#/CBS/nl/dataset/84047NED/table?ts=1597655930866>
- Claus, S. Redactie Binnenland. (20 april 2020 maandag). 'Nu experimenteren met een snelheid van 20 kilometer voor auto's in de stad'. *Trouw*. Retrieved from <https://advance-lexiscom.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YPK-SK01-DYRY-X022-00000-00&context=1516831>.
- Van Ditmars, A. (2020, June 9). De coronacrisis kost onwaarschijnlijk veel geld. Hoe verdeel je die op een goede manier?. *Trouw* Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:600V-WMT1-JBHV-K2F1-00000-00&context=1516831>.
- Dryzek J., & Pickering, J. (2018). *The politics of the Anthropocene*. Oxford University Press. Doi: 10.1093/oso/9780198809616.001.0001
- Duursma, M. (2020, May 16). Kabinet kiest niet voor duurzame luchtvaart; Nota Corona of niet, luchtvaart mag nog steeds groeien. *NRC Handelsblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YX7-KH11-JC5G-13RH-00000-00&context=1516831>.
- Esin, C., Fathi, M., & Squire, C. (2014). Narrative Analysis: The Constructionist Approach. In: W. Scott, *The Sage Handbook of Qualitative Data Analysis*, (pp. 203-216). Doi:10.4135/9781446282243.n14
- Fairclough, N. (2013). Critical discourse analysis. In J.P. Gee, & M. Handford (Eds.). *The Routledge handbook of discourse analysis*, (pp. 35-46). Routledge.
- Foucault, M. (1970). The archaeology of knowledge. *Information (International Social Science Council)*, 9, 175-185.
- Gee, J. P., & Handford, M. (Eds.). (2012). *The Routledge handbook of discourse analysis*. Routledge.
- Geels, F. W. (2011). The multi-level perspective on sustainability transitions: responses to seven criticisms. *Environmental Innovation and Societal Transitions*, 1, 24–40. Doi: 10.1016/j.eist.2011.02.002
- Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research Policy*, 36, 399–417. Doi: 10.1016/j.respol.2007.01.003
- Gill, R. (2000). Discourse analysis. *Qualitative researching with text, image and sound*. London: Thousand Oak and New Delhi. Doi: 10.4135/9781849209731
- Grin, J., Rotmans, J., & Schot, J. (2010). *Transitions to sustainable development: new directions in the study of long term transformative change*. Routledge.

- Guba, E., G., & Lincoln, Y., S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, California: Sage publications.
- De Haan, J. & Rotmans, J. (2011). Patterns in transitions: understanding complex chains of change. *Technological Forecasting & Social Change*, 78, 90–102. Doi: 10.1016/j.techfore.2010.10.008
- Hajer, M. (1993). Discourse coalitions and the institutionalisation of practice: The case of acid rain in Great Britain. In: F. Frank & J. Forester, *The Argumentative Turn in Policy Analysis and Planning*. (pp 51-84). London: Routledge.
- Hajer, M. (1995). *The politics of environmental discourse: ecological modernization and the policy process*. Clarendon Press.
- Hajer, M. (2006). Doing discourse analysis: Coalitions, practices, meanings. In: M. van den Brink, & T. Metzger, *Words matter in policy and planning: discourse theory and method in the social sciences* (pp. 65-74). Utrecht: Koninklijk Nederlands Aardrijkskundig Genootschap.
- Hajer, M., & Versteeg, W. (2005). A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives, *Journal of Environmental Policy & Planning*, 7, 175-184. Doi: 10.1080/15239080500339646
- Van Heel, L. (2020, March 13). 'Chaos is goed, het versnelt veranderingen'. *AD/Rotterdams Dagblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YJD-GWK1-JC8X-60S8-00000-00&context=1516831>.
- Heijboer, M. (2020, May). 'Stel eisen voor duurzaamheid en belastingbetaling bij steun'. *Algemeen Nederlands Persbureau ANP*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YY5-F4D1-JCV2-F36C-00000-00&context=1516831>.
- Jørgensen, M. W., & Philips, L. (2002). *Discourse analysis: as theory and method*. Thousand Oaks, California: Sage publications.
- Köhler, J., Geels, F. W., Kern, F., Markard, J., Wieczorek, A., Alkemade, F., ... & Wells, P. (2019). An agenda for sustainability transitions research: state of the art and future directions. *Environmental Innovation and Societal Transitions*, 31, 1–32. Doi: 10.1016/j.eist.2019.01.004
- Lips, R. (2020, June 16). 'We hebben verbinders nodig tussen het oude en het nieuwe'. *Trouw*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/>

api/document?collection=news&id=urn:contentItem:604S-4041-JC8X -62XH-00000-00&context=1516831.

- Loorbach, D. E. R. K., (2010). Transition management for sustainable development: a prescriptive, complexity-based governance framework. *Governance*, 23, 161–183. Doi: 10.1111/j.1468-0491.2009.01471.x
- Macnamara, J. R. (2005). Media content analysis: Its uses, benefits and best practice methodology. *Asia Pacific Public Relations Journal*, 6, 1-34.
- ‘Meer mensen willen gedrag veranderen voor klimaat door corona’ (2020, May 26). *De Telegraaf*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:600N-2BT1-DY4K-S4P8-00000-00&context=1516831>.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, California: Sage publications.
- Mills, J., Harrison, H., Franklin, R., & Birks, M. (2017). Case study research: Foundations and methodological orientations. *Forum Qualitative Sozialforschung*. 18.
- Mohrman, S. A., & Shani, A. B. R. (2014). *Reconfiguring the ecosystem for sustainable healthcare: Integrating outside-in and inside-out perspectives*. Emerald Group Publishing Limited. Doi: 10.1108/S2045-060520140000004012
- Mohrman, S. A., Shani, A. B. R., & McCracken, A. (2012). Organizing for sustainable health care: The emerging global challenge. *Organizing for sustainable health care*. Emerald Group Publishing Limited. Doi: 10.1108/S2045-0605(2012)0000002005
- Noort, van, W. (2020, May 30). De coronacrisis: fast forward naar de toekomst; Na de economische stilstand. *NRC Handelsblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:6017-61T1-JC5G-10NY-00000-00&context=1516831>.
- Overheden misbruiken crisis voor versoepeling milieuwetten. (2020, June 10) *Het Financieele Dagblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:603J-HF41-DYWB-S1TX-00000-00&context=1516831>.
- Phillips, N., & Hardy, C. (2002). *Discourse analysis: investigating processes of social construction*. Thousand Oaks, California: Sage publications.
- Potter, J., & Wetherell, M. (1987). *Discourse and social psychology: beyond*

- attitudes and behaviour*. Thousand Oaks, California: Sage publications.
- Redactie Duurzaambedrijfsleven (04-04-2020). Voorbij de coronacrisis: op naar een nieuwe economie. Retrieved from <https://www.duurzaambedrijfsleven.nl/corona/33541/coronacrisis>
- Redactie Het Kompas (2020, April 10) Intussen gaat nadenken over duurzaamheid door. *Het Kompas vrijdag*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YMK-HDX1-F01K-T0GS-00000-00&context=1516831>.
- Rip, A.& Kemp, R. Technological change. In S. Rayner, & E.L., Malone (eds), *Human choice and climate change* (pp. 327-399). Ohio: Battelle Press.
- Rijksoverheid, n.d. Retrieved from <https://www.rijksoverheid.nl/onderwerpen/duurzame-zorg/meer-duurzaamheid-in-de-zorg>
- Ritzen, J., Knottnerus, A. (2020, May 13). Opinie: Na corona moet het beter: laat EU dus sturen op groener en gelijkter. *De Volkskrant.nl*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YWG-4HV1-JBHV-K22D-00000-00&context=1516831>.
- Rooij, van, B. & Scholtes P. (2020, June 2). 'Afkicken van onze verslavingen': Wat we moeten leren van de coronacrisis. *Brabants Dagblad.nl*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:6018-7WV1-JBHV-K559-00000-00&context=1516831>.
- Schot, J., & Geels, F. W. (2008). Strategic niche management and sustainable innovation journeys: theory, findings, research agenda, and policy. *Technology Analysis and Strategic Management*, 20, 537–554. Doi: 10.1080/09537320802292651
- Sabatier, P. A., & Weible, C. M. (2007). The advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy Sciences*, 21, 129-168.
- Schijven, D. (2020, May 16). 'Duurzaamheid even in ijskast'. *Noordhollands Dagblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YX7-JGN1-JBNC-73JS-00000-00&context=1516831>.
- Sociale onthouding bevordert duurzaamheid (2020, March 19). *Reformatoisch Dagblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YFX-T171-F03D->

337K-00000-00&context=1516831.

- Steg, L. & Sievers, I. S. (2000). Cultural theory and individual perceptions of environmental risks. *Environment and Behavior*, 32, 250-269. Doi: 10.1177/00139160021972513
- Stil, H. (2020, June 8). Olaf Sleijpen (DNB): 'Het wordt eerder nog slechter'. Het Parool. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:6036-GN01-DY0X-914Y-00000-00&context=1516831>.
- Van Thiel, S. (2014). *Research methods in public administration and public management: An introduction*. Routledge.
- Tuenter, G. (2020, May 6). 'Na deze crisis neemt men voedsel niet meer voor lief'; Toetje?; Danone Zuivelfabrikant bepleit groene corona-exit; Ja, maar dan wel een ánder toetje.
- Door de coronacrisis zullen mensen voedsel niet langer voor lief nemen, zegt de topman van Danone. *NRC Handelsblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YV5-99D1-JC5G-1180-00000-00&context=1516831>.
- Van Veen, R. (2015). The use of discourse analysis in sustainability transition studies: A systematic review (Unpublished master's thesis). Wageningen University, Wageningen.
- Vlastuin, van, E. (2020, april 18). Viroloog met vliedschaamte. *Reformatorisch Dagblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:5YP8-KTD1-JCMB-C19K-00000-00&context=1516831>.
- Vos, T. (2020, June 10). Coronaproof én duurzaam. *Brabants Dagblad*. Retrieved from <https://advance-lexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:603J-H811-DYRY-X338-00000-00&context=1516831>.
- Wagenaar, H. (2006). Bureaucratic order and personal order: The narrative analysis of administrative practice. In: M. van den Brink & T. Metze, *Words matter in policy and planning: discourse theory and method in the social sciences*. Nederlandse Geografische Studies.
- Willig, C. (2014). Discourses and Discourse Analysis. In: W. Scott. *The Sage Handbook of Qualitative Data Analysis*. Thousand Oaks, California: Sage publications. Doi: 10.4135/9781446282243.n23

Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks, California:
Sage publications. Doi: 10.3138/cjpe.30.1.108