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Governing Occupation Through Constructions of Risk: The Case of the Aging Driver

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A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy

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GOVERNING EVERYDAY OCCUPATION THROUGH CONSTRUCTIONS OF RISK: THE CASE OF THE AGING DRIVER

(Thesis format: Monograph)

by

Silke Dennhardt

Graduate Program in Health & Rehabilitation Sciences

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

The School of Graduate and Postdoctoral Studies
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Abstract

Risk and risk-management have become increasingly pervasive features of modern society and governmentality scholars have highlighted various ways risk discourses are taken up to govern citizens and their everyday conduct. Thus, attending to risk is imperative to advance an understanding of how everyday occupation is shaped and governed within contemporary society. Within this study, the example of driving in later life is drawn upon to address two objectives: 1. to advance the understanding of how risk is taken up to govern everyday occupation, and 2. to explicate how risk is taken up in discourses to constitute particular subjectivities and their occupational possibilities.

In North-America, alarmist discourses predict a ‘grey Tsunami’ that will have devastating impacts on social and individual security if governments and individuals do not proactively prepare. Within this context, driving in later life has been problematized as a risky occupation. Consequently, the so-called ‘older driver problem’ provides an example to examine how risk is discursively employed to govern a specific occupation (‘driving’) and to shape a specific occupational subjectivity (‘the aging driver’). A critical discourse analysis (CDA) of information brochures targeting aging drivers and their families in Canada was conducted. Drawing upon governmentality as an analytical lens, the analysis focused on how risk as a rationality and technology was employed to construct the occupation of driving in later life and the subjectivities of aging drivers.

Brochures incorporated a particular rhetorical structure and risk logic that served to construct the occupation of driving in later as a site of governing. The risks of driving in later life were located in the aging body which is constructed as a mis-fit with safe driving, and three knowledge assemblages were employed to forefront a particular ideal aging driver subjectivity, that is a risk-averse ‘activated’ driver. The texts also promoted an array of self-practices as a means to work towards this subjectivity and avoid becoming a risk to self and others. The study raises concerns regarding how risk is employed in neoliberal modes of governing in ways that individualize responsibility for occupation and obscure the social and political shaping of occupation.

Keywords: Risk, occupation, aging driver, critical discourse analysis, information brochures
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Chapter 1

1 Introduction

Risk has become a pervasive part of contemporary Western society. Every day, people encounter many risk-related messages in their everyday doing; notions of risk have become a taken-for-granted part of modern everyday life. For example, when making breakfast, food labels bear reminders to not pursue this everyday activity thoughtlessly, but rather to combat future health risks. Every breakfast can become a ‘smart start’ in the quest for a long, healthy and disease-free life as it provides the chance to ‘make our heart one bowl stronger’ (Kellogg’s Smart Start®, 2011). Food products with names like Praeventia (Praeventia Bars, 2011) or On Track Cereal (President’s Choice On Track Cereal, 2011) encourage people to include preventive thinking in their daily activities, provide reassurance about being ‘on track’ in maximizing their lives and validate an epidemiological mindset that “life is a process of selecting a cause of death” (Levin, 2005, p.1103).

As well, the broader socio-cultural contexts in which people carry out the activities of daily life have also been re-shaped in relation to notions of risk. For instance, based on concerns about children’s safety and wellbeing, today’s spaces for childhood activities are increasingly narrowed and shielded by adults (Cobb, Danby, & Farrell, 2005; Jackson & Scott, 1999; Parton, 2006). In contemporary North America, childhood activities occur more and more in pre-planned, organized and surveilled ways (O’Brien & Smith, 2002; Scott, Jackson, & Backett-Milburn, 1998).

Scholars have noted that in contemporary risk-averse or ‘risk society’ (Beck, 1986, 1992) many things, such as obesity, genes, and illness, have come to be framed as ‘risks’ and, in

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turn, as undesirable, predictable, and preventable (Lemke, 2004; Lupton, 1995; McDermott, 2009). Considerations of risk and safety have become powerful features within modern Western society (Beck, 1992; Furedi, 2002; Garland, 2003; Giddens, 1991; Kemshall, 2002), often drawn upon to emphasize individual responsibility in following a ‘healthy’ lifestyle and enacting safety information (Bunton, Nettleton, & Burrows, 1995; Rasmussen & Kroon Lundell, 2012; Webb, 2006). In particular contexts, for instance, ‘accidents’ gradually disappear, intentionally replaced by the term ‘preventable injuries’. Individuals learn at their workplace that “there are really no accidents” (Workplace Safety & Insurance Board Ontario, 2008, p.4), editors of a scientific journal proudly announce that they have ‘banned’ the word accident from their journal as accidents are not unpredictable ("BMJ bans 'accidents': Accidents are not unpredictable" by Davis & Pless, 2001), and newspapers frame falls among seniors as a preventable public health problem and ‘falling seniors’ as a risk and burden to society (“Falling seniors: A preventable problem, a ‘huge health burden’”, The Globe and Mail, May 29, 2011). Such examples raise questions about the social consequences of the prevalence of risk in shaping realities of social life. For occupational scientists, these examples raise questions regarding how risk is implicated in shaping everyday activity.

The meaning of ‘risk’ itself has also changed remarkably in Western society (Bernstein, 1996; Hacking, 1990; Luhmann, 1993; Lupton, 1999a; Stalker, 2003). Despite a few exceptions in circumscribed contexts (e.g., business or extreme sports where a ‘risk-taking’ individual might be seen as having positive qualities), the term ‘risk’ is now delimited to a negative meaning. Indeed, it seems as if the meaning of risk has lost its potential to signal the possibility for a positive change. Risks are now negative outcomes to be managed and avoided through informed and thoughtful decision-making. At least in the last decade, risk in its negative meaning and its management have become popular and increasingly pervasive features of modern everyday life. As Giddens (2002) states “this apparently simple notion [of risk] unlocks some of the most basic characteristics of the world we live in” (p.39).
1.1 Linking risk and occupation

As an occupational scientist, I view ‘occupation’ as one of the most basic characteristics of people’s everyday life worlds. In occupational science, the term occupation is broadly defined as “all the various everyday activities people do as individuals, in families and with communities to occupy time and bring meaning and purpose to life. Occupations include things people need to, want to and are expected to do” (International Society of Occupational Scientists, ISOS, 2012). Recently, there has been increasing critique in occupational science that research, up to this point, has privileged individualistic perspectives (Cutchin, 2004; Dickie, Cutchin, & Humphry, 2006; Hocking, 2012), has been dominantly informed by Western values and histories (Kantartzis & Molineaux, 2010), and has been not attended sufficiently to socio-economic and political contexts in which occupation is constructed and occurs (Galvaan, 2012; Hocking, 2012; Laliberte Rudman, 2012). Theoretical concepts related to occupation, such as ‘occupational identity’ and ‘occupational choice’, have also been critiqued (Galvaan, 2012; Laliberte Rudman, 2012; Phelan & Kinsella, 2009a) for failing to attend to the ways in which individuals’ choices and possibilities for occupation and identity are shaped within particular macro-level contexts.

More specifically in relation to risk, little attention has been paid to how some occupations become constructed as ‘risky’ and others are promoted as ‘healthy’ (Kantartzis & Molineaux, 2010; Kiepek & Magalhães, 2011). Therefore, there has been a recent call within the discipline for a critical occupational science that attends to power relations and focuses on understanding how social differences and injustices are related to occupation (Aldrich & Marterella, 2012; Angell, 2012; Townsend, 2012). A critical perspective, which has been developed in and enriched other disciplines, such as gerontology, health promotion, public health, and disability studies, is just emerging. For example, Laliberte Rudman (2010) has suggested the concept of ‘occupational possibilities’, a concept which emphasizes that occupation is intimately linked to power relations. She defines occupational possibilities as:

the ways and types of doing that come to be viewed as ideal and possible within a specific socio-historical context, and that come to be promoted and made
available within that context. Occupational possibilities refer to what people take for granted as what they can and should do, and the occupations that are supported and promoted by various aspects of the broader systems and structures in which their lives are lived. (p.55)

Thus, as Townsend (2012) argued in a keynote to an academic audience of occupational scientists, there is much “undeveloped critical potential to raise insights and questions about the organization of occupation” (p.10).

In this dissertation, I argue that attending to how risk shapes people’s occupations within their daily lives is imperative to understanding further how occupation is shaped within contemporary society and how ideas about occupation produce and reinforce social and occupational inequalities. By investigating risk not as an objective phenomenon, but rather as a particular ‘thinking style’ that governs possibilities for occupation, I take up the call for critically reflexive and contextualized knowledge generation in occupational science. Using the ‘aging driver’ problem as a specific example, I aim to show how taking a critical perspective on risk can open up new ways to think about how a problem related to occupation is constructed, so that alternative solutions to such problems become thinkable and, thus, possible.

There are two other reasons supporting the relevance of risk for occupational science. First, and intriguingly for occupational science, while many risk definitions exist, prevailing definitions are based on the idea that humans can (and should) control their futures through their everyday activities (Zinn, 2008). Once a risk is outlined, individuals are urged ‘to do something’ about it, such as, to avoid, decide for, alter, or engage in particular activity to manage uncertainty and minimize a potential harm, danger or threat. If the future would be considered as predetermined or independent of people’s doing, the term ‘risk’ would make no sense at all (Renn, 1992). This frequent and strong link to doing inherent in risk conceptualizations makes risk a vital focus for investigation in occupational science.

Moreover, risk definitions are inherently connected to power. How risk is understood and how it is related to occupation, by researchers, health care practitioners, policy makers, activists, and other social actors, simultaneously frames problems, possible actions and
proposed solutions. It informs actions, including the questions that are considered important to ask, the knowledge practices that identify specific populations as at-risk, or the activities proposed as the best ways to address risks. In this sense, as Slovic (1999) points out, the conceptualization of risk is inherently connected to power,

If risk is defined one way, then one option will rise to the top as the most cost-effective or the safest or the best. If it is defined another way, perhaps incorporating qualitative characteristics and other contextual factors, one will likely get a different ordering of action solutions. Defining risk is thus an exercise in power (p. 689).

The above quotation further highlights that risk conceptualizations are based on the values of those who define risk, such as achieving cost-efficacy, increasing safety, or calling for action framed by certain moral principles. Therefore, ‘risk’ is not a neutral and objective concept, nor can it be taken for granted; it is rather a contested term, based on the risk knowledges that are generated, compete or come to be viewed as ‘true’. Hansen draws attention to the close relationship between knowledge generation, uncertainty and risk, pointing out that “when there is a risk, there must be something that is unknown or has an unknown outcome; hence there must be uncertainty. But for this uncertainty to constitute a risk… something must be known about it” (Hansson, 2004, p. 10).

The connection between risk, power and knowledge raises two considerations for occupational science. First, it raises questions regarding the ways in which the occupations of individuals and collectives are governed through risk. In this dissertation, I use the example of the occupation of driving in later life to further understanding of how risk is taken up to govern occupation in everyday life. Second, the relationship between risk and power points to the necessity of critical reflexivity regarding the ways risk is understood and researched in occupational science. As one’s perspective on risk necessarily shapes the questions that are asked - and not asked - and simultaneously frames subsequent action, they can produce and reinforce inequalities and injustices in relation to occupation. Therefore, in this dissertation, I investigate how risk has been epistemologically attended to within the occupation-based literature and argue for, and demonstrate the contributions that can flow from taking a critically-informed governmentality perspective on risk within the study of occupation.
My interest in risk, its connection to power, and how it shapes possibilities to engage in occupation, is also motivated by personal experiences. Originally from Germany, my experience of transitioning to Canada raised my awareness of how socio-political contexts shape everyday doing. Transitioning also made me question many of my taken-for-granted beliefs. For instance, I began to question my assumptions about ‘risk’ as an objective, neutral, and impartial concept when I noticed that parents in one socio-cultural context thought and talked about things as ‘risky’ and not ‘safe’ for their children that parents in another context did not care about at all.

My enhanced self awareness of the socially-constructed nature of risk, led me also to critically reflect on my previous work as a mental health care professional. In this work, I had frequently experienced frustration regarding how increased concerns about ‘risk’ and ‘safety’ began to shape my immediate work practices, as well as how they limited some clients’ possibilities to engage in occupation. Parallel to these experiences, I had also noticed the increased emergence of particular words, which suddenly became fashionable in the hospital’s everyday context. These words struck me for their sudden prominence, but also for their apparent power; they were, for some reason, hard to argue against. Who could be against ‘flexibility’, ‘consumer orientation’, or ‘safety’? They sounded nice at first glance, but were often used in very specific contexts, and had practical consequences, shaping my work practices. For instance, in the provision of our ‘services’, my colleagues and I and were increasingly asked to be more ‘flexible’ and ‘consumer-orientated’, but the word ‘flexibility’ was primarily used by clinic managers when it came to taking on a greater case-load in times of fewer resources. Particularly the last word, ‘safety’, drew my personal attention, as I experienced within the context of my work how concerns about ‘safety’ were able to justify and legitimate almost any new practice, as well as end related team discussions and potential critique quickly. Safety concerns also seemed to significantly limit some clients’ everyday live worlds, as safety concerns and fears of accountability were able to overrule individual needs and wishes, such as living independently. Reflecting on these experiences from an occupational science perspective, I became interested in how risk is constructed and how notions of risk inform what people do, what they desire and find meaningful to do, and how risk frames their possibilities to engage in occupation.


1.2 Thesis organization

Given that numerous definitions of risk exist, it is important to address the critical
reflexivity regarding the definitions of risk, used to inform one’s research. I therefore end
this chapter by introducing four major epistemological approaches to risk, based on the
work of Deborah Lupton (Lupton, 1999a, 1999b). I use Lupton’s risk heuristic in chapter
two to analyze how risk is currently addressed in the occupation-based literature. I return
to this heuristic again in subsequent chapters when I interpret and discuss the findings of
my research.

In chapter two, I present a scoping review of the occupation-based literature that explores
the relationship between risk and occupation. Drawing upon the epistemological
perspectives outlined in the first chapter, I present an analysis of how risk has been
conceptualized and linked to occupation in peer-reviewed literature in occupational
science. Based on this analysis, I argue for the need to extend research beyond a
technico-scientific understanding of risk, and to address the types of questions and
understandings that could emerge from the application of socio-cultural risk perspectives.
I conclude chapter two by presenting the rationale for focusing on the occupation of
driving, as performed by aging drivers, as the example I used in studying how risk is
taken up to govern occupation.

In chapter three, I describe the particular analytic perspective and methodological
approach used within this thesis to further understanding of how everyday occupation is
shaped, or governed, through risk. Within this thesis, I take a governmentality perspective
and employ critical discourse analysis (CDA) to study how the occupation of driving in
later life is discursively shaped within information brochures addressed to aging drivers
and their families in Canada.

In chapter four, I present the specific research questions that guided this critical discourse
analysis and explicate the rationale for choosing information brochures targeting aging
drivers and their families. This chapter also provides details about how the research
process was developed and carried out: how the research field was constructed, the search
strategies that were used to collect data, how the data was analyzed, and the quality criteria that were used throughout the study.

The findings from the critical discourse analysis of these brochures are presented in chapters five and six. Chapter five examines the rhetorical structure of the aging driver discourse that was shaped and circulated within the brochures, and illustrates three pervasive knowledge assemblages used within and across the brochures. Chapter six shifts the focus to findings that pertain to the effects of the discourse identified. I describe the ideal aging driver subjectivity that is constructed, as well as several ideal practices in which aging drivers are encouraged to engage in order to become successful “activated” drivers. Throughout both of these chapters, I pay attention to the ways in which risk discourses are taken up in the brochures as well as to the discursive techniques used.

In chapter seven, I return to the study’s guiding objectives, and discuss how driving in later life is governed through risk by constructing this occupation as a risk object. I situate how both, the occupation of driving and the aging body are problematized through a technico-scientific perspective on risk and how this problematization aligns well with neoliberal rationalities and enables ‘governing at a distance’. I also discuss how driving in later life is governed through the subjectivity of the activated driver, and outline the technologies of the self promoted as the means to continually work towards this subjectivity. I end this thesis by returning to my key objectives and discuss how my research findings illustrate occupation as a site of governing and a technology of government and consider the implications that arise from this for the study of occupation.

1.3 Mapping risk: An overview of epistemological perspectives on risk

There have been various attempts to map the diversity of risk conceptualizations. For instance, Fox (1999) investigates differences in the ontological risk-hazard relationship in realist, constructionist, and postmodern perspectives on risk and Denney (2005) highlighted differences in social practices that flow from six risk positions. In this chapter and throughout this dissertation, I draw upon Lupton’s organization, as it focuses on
differences in knowledge paradigms and illustrates the diversity of epistemological perspectives on risk. Lupton (1999a) outlines four major perspectives along an epistemological continuum: Technico-scientific, Risk society, Cultural/symbolic, and Governmentality (see Appendix B: Risk definitions and theoretical perspectives). These four risk positions are not discrete categories; they are located at different points on a continuum of philosophical positions between a realist and strong constructionist position (Lupton, 1999a; Strydom, 2002; Taylor-Gooby & Zinn, 2006). Placing the technico-scientific perspective on a realist pole of the continuum as it focuses on risk as an objective hazard, Lupton groups the other three perspectives as socio-cultural perspectives, as they all focus on risk as relative and socially constructed in varying ways. The following section introduces these four epistemological perspectives on risk and leads into the next chapter in which I use Lupton’s risk heuristic to map how risk has been conceptualized and linked to occupation in occupation-based literature.

1.3.1 Technico-scientific perspective

The technico-scientific perspective on risk has been predominant and taken-for-granted in many disciplines (Denney, 2005; Lupton, 1995, 1999a), although studies which employ this perspective rarely define risk or explicitly address epistemology. In line with a realist position, its key ontological assumption is that risk ‘is’; that is, risk is understood as an objective, neutral entity that pre-exists ‘out there’, independently from humans and their perception of risk. In turn, generating knowledge about risk is viewed as a technical, value-neutral matter achieved through empirical, scientific research. Such research aims to identify and measure risk and its properties and determinants, in order to predict and control risks and develop evidence-based interventions. Therefore, from a technico-scientific perspective, risk is defined as a measure combining “the probability and magnitude of an adverse effect” (Adams, 1995, p. 8). As risk is proposed to be objective and separate from value systems, the existence of risk, as seen from this perspective is generally beyond debate (O'Byrne & Holmes, 2007). However, the appropriate means to measure, calculate and subsequently manage identified risks are debatable.

A key aim within the technico-scientific perspective is to optimize the accuracy and techniques of risk assessment to determine the risks of, for example, engaging or not
engaging in a particular behavior. By doing so, technico-scientific researchers produce ‘webs of causality’ (Petersen & Lupton, 1996), which are translated into risk-reducing recommendations. A technico-scientific perspective on risk works from a particular hierarchy of knowledge in which subjective (lay) appraisals of risk are viewed as subordinate to objective (expert) assessments and measurements of risk (Douglas, 1990; Lupton, 1999a; Slovic, 1999). This knowledge hierarchy stems from an underlying assumption that individuals do not possess sufficient or ‘true’ information as they are easily biased by subjective perceptions, experiences, and values. This assumption creates need for experts to develop value-free and valid means of understanding and intervening.

Consequently, this perspective emphasizes bringing scientific knowledge into people’s everyday lives by informing and educating people, stressing ‘risk communication’ or ‘knowledge translation’. In such translation activities, human beings are often assumed to be rational and calculating actors who value objective knowledge gained through scientific methods and act accordingly (Lupton, 1999a). For instance, it is assumed that rational subjects will strive to minimize health risks by pursuing occupations proposed by experts as healthy (such as physical leisure activities) while avoiding occupations associated with poor health (such as smoking). Thus, a technico-scientific perspective on risk conceptualizes a linear relationship between risk, behavior, and risk reducing action: once a risk is identified and truly ‘understood’, there is a universal rational way to act that decreases risks. Since it is assumed that rational individuals are those who strive to adopt practices that prevent risks, the epistemological imperative is to uncover existing relationships between particular risks and specific activities, and to promote integration of risk-reduction practices into everyday life.

The technico-scientific perspective has been critiqued for its underlying assumption of risk as being ‘out there’, independent from human activity, perception and social and political contexts (Adam & Van Loon, 2000, Beck, 1986, 1992; Giddens, 1990). Another key critique is the perspective’s underlying assumption that individuals are independent, rational actors who predominantly act (or should act) based on knowledge, independent from socio-cultural and historical-political contexts (Douglas, 1990; N. Rose, 1999).
Next, I will introduce a perspective of risk that departs from technico-scientific risk perspectives.

### 1.3.2 Risk society perspective

First introduced by the German sociologist Beck (1986, 1992), the risk society perspective has also been elaborated to by the British sociologist Giddens (1990, 1991). Both theorists conceptualize risk as fundamental to the development of late modernity and its emergent social order (Jaeger, 2001). Beginning in the early 1990s Beck (1986, 1992) argues that contemporary Western societies entered a transitional period in which industrial society is entering a ‘risk society’. While industrial modernity was characterized by confidence in the possibility of safety, security, predictability, and the stability of traditional social categories (for example, class or gender), risk society is characterized by an all-embracing insecurity generated by uncontrollable risks, manufactured uncertainties, and processes of de-traditionalization. Fuelled by an ongoing drive for unlimited progress and rationalization, risks emerge as unanticipated, ‘side-effects’ of modernization processes. Therefore, risk, in this perspective, is understood as “a systematic way of dealing with hazards and insecurities induced and introduced by modernization itself” (Beck, 1992, p. 21, original emphasis).

Beck argues that the growing focus on risk in everyday life occurs not because the quantity of risks has increased but, rather, because of the “de-bounding” of a new type and quality of uncontrollable risks. While Beck’s early work was critiqued for being inconsistent in its ontological position on risk, he articulated in later works that he adopts both a realist and constructionist perspective on risk (Beck, 1999). Thus, while risks are viewed as socially-constructed through specific measurement and assessment techniques, socially-constructed risks have, at the same time, real and lasting effects on individuals and society (Beck, 1999; Zinn, 2008).
The risk society perspective proposes that modernization processes undermine the ontological security\(^2\) of humans and enhancing uncertainty in two different, but interlinked, ways. First, modernization has produced an essentially new type and quality of risks - such as nuclear, chemical, ecological, and genetic risks - that transgress spatial, temporal, and social boundaries (Beck, 2002). Second, modernization is associated with individualization processes that produce insecurities and new risks related to the configuration of individual biographies, life transitions, and formations of identity. Such processes lead to a categorical shift between the individual and society; it is now the individual, who becomes the “reproduction unit for the social in the lifeworld” (Beck, 1992, p. 130). An individual’s biography once understood as largely socially-prescribed, becomes viewed as reflexively self-produced. It becomes a “do-it-yourself biography” (Beck, 1992), a “planning project” (Beck-Gernsheim, 1996), in which potential risks need to be pro-actively minimized. Within such individualization processes, unfortunate events, such as unemployment or chronic illness, become transformed into personal failures, rather than being considered as societal problems (Beck, 1992).

In considering the potential contributions of the risk society perspective to the study of occupation, its boundaries need to be considered (Alexander, 1996; Lupton, 1999a). One relevant critique is that, in neglecting cultural diversity, Beck assumes universalizing tendencies of a value consensus in risk society (Denney, 2005; Tulloch & Lupton, 2003). A second critique highlights a lack of detail in historical analysis of how and why macro-level societal transformations have occurred. It is argued that Beck’s lack of historical grounding overlooks other aspects of the social world, since it regards current risk consciousness as an inevitable result of an historical logic (Denney, 2005; O’Malley, 2000; Zinn, 2008). Both of these critiques point to the next two perspectives on risk: a cultural/symbolic perspective that forefronts risk as a cultural and collective concept, and a governmentality perspective that addresses risk as a technique of governing linked to power.

\(^2\) Giddens (1990) defined ‘ontological security’ as “the confidence that most human beings have in the continuity of their self-identity and in the constancy of the surrounding social and material environments of action” (p.92, emphasis added)
1.3.3 Cultural/symbolic perspective

From a cultural/symbolic perspective on risk, Mary Douglas (1985, 1990, 1992; Douglas & Wildavsky, 1982) draws attention to risks as collective phenomena that are socially selected and constructed. She argues that concerns about risk are a result of cultural processes, and, thus, it is impossible to analyze risks without taking the uniqueness and values of the community in which the risks are perceived into account (Denney, 2005). Rejecting a technico-scientific risk perspective, but stressing the social, cultural, and political dimensions of risk, Douglas states that risk is “not only the probability of an event but also the probable magnitude of its outcome, and everything depends on the value that is set on the outcome” (Douglas, 1990, p. 10). Thus, from this cultural/symbolic perspective risk is understood as a social process in which “social principles that guide behaviour affect the judgment of what dangers should be most feared, what risks are worth taking, and who should be allowed to take them” (Douglas & Wildavsky, 1982, p. 6).

Consequently, risk is conceptualized not as independent from, but essentially about, values, morals, and politics. Highlighting the social influences that select particular risks for attention, Douglas attempts to explain why some dangers are identified as ‘risks’, while others are not. She proposes that risk is a modern strategy to deal with danger and otherness that serves to construct and maintain boundaries between individual and social bodies (Lupton, 1999a). Referring to risk allows social groups, organizations, and societies to deal with social deviance, maintain boundaries and achieve social order. As a powerful resource within normalization processes, risk can be understood as a modern blaming system (Douglas, 1992).

In emphasizing the cultural context of risks, Douglas rejects models of risk that explain individual behavior as determined by rational choice. Rather, Douglas argues that engaging in activities labeled as ‘risky’ by science and experts is not “a weakness of understanding. It is a preference” (Douglas, 1985, p. 103). Taking cultural values and belief systems into consideration, decisions regarding risk, and about occupation in relation to risk, cannot be considered as ‘irrational’ (Vahabi & Gastaldo, 2003). For example, an adolescent taking up the occupation of smoking might be well-informed and
aware of associated risks, but still engages in this occupation because of the social meanings attached to smoking in particular sub-cultures.

A cultural/symbolic perspective on risk highlights how different worldviews, mediated through value and belief systems and forms of social organization, generate different risk cultures. In this perspective, differences in risk assessment and risk acceptance between experts and lay people are not based on lacking or varying knowledge, but on fundamental ‘culture-clashes’ (Lupton, 1999a). Since risk represents collective belief systems, relative to culture and social position (Rosa, 1998), knowledge about risk is viewed as a social product, situated in a circumscribed social context.

As shown, a cultural/symbolic perspective on risk enables occupational scientists to move beyond a sole focus on individuals to consider risk as a socio-cultural concept. However, it has been critiqued for an over-emphasis on culture and for subsequently not attending adequately to the impact of social structures and personal traits on risk definitions and responses (Denney, 2005; Tulloch, 2008). A governmentality perspective on risk takes this critique of neglecting hidden relationships between power, social position, and collective claims on risk further, in that it focuses on risk as a technique to govern the conduct of individuals and groups.

1.3.4 Governmentality perspective

Because I take a governmentality perspective in this research, the subsequent section attends primarily to how governmentality has been used to understand risk. How this perspective further informed the critical discourse analysis study conducted for this thesis is outlined in further detail in chapter three of this dissertation.

Governmentality perspectives on risk draw on the work of Michel Foucault and his analysis of governmentality (see e.g., Foucault, 1977, 1991, 1994). Governmentality points to questions of how government, the “conduct of the conduct” (Foucault, 1993), occurs in everyday life. Government encompasses the various attempts that are made to shape, guide, or direct the conduct of others, as well as the conduct of the self, towards
certain ends. Hence, a governmentality approach situates risk as a particular ‘thinking style’ to govern individuals, as well as a type of technology of government.

From a governmentality perspective, risk is seen as part of the ways in which social authorities govern the conduct of individuals and collectives, through prompting them to consider the risk of their actions and to operate on the basis of a rational, responsible approach to risk (Denney, 2005; Hunt, 2003; Lupton, 1999a). From this perspective, risks are not produced through new technologies as Beck forefronts; rather they are seen as a technology that produces and maintains power relationships, particular types of subjectivites, and particular types of conduct. As Castel (1991) states,

risk does not arise from the presence of particular, precise danger embodied in a particular concrete individual or group. It is the effect of a combination of abstract factors which render more or less probable the occurrence of undesirable modes of behavior (p.287).

Thus, from a governmentality perspective, risk is a technology that is used to represent events or actions in ways which construct particular ways of thinking and acting as ideal and possible. Within this perspective, risk becomes a way of ordering reality so as to shape action in ways that align with the values and aims of authorities. Therefore, risk is seen as a calculative technology and political rationality intimately connected to power; risk facilitates patterns of self-regulation that (re)produce power relations. Emphasizing the notion of risk as shaping a particular reality for particular purposes, Dean (1999b) states:

There is no such thing as risk in reality. Risk is a way – or rather a set of different ways – of ordering reality, of rendering it into a calculable form. It is a way of representing events so they might be governable in particular ways, with particular techniques and for particular goals. It is a component of diverse forms of calculative rationality for governing the conduct of individuals, collectives and populations (p.131).

Governmentality scholars also pay attention to discourses, as discourses are conceptualized as identifiable ways of giving a particular meaning to reality through languages, ideas, and images, based within a bounded body of knowledge, tied to particular political rationalities and associated social practices (Fairclough, 2001; N. Rose, 1999). Like risk society theorists who point to the increasing individualization of
risks in late modernity, governmentality theorists draw attention to the contemporary importance of the role of risk in promoting self-management through discursive means. Governmentality theorists, such as Dean (1997), O'Malley (1996), and N. Rose (1999) have linked shifts from socialized risk management to an increasing self-responsibility for avoiding and managing risks to the political rationality of neo-liberalism. Neo-liberal approaches to government highlight a recession of the welfare state and emphasize individual responsibility, autonomy and self-reliance (Laliberte Rudman, 2012; Lupton, 1999a). Taking a governmentality perspective draws attention to processes in which the rationality of risk is used to render particular conduct, behaviour, or subjects as ‘at-risk’ - or as ‘risky’.

1.4 Summary

In this chapter, I have argued that considerations of risk have become pervasive features of everyday life in contemporary Western society, often drawn upon to highlight individual responsibility in choosing and pursuing one’s occupations so as to avoid risk. I expound that attending to how risk shapes people’s occupations within their daily lives is imperative to further understanding of how occupation is shaped within contemporary society and how ideas about occupation produce and reinforce inequalities. Given that numerous definitions of risk exist, it is relevant to reflect on the ways constructions of risk are privileged, since risk definitions are inherently connected to power, which, in turn, points to the necessity of critical reflexivity regarding the ways how risk is attended to in occupational science. The previous section, based on the work of Lupton’s risk heuristic (Lupton, 1999a), outlined four epistemological perspectives on risk and demonstrates how these perspectives lead to different definitions of risk which inform research and action differently. Indeed, when researching risk and occupation, it can make quite a difference whether we interpret risk as a result of new and recent types of risks we have to face, as a change in style of governance, as caused by an increasingly differentiated society, as a response of alienating conditions of living, or as a problem of diverse cultural interpretations (Zinn, 2008, p. 2).

The next chapter presents a scoping review of occupation-based literature that addresses risk has been conceptualized and related to occupation. It demonstrates the predominance
of a technico-scientific perspective in this literature. In turn, the need for epistemological expansion is attended to, and the case used to apply a governmentality perspective to the study of risk and occupation is introduced.
Chapter 2

2 Mapping the study of risk in the occupation-based literature: A scoping review

2.1 Introduction

In chapter one, an overview of four possible epistemological perspectives on ‘risk’ was provided. This chapter two presents a scoping review of peer-reviewed occupation-based literature in which these epistemological perspectives are drawn upon to understand how ‘risk’ is currently linked to occupation in occupational science. Based on my analysis, I discuss implications that I see as vital for risk conceptualizations and the study of risk and occupation in occupational science. The chapter ends by introducing the case of the aging driver that is drawn upon within the remainder of this thesis.

2.2 Scoping review

Scoping reviews are “concerned with contextualizing knowledge in terms of identifying the current state of understanding” (Anderson, Allen, Peckham, & Goodwin, 2008, p. 10). Within the subsequent review, my focus was on identifying the current state of conceptualizing the links between occupation and risk within the occupation-based literature, and to consider the epistemological perspectives on risk informing such work. Two questions guided this review:

1. How is ‘risk’ conceptually linked to occupation in peer-reviewed literature on occupation?
2. Which epistemological perspectives on risk inform this peer-reviewed literature?

2.2.1 Methods

Drawing on Arksey and O’Malley’s (2005) methodological framework for scoping reviews, the review included five stages: identifying the review’s research question, identifying relevant literature, selecting literature, charting and analyzing the data, and summarizing and reporting findings. To establish a clear and feasible scope (Levac, Colquhoun, & O'Brien, 2010), I carried out a comprehensive search of relevant literature published between 2008 and 2012 in 17 occupational science and occupational therapy
journals. At this point in time, the discipline of occupational science has only one discipline-specific journal, the *Journal of Occupational Science*. For that reason, the scope of this review also included occupational therapy journals. This extension was reasonable given that the discipline of occupational science and the profession of occupational therapy share a common understanding of occupation. Hocking and Wright-St. Clair (2011), for instance, state that:

> occupation [in occupational science], is conceptualized in the same way occupational therapists around the world understand it, whether framed as work, self-care, leisure, rest and play or more generically as ‘the ordinary and familiar things that people do every day’ (p.29).

Using two electronic databases, Scopus (inclusive of MEDLINE) and CINAHL (Cumulative Index to Nursing and Allied Health Literature), 17 relevant peer-reviewed journals were identified. Literature published in the English language in one of these journals over a five year period (Jan. 2007 – Nov. 2012) that referred to ‘risk’ (in title, abstract, or keyword) was retrieved. The search was limited to research articles, theoretical papers and literature reviews. Editorials, position and opinion papers, commentaries and critical appraisal papers were excluded.

In total, the database search produced 177 references. The abstracts of all references were read to select relevant articles. If relevance was unclear from the abstract, the article’s full text was read. At this stage, only literature that linked risk to occupation was included for further analysis. To be included in the review, an article needed to state a clear focus on occupation, defined as ‘the ordinary and familiar things that people do every day’ in its abstract. Given the lack of consistent use of terminology within occupational science and therapy (Creek & Hughes, 2008), abstracts were also included if they used synonyms for occupation, such as ‘activity’, ‘participation’, ‘activities of daily living’, or if they pertained to an occupation but did not explicitly name it as such (for example, working, caregiving, or bathing). Abstracts were excluded if they focused *primarily* on the conduct of occupational therapy practice. For instance, excluded articles focused on the development and psychometric properties of particular risk assessments scales, or on an

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3 Medical Literature Analysis and Retrieval System Online
occupational therapy intervention to prevent risks. Many articles referred to the risk of falls for older adults. Here, an article was excluded, if it focused primarily on the occurrence of a fall or on functional deficits leading to a fall. However, if the fall was related to occupation, such as an occupation being a risk factor for falls, an article was included. The decision of whether an article focused primarily on occupation or primarily on something else, such as a type of event or a medical condition, was not always clear. In such cases, I discussed the article with my doctoral supervisor to reflect on my rationale for an article’s inclusion or exclusion. As common in scoping reviews, the quality of the included literature was not assessed (Levac et al., 2010), as the purpose of this scoping review was not to evaluate research evidence with regard to risk and occupation. Rather, the purpose was to understand how risk and occupation were related and how risk was conceptualized. The refined search left 76 articles. Full texts were downloaded and entered into a reference management software package (EndNote, Version X5), which allowed electronic searches across articles for specific words or phrases. After a first reading of each full text, another 12 articles were excluded for not meeting the inclusion criteria, three articles could not be accessed (Israel Journal of Occupational Therapy), leaving a total of 61 articles for review. For a reference list of the included articles, see Appendix C.

Analysis focused on how risk and occupation were related and how risk was conceptualized. An analysis sheet containing categories, such as risk description and causation, at-risk group, relation of risk and occupation, and suggested implications of risk, was used to systematically extract data that referred to the review’s research questions. Lupton’s risk heuristic (described in the previous chapter) was used to identify a paper’s underlying epistemological position on risk. I also used qualitative data analysis techniques (Maxwell, 2005), including content and thematic analysis, to collate, summarize and thematically organize the data.

2.2.2 Findings

Within the literature of this review, the relationship between risk and occupation was conceptualized in four major ways: ‘occupation as a risk’, ‘occupation as a marker for risk’, ‘occupation to prevent risk’, and ‘occupation at risk’. All reviewed articles could be
categorized as employing at least one of these conceptualizations, with some articles employing more than one. For instance, some articles emphasized driving as a ‘risky’ occupation for older adults, but also noted that their engagement in everyday activities is ‘at risk’ if driving is given up without ensuring community mobility; this then, in turn, was seen as associated with increased risk for depression (Dickerson, Reistetter, Davis, & Monahan, 2011; Vrkljan et al., 2010).

Although varying types of relationships between occupation and risk were identified, this review found that a technico-scientific perspective on risk is dominant, regardless of the implied type of relationship between risk and occupation. Informed by a technico-scientific understanding of risk, the analyzed literature mostly conceptualizes the relationship between risk and occupation essentially as a linear cause-effect relationship. Everyday doing is viewed as generating, minimizing or preventing risks and as a ‘modifiable variable’ that can be shaped to work against potential negative effects of one’s doing. Therefore, the literature promotes that acting upon one’s occupation can reduce and control risks. In this body of occupation-based knowledge, risk is taken as something objective and identifiable through scientific measurement and researchers aim to generate new knowledge about occupation and risk that can inform practices to reduce risk. In the majority of articles, the relationship between risk and occupation was solely stated as a fact, but not further elucidated and elaborated. That is, authors commonly demonstrated that previous research had found evidence for a relationship between the two, or between occupation and health, but otherwise assumed that readers shared their understanding of this relationship (e.g., “Evidence has suggested that drivers with arthritis... have a higher risk for crashes and traffic violations... although not all studies have found an association”, Vrkljan et al., 2010, p. 259). The following section outlines the four most common relationships between risk and occupation that were found and points to some key epistemological risk assumptions (see Table 1, Linking risk and occupation).
2.2.3 Occupation as a risk

The first group of articles related risk and occupation by emphasizing occupation itself as a risk, commonly as a risk to health. While occupation was generally assumed as being beneficial to achieve health and wellbeing, authors, who draw upon the idea of ‘occupation as a risk’, underlined that engaging in particular occupations also contained risks. Within this body of literature, there were three main ways in which occupation was constructed as a risk.

Some occupations are risky by their nature

First, some occupations were assumed to be risky by their nature. In this group of literature, the specific nature of the occupation, such as working (Dyrkacz, Mak, & Heck, 2012), caregiving (Pickens, O'Reilly, & Sharp, 2010), skateboarding (Haines, Smith, &
Baxter, 2010), or watching television (Dwyer, Baur, Higgs, & Hardy, 2009), placed subjects at risk. Risk was located within an occupation’s specific characteristics, demands, and tasks. For instance, some articles in this group identified ‘working’ in health care as carrying risks for work-related injuries and disorders (Darragh, Huddleston, & King, 2009; Dyrkacz et al., 2012; Rice, Dusseau, & Miller, 2011), with occupational therapy and nursing framed as a “high-risk occupation” (Rice et al., 2011, p. 95). Other articles discussed certain types of play and leisure occupations as placing children at risk for ill-health. Risky occupations for children included, for instance “small-screen recreation, which includes television viewing, computer usage, and handheld small-screen games” (Dwyer et al., 2009, p. 32) and “sedentary unstructured pursuits” (Poulsen, Ziviani, & Cuskelly, 2008, p. 35). Such occupations were constructed as exposing children to health risks, particularly obesity.

In this group of articles, individuals are usually healthy subjects. They become part of an ‘at risk’ group by performing the risky occupation regularly or by being ‘exposed’ to the occupation’s inherent risks. Dyrkacz et al. (2012), for instance, list several risks related to the nature of health care work: “each year in Canada, healthcare workers are exposed to numerous work-related hazards. These range from needle-stick injuries, contraction of infectious diseases, physical injuries associated with patient handling and transfers, working alone, ever-increasing job demands, violence, and stress” (p. 237). The conceptualization of some occupations as risky by their nature, takes for granted that the occupation, as well, as the at-risk subject, exist and perform in somehow universal and usually predictable ways. The various factors making an occupation risky and an individual vulnerable to risk pre-exist and can be discovered through scientific research and measurement. Darragh et al. (2009), for instance, measured how time was a factor affecting the relation between a risky occupation and vulnerability to injury; they found that workers “with injuries worked approximately 4 hr more per week than those without injuries” (p. 356). This example illustrates how a technico-scientific risk perspective, although used to analyze the specific components that made an occupation risky (e.g., that it involved patient lifting), draws attention to the individual and how he or she carries out the occupation.
**Deficient occupational performance presents risk**

In another group of literature, the occupation itself was not inevitably risky, but became risky when subjects performed it in ways which lacked certain qualities and failed to meet established or safety standards. In this way of relating risk to occupation, a particular group of individuals becomes vulnerable to risk due to deficits in their occupational performance. The underlying key assumption is that ‘normal’ subjects - often used as a control group - perform the occupation in normal and safe ways. Authors in this group, for instance, found that older adults performed the occupation ‘driving’ in an unsafe way; they were found to have a higher risk for crashes, made age-related driving errors, or might have lost their driving fitness (Classen, Awadzi, & Mkanta, 2008; Shaw, Polgar, Vrkljan, & Jacobson, 2010; Vrkljan et al., 2010). However, driving in itself was implicitly constructed as an occupation that was usually safe; the assumed normal driver drives faultlessly, and driving in itself thus does not create considerable risks.

Reasons for a risky performance were mainly assumed to reside within the person, such as having a medical condition (Poulsen et al., 2008), getting old (Classen, Winter, & Lopez, 2009) or lacking information (Fisher, Brodzinski-Andreae, & Zook, 2009). For instance, Cordier, Bundy, Hocking, and Einfeld (2010), investigating the play of children with ADHD and their playmates, stated that their collective play lacked certain qualities, such as “empathy (i.e., caring, sharing, cooperating, helping others, generosity, compliance, and supporting others)”(p.197). The authors view the lack of particular qualities within how the children were playing as a risk to maintaining (ADHD child) and developing (playmate) negative behavior (“results suggest that both children with ADHD and their playmates tend toward decreased prosocial behaviour - at least when they are playing together”, Cordier et al., 2010, p.197).

This literature commonly focused on subjects with a medical condition or disability, but sometimes also on subjects, who did not have a medical condition. However, these subjects were still ‘lacking’ something in their performance that was expected to be ideally there. Thus, their lack made the described occupation risky. For instance, a lack of professional identity within occupational therapists was viewed as a risk for job-related
stress and burn-out (Edwards & Dirette, 2010), and a lack of information about safe patient handling as a risk for work-related injuries (Frost & Barkley, 2012). Therefore, when deficient performance turned an occupation into a risky one, the underlying technico-scientific perspective drew attention to the subject, subsequently constructed as somehow deficient. That is, the contexts, which shaped the occupation, were usually unquestioned. For instance, while certain work contexts were analyzed as containing risk factors for ill-health, the main focus was geared towards the at-risk worker assumed as being able to overcome this risk factors if he or she was enabled to gain certain qualities (Fisher et al., 2009).

An imbalance in everyday occupation contains risk

A third way of constructing ‘occupation as a risk’ involved problematizing occupation as a risk when daily occupations occurred in non-normal ways, such as when people engaged in occupation ‘too much’, ‘too little’, or in ‘disordered patterns’. This was frequently termed as an ‘occupational imbalance’ and viewed as a risk to health. Andersson, Eklund, Sundh, Thundal, and Spak (2012), for instance, examine the relationship between women’s everyday occupation and their alcohol consumption. The authors identified distinctive patterns in which women engaged in their daily occupations. Some patterns were found to be more risky than others and placed women at high risk for ill-health, as they showed “significant associations with problematic alcohol consumption” (p.225). Hence, Anderson and colleagues argue that new approaches to prevent ‘high risk drinking’ in women required more than solely focusing on drinking behavior, but also needed to consider what at-risk women did over the course of a day as certain ‘patterns’ of everyday occupation carried risks for problematic drinking.

Literature which constructed an occupational imbalance as holding health risks presupposed an optimal level, variety, and time of engaging in occupation, which was assumed to exist for all individuals and as essential to meet health needs (C. Craik et al., 2010; Creek & Hughes, 2008; Yu, Ziviani, Baxter, & Haynes, 2010). For instance, Yu et al. (2010) suggest that children should have “optimal levels of engagement in activities, which provide physical exertion, structured experiences and social engagement” (p.285). Risks therefore occur when a subject’s occupations deviate from the supposed ideal level
and balance of engagement. Leufstadius and Eklund (2008), for instance, framed ‘too 
less’ engagement in occupation as problematic for individuals with persistent mental 
ilness (PMI). The researchers identified “risk factors for [occupational] imbalance” 
(p.23), such as spending little time in work, spending long periods asleep, and having an 
adverse daily rhythm. Leufstadius and Eklund (2008) suggested facilitating individuals 
with PMI to improve their occupational balance as this could lead to “fewer symptoms 
and to perceptions of better health and well-being” (p.32). Likewise, Maloney (2011) 
argued that ‘too much’ engagement in “high-risk drinking” by college students placed 
them “at risk for physical, psychological, or occupational dysfunction” as it frequently 
evolved into a serious and sole leisure hobby.

Literature framing disordered and irregular engagement in occupation as risky primarily 
focused on individuals’ specific ‘risk profiles’. Occupational imbalance in everyday 
activity (such as between restful and active occupations) was viewed as a major risk for 
il-health. Commensurate with an approach to knowledge generation informed by a 
technico-scientific perspective, authors highlighted the need to add risks related to 
occupational imbalance to already known risk factors.

Subjects who were found to have a risky occupational imbalance, were constructed as 
subjects who cannot yet, or have lost the capability to manage themselves and their 
occupations in assumed appropriate and beneficial ways. They were, for instance, 
children, mental health care patients, had a drinking problem, or loved a dying relative 
too much (Pickens et al., 2010). At-risk subjects were framed as requiring assistance by 
an occupational expert, who could draw on research results to enable them to make 
healthier and more ‘balanced’ choices in their daily doings.

Summary and epistemological underpinnings

In sum, the first group of literature in which occupation was constructed as risky, linked 
risk and occupation in three main ways: particular occupations are constructed as 
naturally risky; an otherwise harmless occupation can become risky when subjects 
perform it in non-normal ways; and, engaging in occupation is risky when a subject’s 
daily occupations are ‘out of balance’ and followed unhealthy patterns.
The dominance of a technico-scientific perspective on risk is evident in this group of literature. Literature described how certain doing leads to ‘occupation-related ill-health’ (Andersson et al., 2012, p. 226) in a cause-effect relationship. It was implied that negative effects of engaging in occupation can be avoided by gaining scientific knowledge about occupation-related risk factors and subsequently modifying and controlling them, so that the occupation becomes ‘safer’. Therefore, authors focused on discovering all factors that ‘made’ certain occupations risky. Risk was approached as an objective, measurable and predictable phenomenon, which could be identified and located through scientific research. As well, the assumption that there are normative, and less risky, ways of performing, choosing and balancing occupations can be seen as based on the notion of risk as universal, objective, and context-free. For instance, with regard to work-related injury, risks were located ‘in the lower back’, but using ‘proper body mechanics’ in working could reduce the risk of the risky occupation (Fisher et al., 2009). It was assumed that researchers, by systematically investigating occupation and fully understanding how it functioned, could separate and locate the distinct factors and ‘mechanisms’ that make certain occupation risky (e.g., “The three most common mechanisms of injury included task repetition, working in… static body positions, and… a high workload”, Rice et al., 2011, p.96). In line with a technico-scientific perspective, the risky occupation was often operationalized and each element systematically analyzed in order to understand all causal factors and their inter-relationships.

Having precise knowledge was, in turn, assumed to inform effective ways to modify risk factors inherent in occupation; being knowledgeable was viewed as being able to protect especially vulnerable body parts or at risk groups. Having evidence-based risk knowledge about one’s occupation is assumed to protect subjects against ill-health, because informed and rational subjects will shape their occupation accordingly (“Understanding risk factors… assists workers in avoiding these factors”, Fisher et al., 2009, p.450). The linear equation that an increase in knowledge will lead to a decrease in ill-health is typical for a technico-scientific perspective and was adopted by many authors (“injury prevention education… would result in an increased knowledge…which could result in a decrease in the number of injuries at work”, Fisher et al., 2009, p.451). In line with this risk perspective, which is based on the belief that humans can master and overcome their
environment and its dangers through increased knowledge, authors presupposed that subjects have power to overcome risks inherent in ‘their’ occupation through ‘their’ levels of knowledge.

2.2.4 Occupation as a marker for risk

In a second group of articles, risk and occupation were conceptually linked by constructing occupation ‘as marker for risk’. Authors promoted the opportunity to proactively identify ‘high-risk’ subjects by observing their everyday activities for distinct abnormalities. Early detection of high-risk subjects through their occupation was emphasized as beneficial for targeted intervention, evidence-based clinical decision-making and effective risk management. The conceptualization of ‘occupation as a marker for risk’ is based on an assumption of normative ways of doing occupation. Hence, abnormalities within a subject’s occupation offer valuable clues to detect or confirm a subject’s existing health problem and risk. When constructing ‘occupation as marker for risk’, authors commonly suggested focusing on one of two subsequent ‘normal’ qualities of a subject’s occupation.

At-risk individuals can be identified by deviances in occupational performance

First, some authors claimed that at-risk individuals could be identified through observing their occupations. For instance, Dickerson et al. (2011) suggested that distinct quality deviations in everyday activities could be used to identify at-risk drivers. The researchers compared results of an occupation-based clinical assessment, frequently used to measure an individual’s skills to perform everyday activities, with an on-road driving assessment. Discovering significant relationships between the “the process skills from the performance assessment and whether the driver passed, failed, or needed restrictions as indicated by the behind-the-wheel assessment” (p.64), the authors raised the question of why everyday activities have been regularly assessed to determine clients’ risk of “living alone or managing finances, but stopped short of driving?” (p.68). Since occupational therapists are skilled in assessing occupation, they “should be able to accurately determine who is not at an elevated risk for unsafe driving, who should cease to drive
until functional performance has improved, and who needs further evaluation by a specialist” (p.66). Thus, Dickerson et al. (2011) called upon occupational therapists to habitually screen all clients for driving safety when assessing everyday activities. Likewise, Mulligan and White (2012) proposed occupational performance as a means to detect high-risk subjects. These researchers observed the play and feeding of infant siblings of children with autism spectrum disorders (ASD). As siblings are considered to be at high-risk for having the disorder as well, the researchers aimed to find early markers of ASD in the infants’ occupations. By researching which particular deviances in play and feeding were ‘typical’ for infants, who were later diagnosed with ASD, Mulligan and White hoped to one day be able to determine the risk for ASD by observing an infants’ doing.

**At-risk individuals can be identified by deviant occupational patterns and choices**

Second, deviances in occupation, serving as markers for at-risk individuals, referred also to a subject’s patterns, level, and choices of occupation. For instance, it was suggested that deviations in ‘activity levels’ could be used to identify at-risk individuals. Leufstadius and Eklund (2008) aimed “to identify factors indicative of an imbalanced pattern of daily activities, which could be used to identify those in special need of support” (p.23), whereas Dwyer et al. (2009) called upon pediatric therapists to routinely screen children’s “habitual level of physical activity and sedentary behavior”(p.29) to identify high-risk children.

Authors also proposed screening the type and nature of activities to find high risk individuals who would benefit from early intervention. For instance, Yu et al. (2010), investigating risk factors for CoP (conduct problems) in children, found that “boys who spent time riding bikes had a 70% higher risk of experiencing CoP than those who did not engage in this activity” (p.289). Boys were also identified as having a higher risk for CoP if they spent more than two hours on a weekend day in exercise activity. Because children who spent more time in risk-oriented physical activities were found to be more vulnerable to the risk of developing CoP, Yu et al. stressed the importance of screening leisure preferences and activities to identify those in need of early intervention. Similarly,
Poulsen, Johnson, and Ziviani (2011) examined the out-of-school activities of boys with developmental coordination disorder (DCD) to “determine potential patterns of vulnerability” (p.96). In this research, “leisure-time activity participation was used to define different risk groups” (p.95). Boys at lower risk, for instance, participated in specific activities, such as choir, band, drama or chess club, characterized as ‘structured, low physical group activities’. Poulsen et al. (2011) argued “to consider occupational performance data about everyday leisure-time activity participation (...) when prioritising services for boys with DCD” (p.98).

Summary and epistemological underpinnings

In sum, literature constructing ‘occupation as a marker for risk’ viewed occupation as something that usually occurred in normative and predictable ways. Therefore, it was argued that occupation should be screened to identify individuals more at risk than others. Parallel to medical symptoms informing a diagnosis, this literature emphasized patterns of irregularities and deviances in a subject’s occupation as predictive of risk. When constructing ‘occupation as marker for risk’, authors commonly suggested searching for risk markers in a subject’s ways of doing, levels or patterns of doing, and choices of doing.

The predominance of a technico-scientific perspective is also evident within this group. For instance, as typical for a technico-scientific risk perspective, this literature underlined that scientific risk knowledge will enable taking best action. Therefore, it was promoted that the more accurate and earlier one could determine an individual’s at-risk status, the more successfully and effectively one could prepare and act. This literature in particular underlined the pivotal role that scientific knowledge and experts play within a technico-scientific perspective. Literature stressed how knowledge about occupation, provided by experts, could enrich current risk knowledges and risk assessments. This group aimed to

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4 In line with the study’s theoretical frame I am using the term ‘knowledge’ in the plural form. Foucault “normally spoke about knowledge in the plural (savoirs) in order to illustrate the notion that specific form of power required highly specific and detailed formations of knowledge” (Turner, 1997, p.xiii).
provide evidence-based knowledge about occupation as a predictor for risk. Such knowledge could be used for decision-making predicated on risk, such as if an older adult could still drive, or which children with disabilities most needed early intervention.

Authors who suggested screening occupation as a possibility to identify at-risk individuals take a highly individualized perspective on occupation. Here, occupation becomes almost a subject’s individual attribute. That is, it is assumed, that non-normal ways of doing reference non-normal subjects. Measuring individual occupational engagement and comparing it to implied standards to identify risk draws attention to the at-risk individual. Informed by a technico-scientific risk perspective that aims to identify and measure, occupation, thus was framed as indicative of an individual’s characteristics and risk status.

2.2.5 Occupation to prevent risk

A third major group of literature linked risk and occupation by framing occupation as a means for, and valuable site of, risk reduction and health promotion. At times, such literature explicitly suggested expanding the role of occupational therapy and taking up the profession’s “renewed paradigm shift towards wellness and health promotion” (Pickens et al., 2010, p. 234). Authors within this group emphasized the potential of everyday occupation to improve the risk resilience of at-risk individuals. ‘Occupation to prevent risk’ was constructed in two main ways.

Occupation can be implemented to reduce risk

First, some articles proposed that a specific occupation could be implemented to decrease risks in a challenging environment. For instance, Bacon, Farnworth, and Boyd (2012) researched the Wii Fit as “a meaningful occupational intervention” (p.61) in a secured forensic setting to assist forensic mental health patients “to engage better in physical activity within their secure environment” (p.67) in order to reduce their high risk for obesity and occupational imbalance. Similarly, Case-Smith, Sines, and Klatt (2010) researched engaging in Yoga “as a preventive intervention to reduce stress and improve behavior in students at risk for learning problems” (p.226) in a disadvantaged neighbourhood. Based on their study, the authors proposed that “yoga poses and
exercises, relaxation, and meditation have the potential to reduce anxiety and stress and to enhance self-efficacy for at-risk students” (p.237). Implementing such an occupational intervention was often conceptualized as changing the at-risk subject’s attitude, behavior, or beliefs positively; these changes were viewed as a prerequisite for long-lasting risk reduction. For example, in the research presented above, playing the Wii Fit enabled an ‘attitudinal shift towards enjoying exercise’ and engaging in Yoga enhanced ‘self-efficacy’.

**Occupation can be altered and re-balanced to prevent risk**

A second way of constructing occupation as a means for risk prevention was the suggestion to draw upon everyday occupations, in which subjects were already engaged, to enact risk-reduction and enhance ‘protective factors’. Such literature emphasized that subjects can be educated and guided to use their daily occupations, outside of clinical contexts, as a means to work on themselves in order to become less vulnerable to risk and to maintain health. Clemson et al. (2010), for instance, developed a fall intervention program to teach older adults to transform particular activities into risk-reducing ‘workouts’, such as improving their balance and strength by “placing regularly used items on a high shelf” (p.44), choosing “one leg standing while at the kitchen bench or ironing” (p.43), or “leaning to one side as far as possible while cleaning your teeth” (p.43). Other authors suggested counseling parents about how to shape family occupations and their children’s play for risk prevention (Dwyer et al., 2009). Yu et al. (2010), for instance, argued that the nature of children’s occupation and “the time children spent with their family (...) can also serve to buffer environmental risk factors” (p.285), because “family time is usually thought to be protective against the development of CoP [conduct problems]” (p.286). These authors also suggested including more occupations with fathers into the lives of at-risk boys as the “type of play in which fathers engage with sons” (p.290) seemed to have protective effects (Yu et al., 2010). Other authors stressed the preventative effects of achieving and maintaining a healthy occupational balance (C. Craik et al., 2010; Creek & Hughes, 2008; Pickens et al., 2010). Since imbalanced occupation, as already described, is viewed as a substantial risk to health and wellbeing, this literature suggested optimizing an individual’s occupational balance through offering
physical activities, facilitating personally meaningful occupations, or enabling a broader variety of occupation.

Summary and epistemological underpinnings

In sum, literature constructing ‘occupation to prevent risk’ linked risk and occupation by arguing that occupation can be employed in the service of risk reduction and is a valuable site of health promotion. Three common ways to prevent risks were identified: implementing specific occupations in disadvantaging and restricted environments, targeting occupation as a site for self-improvement, and balancing a subject’s daily occupations to achieve better health and well-being. Informed by a dominant technico-scientific risk perspective, it was claimed that risk could be prevented if individuals ‘did the right things’, either by their own choice, or with the help of others, who provide missing knowledge and skills to become able to make ‘right’ choices. In line with a technico-scientific perspective, it was assumed that individuals can create and achieve positive and protecting effects through the skillful use and knowledgeable deployment of occupation-based, scientific knowledge.

Although the literature acknowledged that subjects living in challenging environments are more vulnerable to risk than subjects living in ‘normal’ environments, occupational interventions commonly targeted at-risk individuals. While environments were often carefully analyzed in relation to their negative influence and limiting effects on at-risk subjects’ occupations, the environment was frequently reduced to a ‘barrier’ or presented as another ‘risk factor’ to be overcome and reduced by the subject. That is, although the risky living environment was acknowledged as placing subjects at risk, it was at most taken-for-granted and constructed as immutable.

Thus, similar to the above categorization, the field of action was mainly geared towards the individual and his or her doing. Occupation was ‘brought in’ as an intervention to ‘fix’ and compensate for environmental and personal shortcomings. For instance, while particular contextual factors were viewed as disturbing or endangering occupational
balance, contexts were not approached as ‘imbalanced’\textsuperscript{5}. Therefore, in alignment with a technico-scientific emphasis on changing individuals, contexts were not the primary focus of suggested risk interventions.

Informed by an underlying technico-scientific belief that risks can be overcome through knowledge and right choices, subjects were assumed to be ‘enabled’ to develop the required skills or knowledge to master their risky environment (and themselves) in a health promoting way. Therefore, using occupation in the service of prevention often aimed to ‘equip’ individuals better for the risks they faced; such as by enabling children, living in stressful urban settings to become more stress resilient by learning Yoga relaxation techniques, by enabling forensic patients, living in a limited space to become more exercise-loving, or by educating older adults at risk for falls how they could overcome risk factors, located in their bodies, through training. While such enabling intervention might be done with best intentions, it again shifts the perspective towards the individual and away from the contexts that places subjects and their occupational engagement at risk. Moreover, as in the previous two groups, by focusing the subsequent intervention on the at-risk individual, at-risk individuals were implicitly framed as deficient. They were ‘lacking’ something that experts could offer and help to gain, such as knowledge, motivation, self-control and self-efficacy, so that at-risk subjects could make the right occupational choices.

2.2.6 Occupation at risk

A last main group of articles stressed the idea that the possibility to engage in occupation was ‘at risk’. Literature in this group drew attention to certain individuals or groups of individuals whose occupations were at risk of being lost, reduced or restricted, in turn creating risks to health and social participation. Authors commonly highlighted ‘occupation at risk’ to be caused by the two subsequent conditions.

\textsuperscript{5} For the only exception, see Townsend (2012): “occupational imbalance [is], when some groups have too much to do and others, such as adults with identified mental health issues, have too little to do” (p.16).
Engagement in occupation can be at risk due to an individual health condition

First, occupation was conceptualized as being ‘at risk’ when individuals experienced particular medical conditions, such as psychosis (Krupa, Woodside, & Pocock, 2010), multiple sclerosis (MS) (Peterson, Kielhofner, Tham, & Von Koch, 2010) or low vision (Laliberté Rudman, Huot, Klinger, Leipert, & Spafford, 2010). Depending on the type of the condition, limitations in occupational engagement happen slowly, can be irreversible, or are self-chosen to avoid additional health risks. Krupa et al. (2010), for instance, identified the time following a first episode of psychosis as “a high risk time for the disruption of and disengagement from important activities and social interactions” (p. 15). The authors suggested that minimizing this risk and being able to “reconnect with previous patterns of activity and social participation” (p.15) requires individuals to manage six critical tasks, such as planning for and developing a daily balance in their occupations. Other authors described how living with a chronic or progressive condition, such as low vision or MS may put an individual at risk for increasingly experiencing occupational restriction and loss. Laliberté Rudman et al. (2010), for instance, found that older adults with low vision experienced “a constant struggle to maintain engagement in valued and necessary occupations” (p. 90) and Peterson et al. (2010) reported that participants with MS managed their increased risk of falls by always focusing first “on how they would do so without unduly compromising their involvement in their routine and valued activities” (p.151).

Engagement in occupation can be placed at risk due to certain living contexts

Literature in this group also focused on certain living contexts as limiting a group of subjects’ opportunity to sufficiently engage in occupation, placing their occupation at risk. Limiting living contexts were mostly taken as immutable and researchers in this group again sought to understand how subjects could be enabled to overcome contextual risk factors to occupational engagement. Green, Boger, and Mihailidis (2011), for instance, noted that older adults in Canada were at risk for becoming socially isolated during Canadian winter. Based on previous research which “found that the increased risk
of social isolation during winter for the elderly population was largely due to the inconveniences associated with winter clothing” (p.58), the researchers scientifically developed and tested an ‘easy-to-put-on’ winter coat that could “enable participation in winter activities and decrease the risk for social isolation during winter for functionally impaired older adults” (p.58). Other authors proposed that certain types of children’s occupations were at risk within particular contexts. For instance, authors described a low-socioeconomic neighborhood (Case-Smith et al., 2010), an overprotected family environment (Dahan-Oliel, Majnemer, & Mazer, 2011), or an Ultra Orthodox Jewish subculture that valued studying (Golos, Sarid, Weill, Yochman, & Weintraub, 2011) as limiting children in opportunities to engage in play and physical activities. The absence and limitation of these occupations was conceptualized as creating risks to the children’s health and well-being, such as, stress and learning difficulties (Case-Smith et al., 2010), obesity (Dahan-Oliel et al., 2011), or motor skill delays (Golos et al., 2011).

In this group, a few authors also identified that participating in occupation involves social risks, and that such risks could in turn set limits on occupation. Although only a very few authors referred to social risks, this finding is noteworthy as it differed from the overall literature which largely assumed risks to be equaled with health risks. Authors described that people, who experienced a condition viewed as ‘non-normal’, frequently self-restricted their occupations due to the fear of social risks, such as stigma and negative social judgements. Study participants, for instance, feared stigma due to mental illness and low vision (Krupa et al., 2010; Laliberte Rudman et al., 2010), negative comments about falling in public (Schmid & Rittman, 2009), or not being able to eat properly when sharing a meal with others (Laliberte Rudman et al., 2010). Literature also described certain contexts, in which occupation becomes restricted when others feared a subject’s safety or their own and society’s safety. For instance, White, Montgomeiy, and McShane (2010) reported that people with dementia are frequently excluded from participating in meaningful activities, as they were “locked into their homes because of carer concerns” (p.153) related to risks associated with becoming lost. Intending to enable outdoor occupations, White et al. investigated if tracking technology could be “effective in enhancing the safety of people who wander” (p.153). Likewise, C. Craik et al. (2010)
found that risk minimization strategies and security procedures in forensic mental health
“inevitably limit opportunities and create occupational risk factors” (p.340) in forensic
mental health for. Since institutional practices hindered “those detained in forensic units”
(p.340) to engage in meaningful activities, this group was identified as being at risk for
occupational deprivation, imbalance, and alienation.

Summary and epistemological underpinnings

To summarize, literature constructing ‘occupation at risk’ viewed an individual’s or a
groups’ participation in occupation as being at risk. Authors saw a subject’s occupation to
be endangered for two main reasons: due to a particular medical condition’s
characteristics or due to a particular living environment’s characteristics. Both individual
and environmental conditions were viewed as limiting, reducing or excluding a subject
from engagement in occupation. While most of this literature still understood risk from a
technico-scientific perspective, this literature often seemed to have a critical intent in that
authors aimed to raise awareness about a marginalized group by making their
occupational needs visible. Engaging in occupation was assumed to be a human need,
which can be at risk in the absence of choice and opportunity. Occupation was seen as
necessary in achieving health, well-being, and proper development. Losing or being
excluded from occupation without having a satisfying re-placement, constituted a risk for
ill-health and, for a few authors, injustice.

However, most of this literature still understood risk from a technico-scientific
perspective in that it assumed a linear cause effect relation between occupation and risk;
that is, limited occupational possibilities were seen as causing particular health risks, such
as obesity. For instance, when children’s play and activities were viewed as being at risk
due to their living environments, it was stressed, that this would cause health or
developmental problems. Therefore, children’s occupations which were found to be at
risk were frequently physical activity and exercise. Other occupations and dimensions of
play, such as pleasure, enjoyment, or experiencing excitement, were absent. Golos et al.
for instance found that a particular setting “did not provide sufficient opportunities for
play and physical exercise, which seemed to have negatively influenced the children’s…
grossmotor and motor-cognitive skills” (p.149) and Dwyer et al. highlighted that
“physical activity is not just a means of weight control. It is essential for promoting children’s health and well-being and is a prerequisite for optimal growth and development” (p.20). The presence of a technico-scientific view of risk in many articles of this group seemed to be closely linked to particular health promotion discourse that these articles drew upon. This particular health promotion discourse (‘New public health’, Lupton, 1995) has been critiqued by Lupton and others (Ayo, 2012; Bunton et al., 1995; Caraher, 1994; Petersen & Bunton, 1997) for being deeply rooted in technico-scientific and individualized risk perspectives, and as obscuring broader contextual factors in which health is produced.

2.2.7 Discussion

The analysis of the sampled literature led to three main findings. First, as demonstrated within the findings, almost all of the articles adopted a technico-scientific understanding of risk, though none of the articles explicitly mentioned the epistemological perspective taken. Second, the assumption of risk as an objective fact affected the perspective on and knowledge generation about occupation. Third, analysis showed tendencies in some sample literature for which a technico-scientific perspective has been criticized, such as individualization of risk, victim-blaming and obscuring broader socio-political conditions in which health and occupation are produced.

As illustrated in this scoping review, research that takes a technico-scientific perspective on risk has made valuable contributions to identifying risk-factors connected to occupations, whether in their presence, their absence, or their imbalances. Research has also re-framed health risks from an occupational perspective and underlined the potential that occupation holds in preventing ill-health and in promoting health and well-being. In addition, researchers have studied how specific groups, identified as being ‘at-risk’, can be encouraged to make occupational choices that prevent risks and to learn how their occupation can be optimized, balanced, or adapted.

While not negating the contributions of such work, it is also important to note that the dominant technico-scientific risk perspective leads to particular ways of conceptualizing and understanding occupation that neglects alternative ways. For example, one of the
main criticisms of a technico-scientific understanding of risk is that it individualizes risk and locates risk within individual subjects (Lupton, 1995; Nettleton, 1997; Petersen & Bunton, 1997). Within the body of risk literature reviewed in this scoping review and consistent with broader critiques of epistemological limitations within occupational science (Hocking, 2012; Kantartzis & Molineu; Kinsella & Whiteford, 2008), occupation is often viewed as an individualistic phenomenon that can be understood outside of the contexts in which it is performed. Research which acknowledges that occupation is socially situated and, in turn, that the risks associated with it are socially constructed, is almost absent. This absence leads to an individualization of occupation-related risk. While research identifies occupation-related risk factors within an individual’s environment, strategies to minimize these risks mostly center on individuals and not on the broader societal context in which the occupations and risks are occurring. For instance, within some of the literature reviewed, the risks of workplace environments, such as the prevalence of ‘sedentary work’, are identified, but action and intervention rarely addresses how workplaces are socially shaped and practiced. Instead, individuals are empowered to make healthy choices for physical activity outside their work environments and to use their leisure as a means to ‘balance’ unhealthy work environments.

The pervasiveness of a technico-scientific perspective also means that risk is often conceptualized as apolitical and value-free. In turn, risks related to occupation are also assumed to be objective and value-free. Therefore, the power relations that inform and sustain particular constructions of risk remain unscrutinized. Once again, in line with broader critiques in the study of occupation that have pointed to a reluctance to attend to the politics of occupation (Hocking, 2012; Laliberte Rudman, 2012), risk is often taken as pre-existing by the researcher and as independent from the sociopolitical context in which the study is conducted.

Socio-cultural perspectives on risk, including risk-society, cultural/symbolic, and governmentality perspectives, described in chapter one, raise awareness of how the identification of ‘at-risk’ individuals can, perhaps inadvertently, foster individualization and ‘victim-blaming’ by reinforcing the structural inequalities that shape individuals’
vulnerability in the first place (Beck, 1992; Beck & Beck-Gernsheim, 1994; Dean, 1997; Douglas, 1992; Lupton, 1999a). Labelling individuals as ‘at-risk’ within and through occupation-based research may foster the location of ‘problems’, ‘failures’ or ‘pathologies’ related to occupations as being within individuals, families and communities rather than in the social structures and discourses that create and maintain social and occupational inequalities. Furthermore, the uncritical use of an at-risk label can foster marginalization as it often connotes an implicit need to save ‘us’ (the dominant group) from ‘them’ (the at-risk or risky other) by providing ‘our’ intervention and services (Lupton, 1999a; Riele, 2006; Webb, 2006). Such tendencies, cultivated by a dominant technico-scientific perspective on risk, can be noticed in the analyzed occupation-based literature. For example, articles imply that ‘we’ need to be saved from the increasing health care costs that ‘they’ produce by falling (at-risk older adults, Painter & Elliott, 2009); the accidents, injuries and the economic impact on health care costs that ‘they’ produce by still driving (high-risk older drivers, Classen, Shechtman, Awadzi, & Lanford, 2010); or the societal burden ‘they’ will become to ‘us’ by developing lifestyle diseases, due to ‘their’ physically ‘sedentary behaviour’ or to ‘their’ parents’ failure to raise adequately active children (inactive children, Dwyer et al., 2009).

While articles are well intentioned in their aim to facilitate positive change for (or, rather, in) ‘at-risk individuals’ and their occupational repertoires, scholars outside occupational science have demonstrated how a generalized, sole and technico-scientific use of the at-risk label is highly problematic. For example, the label has been critiqued as ‘implicitly racist, classist, sexist, and ableist’ (Swadener & Lubeck, 1995, p. 3), as risk frames the at-risk subject as universal and aims for normalization. The at-risk label also focuses on personal attributes of the at-risk subject and obscures the situations and contexts placing subjects at risk. This tendency was also visible within the analyzed literature. Some texts even used the term ‘high-risk’ or ‘at-risk’ as a self-explanatory adjective that could stand alone. That is, risk was used to describe and classify a particular group of individuals, without always describing what they are at risk ‘for’. The at-risk position becomes a characteristic, located within the individual. For instance, one article referred to ‘young adults born at high risk’ (Dahan-Oliel et al., 2011). Here, the term ‘at risk’ is not describing an individual’s position in unfortunate circumstances, but is instead
constructing ‘being at-risk’ as an individual’s characteristic. Being ‘at-risk’ thus becomes a personal attribute that sets up a distinct relationship to experts who may enable, empower, inform, and protect at-risk subjects. For this reason, Riele (2006) critiques the use of the ‘at risk’ label in the field of education, as it identifies subjects through their personal attributes as individuals. Taking a socio-cultural risk approach, Riele suggests changing the term ‘at-risk youth’ to ‘marginalized youth’, which would identify subjects through their relationship with the education system and shift focus away from individual subjects towards the context in which they become at risk.

The tendency of technico-scientific perspective to foster ‘victim-blaming’ was also found in the analyzed literature. Researchers, for instance, reported that occupational therapists tend to underreport work-related injuries due to an ‘altruistic’ professional culture and that therapists’ behaviour restricted accurate data collection (“Without accurate reporting, work-related threats… cannot be addressed appropriately, leaving clinicians at continued risk”, Dyrkacz et al., 2012, p.244). Underreporting, in turn limited the therapists’ protection (“Prevention of these conditions is limited by underreporting and altruistic behavior on the part of the therapists”, Darragh et. all, 2009, p. 361) and implicitly assigns responsibility for their risky situation to the occupational therapists themselves. This example shows how a technico-scientific risk perspective - even when culture is considered - reduces contextual factors to an explanation of individual behaviour as another ‘risk factor’.

An interesting finding in this literature sample was also that authors in the ‘occupation as a marker for risk group’ frequently argued that occupation-based screening tools could provide data for a better allocation of limited resources. As illustrated, authors argued that early detection and diagnosis of children with autism spectrum disorder “allows families access to supports and resources” (Mulligan and White, 2012, p.557). They stated that “barriers to diagnosis, extensive waiting times and service supply–demand imbalance” (Poulsen et al., 2011, p.95) required an empirically-based scheme that could “identify and support the most severely affected” (p.95) and prioritize service provision. Both authors aimed to develop an occupation-based screening tool to support clinical decision-making. The guiding question ‘Who needs to be helped first?’ by finding those
at ‘most’ or ‘high’ risk, takes for granted that not all can be helped at the same time - or at all. Thus, providing solutions that focus solely on how limited resources can be allocated by risk prioritization might inadvertently support and take for granted the social structures and practices that shape ‘limited’ resources in the first place.

One must also critically consider the broader societal context in which certain risk knowledges are produced and requested. What risk research in occupational science has not done yet is to adequately and critically develop analyses of the phenomenon of ‘risk’ in itself, that is, to approach it as a phenomenon that serves certain social functions and arises in certain political contexts. I argue in this thesis that there is a need to understand how the growing presence of risk in contemporary everyday life and in relation to everyday occupation connects to current socio-cultural and political-historical contexts.

2.2.8 Moving forward in studying occupation and risk: Incorporating socio-cultural perspectives

Any epistemological perspective enables certain ways of seeing and studying a phenomenon, while simultaneously closing off others. Given the predominance of a technico-scientific perspective on risk in the literature reviewed, I argue that it is timely to draw upon socio-cultural and, especially, critically oriented epistemologies on risk, to create opportunities for new ways of thinking about and addressing risk within occupational science. Each socio-cultural risk perspective, focusing on a specific aspect of the social and political nature of risk, draws attention to new research directions in occupational science (see Appendix B, Right column, Potential research foci for occupational science) that respond to current calls in the discipline to shift away from individualistic, apolitical perspectives towards understanding of occupation as situated. For example, drawing upon the risk society perspective and theoretical ideas regarding reflexive modernization, researchers interested in the study of occupation might explore the specific relationship of risk and occupation in late modernity. Forefronting the breakdown of ontological securities and life course expectations within processes of de-traditionalization and individualization, they might research how individuals convey and construct their occupations and occupational identities in times of uncertainty. Research could also address the implications of the increasing demands to be reflexive and
proactive to secure one’s opportunities for future doing; research could, for instance, focus on investigating the implications of increasing demands to plan ahead for one’s child’s future through carefully choosing childhood occupations that are viewed as healthy and advantageous in child development (Millei & Lee, 2007). Occupational scientists could also draw upon this perspective to focus on risk at a global level, for example, by investigating how some work occupations, associated with high environmental or health risks, become ‘outsourced’, and shift from Western countries towards countries with less complex, less stringent, or less costly risk-management legislations.

Taking more a cultural/symbolic approach to risk, researchers could draw upon Douglas’ work to study how risk and occupation relate within socio-cultural processes. For example, they might research how occupation, when this is attached to risk, can carry out moral functions that maintain and convey a group’s dominant values, such as health or responsibility. Drawing on the idea of risk as a strategy for normalization (Douglas, 1990; Lupton, 1999a), scholars might research how risk is employed to ‘other’, ostracize, or blame people who pursue occupations different to the dominant group within a given culture. For example, scholars might focus on how individuals who prefer ‘deviant’ occupations become framed as ‘at’-risk for crime or addiction and as ‘a’ risk to others. Occupational scientists could also study how social notions of risk shape the meaning of occupation for individuals in limiting, as well as enabling, ways.

As a final example, occupational scientists taking a governmentality perspective on risk might study how discourses employing risk operate in the construction of subjectivity and social life through occupation. Forefronting risk as a powerful rationality that produces and maintains power relations could lead to a critical interrogation of who benefits from encouraging individuals to make particular ‘responsible’ occupational choices. Or they might study how risk is employed to govern specific occupations of populations that are problematized as being ‘at-risk’ (such as driving in the elderly, or physical activity in children). By focusing on occupations that have recently become problematized within risk discourses, scholars in occupational science could also research how risks and
occupations come to be constructed differently in varying political contexts or across historical times.

2.2.9 Conclusion

In conclusion, the use of socio-cultural epistemologies to inform the study of risk and occupation is highly relevant to occupational science. Their importance arises from two observations within and outside the field of occupational science. First, I have demonstrated the absence of such perspectives in occupational science and have outlined some of the consequences of the dominance of a technico-scientific risk perspective. I have also illustrated that new possibilities in research of occupation could be opened up by further integrating socio-cultural perspectives on risk into occupational science research.

Second, the use of socio-cultural epistemologies to inform the study of risk and occupation is particularly important within current societal transformations. Many authors propose that risk discourse is a ‘seismic field’ of society, raising concerns about how current risk discourses relate to and indicate fundamental social changes (Baker & Simon, 2002; Denney, 2005; Harthorn & Oaks, 2003). Denny (2005), for example, points out that concerns about the lack of safety have displaced concerns about equality in contemporary Western societies, and Baker and Simon (2002) call attention to the increasing variety of efforts to conceive and address social problems in terms of risk and to make people individually accountable for risks. Critical scholars, such as Rose (1996), have raised awareness of how dominant risk conceptualizations contribute to, and reflect neoliberal rationalities that promote an ‘individualization of the social’ related to re-configurations of welfare systems in many Western countries. Additionally, Peterson and Lupton (1996) have noted an increased visibility and influence in health promotion activities which underlying moral and ideological content shapes ‘risky behaviour’ as a failure to take care of the self. Others emphasize that the strong focus on individual lifestyles as a means to manage risk within the ‘new public health’ gives rise to individualism, behaviourism, consumerism and victim-blaming (Bunton, Nettleton, & Burrows, 1995, Lupton, 1995; Petersen, 1997). Given these various concerns about the contemporary societal implications of the increasing use of risk within various social
arenas of relevance to occupation, incorporating socio-cultural perspectives on risk is essential for occupational science to evolve as a socially responsible intellectual enterprise (Aldrich & Marterella, 2012; Hocking, 2012). Essentially, socio-cultural and critically-oriented perspectives on risk provide a valuable response to current societal challenges, as they facilitate occupational scientists to attend to macro-level contexts of occupation, such as modernization, culture and governance, and attend to the reproduction of power relations in knowledge generation and within occupation.

2.3 Scope and focus of the study: The case of the aging driver

In the previous section, I have argued why it is important to expand the use of socio-cultural perspectives when studying risk in relation to occupation. Describing limits of individualistic approaches in the study of occupation, I have connected this doctoral study to recent calls in occupational science for research that provides an occupation-centered analysis of power relations and uses occupation as its analytical focus or case (Aldrich & Marterella, 2012; Angell, 2012; Laliberte Rudman, 2012; Townsend, 2012). The following section introduces the occupation which serves as the analytical case for this thesis; that is ‘driving in later life’, and the related subjectivity of the ‘aging driver’, both problematized in the so called ‘older driver problem’ (Evans, 2004, p. 170).

Drawing upon a governmentality perspective on risk, I argue that the case of the aging driver can serve as an excellent example to contribute to the understanding of how risk is taken up in a particular discourse (the ‘older driver problem’), to govern a specific occupation (‘driving’) and to form a specific occupational subjectivity (‘the aging driver’).

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6 Further details regarding a governmentality perspective and my rationale for drawing on it to inform the critical discourse analysis conducted for this thesis are explicated in chapter three.
First, driving in later life was chosen as a case for this study as this occupation has recently gained prominence in North America as an occupation that contains risk (Classen et al., 2008). For instance, driving in later life has been referred to as the ‘older driver problem’ (Evans, 2004) or - more recently- as a problem of ‘older driver safety’ (Classen, Winter, & Lopez, 2009; Dickerson et al., 2011). The problematization of the older driver makes driving in later life an interesting case for this study, as for something to be governable, it has to be thought of as a problem to be overcome first (Lemke, 2002; Packer, 2003). As Packer (2003), drawing on Foucault, states: “in order for something to be governed, or imagined to be governable, it needs to be problematized… This is to say that an activity to be governed needs to be thought of in terms of a problem to be overcome” (p.136, emphasis added). The problematization of driving in later life, as well as the concurrent formation of ‘aging drivers’ as a particular type of subjectivity, is commonly located in the context of projected future demographic shifts that will result from an implicit normal to a now aging population (J. Craik, 2011; Stav, 2008). Population experts predict a ‘grey Tsunami’ of aging drivers (The Globe and Mail, March 25, 2010), depicted to ‘flood over’ society and to have a devastating impact on social and individual security - if governments and individuals do not prepare for it in time. Experts warn that consequences of an uncontrolled increase of aging drivers “extend beyond the loss of function and life to a major impact on health care and economic cost…contributing greatly to the national health care costs burden” (Classen et al., 2010, p. 233). Within such alarmist demography (Katz, 1992, Robertson, 1997), a certain segment of the population and their everyday occupations become set apart and problematized. In this analyzed case, the population group includes those marked as aging drivers and the occupation of driving for aging drivers is problematized as risky to the self and to others. This problematization contains several elements that make it a valuable focus for this thesis.

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7 In this thesis, I am using the term North America to refer to Canada and the United States only.
Second, given that this thesis aims to contribute to the literature on risk and occupation, driving during old age is an illuminating example to focus on because it is an everyday occupation, an activity, which is taken for granted by many people in their daily lives within North America and over their life courses (Freund & Martin, 1997a, 2001; Seiler, 2008; Urry, 2002). Driving is the main means of daily mobility in an auto-centered society (Rothe, 1990). Sociologists have highlighted that, in North America, experiences of daily mobility, everyday activity and social participation are “framed by an automobility-based organization of space, time and movement” (Freund & Martin, 1997, p. 178). Driving, thus, is more than a mere means of mobility (Freund & Martin, 1997a, 1997b, 2001; Hensley, 2010; Seiler, 2008). Automobility, and the occupation driving as a part of it, constructs and organizes social spaces, relationships and environment and is also constructed by them. Focusing on automobility, traffic sociologists have questioned the seemingly naturalness of driving and drawn attention to the importance of driving to conceptions of the self (Davidson, 2008; Sheller, 2004), citizenship (Packer, 2008; Rajan, 2008; Seiler, 2008), the economy (Conley & McLaren, 2009), and in constructing, organizing and reinforcing social, economic and political structures (Conley & McLaren, 2009; Freund & Martin, 1997a; Seiler, 2008; Sheller & Urry, 2000). Driving is also regulated via governmental means, such as traffic legislations, policies for age-related re-testing, and plans and regulations for infrastructure and built environment.

Third, the ‘aging driver’ is increasingly present in several arenas of everyday life, such as in the media and in popular culture. For instance, single traffic accidents recurrently catch special media attention and debate when they involve aging drivers (e.g., “Senior drivers debate sparked by Winnipeg collision”, CBC Radio-Canada, October, 2012). As well, one can purchase commercially produced “Older Driver Gifts” (Zazzle Inc., 2012), such as t-shirts and coffee mugs with messages that jokingly signify the receiver’s age and new status (e.g., “At my age getting lucky is finding the car in the parking lot”, “The car is classic, the driver is antique”, Zazzle Inc., 2012). Car industries also develop products geared to aging drivers and consumer reports rank ‘best car choices for seniors’ (e.g., Consumers Union of U.S., August 2012). Driving in later life has also taken up by popular culture and moral institutions. There are, for instance, a full episode about the aging driver in the cartoon series Southpark (“Grey Dawn”, 2010), stereotypical jokes
(e.g., “Top 10 old driver jokes”, *The Daily Dose*, 2008), and the Catholic Church has pointed to driving as having a moral and ethical component by issuing “Guidelines for the Pastoral Care of the Road” (Vatican, 2007), containing “Ten commandments for drivers”.

Fourth, occupational scientists and therapists have also highlighted the integral part that driving plays in modern Western society in enabling everyday occupation and social participation (Arbesman & Pellerito, 2008; J. Craik, 2011; Polgar, 2011). Driving is a powerful occupation in that it is key to many other occupations and shapes possibilities for occupation. That is to say, driving provides access to and enables participation in many everyday occupations, such as participating in (self) caring occupations (e.g., getting groceries, visiting the doctor, maintaining family relationships), social and cultural occupations (e.g., getting to the gym to exercise, getting to a park for a walk, participating in a book club, meeting friends to socialize,) and productive and civic occupations (e.g., getting to work and related tasks, getting to places for volunteering). Not-driving, or not being able to drive, particularly when public transportation is not available can lead to disconnection and social exclusion from a variety of sites and communities where occupations are commonly performed, where social partners for a specific occupation are met, or where materials for the occupation are found (Polgar, 2011). Accordingly, driving is socio-culturally constructed as an important occupation, representing autonomy, independence and identity and contributing to quality of life and well-being (Polgar, 2011; Sheller, 2004; Vrkljan et al., 2010). Driving is also an occupation that holds potential for inequality. Freund and Martin (1997a, 1997b, 2001) draw attention to the social production of injuries and how auto-centered transport has created mobility-disadvantaged and health-disadvantaged groups; health effects of car pollution, access to cars, accident quality of cars, and mortality from accidents, for instance, are differentially distributed within populations. These authors argue that automobility is increasingly important in contributing to social inequalities; it “allows the ultimate segregations in our culture – old from young, home from job and store, rich from poor and owner from renter” (Calthorpe, 1991, p. 45).
Fifth, driving in later life is framed as a growing public health issue for which interventions are required (Awadzi, Classen, Garvan, & Komaragiri, 2006; Classen et al., 2007; Wang & Carr, 2004). Later life driving, as an occupation-related public health issue has also been taken up within the occupation-based literature addressed in the above scoping review and by occupational therapy associations. For instance, both national occupational therapy associations (American Occupational Therapy Association, AOTA, Canadian Association of Occupational Therapy, CAOT) in North America have issued position statements that claim specific expertise and occupation-based knowledge with regard to older driver safety and identify the issue as an emerging area of practice (“Statement: Driving and Community Mobility”, AOTA, 2005; “Position Statement: Occupational Therapy and Driver Rehabilitation”, CAOT, 2009). Both statements papers were followed by a nationwide and federally funded project in each country (Arbesman, Lieberman, & Stav, 2008; J. Craik & Von Zweck, 2009) and both associations published a special issue of their academic journal, emphasizing ‘driving’ as an important area of their profession (American Journal of Occupational Therapy, 2008, 62/2, Canadian Journal of Occupational Therapy 2009, 78/2). Though not the primary focus of this study, the generation and claim of unique occupation-related risk knowledges and expert services with regard to the aging driver can be interpreted as a sign for an emerging ‘risk profession’ (Ericson & Haggerty, 1997). From a governmentality perspective, risk professions are important in shaping the conduct of individuals as they, through their prevailing concepts and underlying assumptions, carry out social regulatory functions of risk (Castel, 1991; Ericson & Haggerty, 1997; N. Rose, 1999). The emergence of risk professions related to driving also strengthens the choice of ‘driving in later life’ as a valuable focus for this study to investigate how occupation is governed through risk. The quest for knowledge generation with regard to ‘driving in later life’ was also prominent in the previous scoping review of occupation-related risk research (Classen et al., 2008; Classen et al., 2010; Classen et al., 2009; Dickerson et al., 2011; Shaw et al., 2010; Vrkljan et al., 2010).

And finally, the ‘aging driver’ also provides an interesting case for this study as risk seems to be taken up to problematize aging subjects in two ways. On the one hand, aging subjects engaging in driving are outlined as ‘at-risk’ individuals: they are, for example,
thought of as having a higher risk of accidents and traffic violations and as having a greater susceptibility to injury and death from accidents than the ‘normal’ population (Classen et al., 2008; Vrkljan et al., 2010). On the other hand, aging drivers, as individuals and as a population group, are also outlined as constituting ‘a risk’ to others: they are thought of as becoming increasingly a risk to the social body, public safety, the flow of traffic, the health of seemingly ‘non-risky’ drivers, to economic success and for the costs of health care (Classen et al., 2010). Together, these two foci construct an urgent need to take action, because “a virtual tsunami of older drivers is headed for our roads” (Peirce, 2003, p. 2).

In conclusion, driving in later life and the aging driver provide a valuable case to investigate how occupation is governed through risk, as driving is a powerful, taken-for granted, everyday occupation, that is problematized with regard to a certain group of the population, creating at-risk and risky subjectivities, and in light of predicted societal changes. Within the next chapter, the methodology utilized to study the case is explicated.
Chapter 3

3 Methodology

The overall purpose of this research was to further understanding of how everyday doing, or occupation, is shaped and governed, through risk. In the previous two chapters, I have argued why risk is an important focus for the study of occupation and why it is important to take a critical perspective in research addressing risk and occupation. To translate my broader research interests on risk and its relation to occupation into a concrete research project, I chose to focus on the occupation ‘driving’ as performed by aging individuals. In the previous chapter, I have illustrated why the currently formed ‘aging driver problem’ provides an excellent case to advance understanding of how risk is used and taken up to govern a specific occupation (‘driving’) for a specific population (‘aging individuals’), and how new subjectivities (‘aging drivers’) come into sight in order to be governable by the self and others. More specifically, the overall objectives of this study were twofold:

1. To enhance understanding of how risk is taken up to govern everyday occupation, using the example of driving in later life
2. To explicate how risk is taken up in discourses to constitute particular subjectivities and their occupational possibilities, using the case of the ‘aging driver’

Choices such as how ‘risk’ and ‘discourse’ are defined, how they are assumed as ‘doing things’ to occupation, and with which methods they can be best investigated, are methodological choices that relate to a study’s epistemological and theoretical underpinnings (Finlay, 2006; Grant, Hardy, Oswick, & Putnam, 2004). Methodology, as Schwandt (2001) defines it, encompasses a study’s underlying philosophical and theoretical ideas of “how inquiry should proceed. It involves analysis of the assumptions, principles, and procedures in a particular approach to inquiry (that, in turn governs the use of particular methods)” (p.161). The following chapter describes the methodology employed in this research, specifically, a governmentality-informed critical discourse analysis. In addition, the methods used to carry out the critical discourse analysis are described.
Reviewing the literature on risk, three main assumptions about the reality and nature of risk became important for me and, subsequently, inform this study’s methodological position and methods. First, consistent with a critical position, I consider risk not as pre-existing, value-free and stable, but as socially constructed within particular socio-cultural and historical-political conditions. For this reason, the construction of risk is inherently political – which, in turn, emphasizes a need to take a critical stance when researching risk and its relation to occupation.

Second, the construction and meaning of risk - including the construction of particular occupations as ‘risky’ or a group of individuals as being ‘at-risk’ due to their doing - takes place in discourses, broadly understood as ‘language in use’. Critical discourse analysis (CDA) investigates discourses and aims to explore how socially-produced ideas and meanings construct social reality; CDA therefore provides a useful research methodology. This CDA employed Foucault’s ideas on ‘discourse’ as a social practice, in which power and knowledge join and are reproduced in ways that enable and restrict what can be said and done about particular phenomena, such as risk or the aging driver.

Third, a governmentality perspective analyzes ‘risk’ as a technology and rationality, which can be productively employed to call upon people to govern what they and others do within everyday life. Thus, governmentality offers a beneficial analytic framework to articulate this CDA and to investigate how everyday occupation is constituted, shaped and takes place through and within broader discourses and in particular historical contexts.

The following methodology chapter, positions this study as a governmentality-informed critical discourse analysis (CDA). The chapter begins in introducing governmentality, the analytic perspective, which was employed to articulate the type of CDA carried out in this study. It then outlines three analytical central foci within this perspective (knowledge, power, subjectivity) and relates two other concepts central to this research (risk and occupation) to a governmentality perspective. This is followed by outlining key tenets of critical discourse analysis (CDA). After positioning the study, I position myself with regard to the study and the research objective.
3.1 Analytic perspective: Governmentality

Governmentality scholars draw on the work of Michel Foucault and his analysis of government (Bratich, Packer, & McCarthy, 2003b; N. Rose, O'Malley, & Valverde, 2006). It is important not to (mis)understand governmentality as a theory explaining social phenomena. Rather, governmentality is a particular perspective (Bröckling, Krasmann, & Lemke, 2011a; N. Rose, 1996b) which directs attention to the ‘conduct of the conduct’ in everyday practices and investigates ‘what is said and how it is said’ and the conditions that produce these phenomena (Conway & Crawshaw, 2009; N. Rose et al., 2006).

In his later work, Foucault became interested in how government, that is, ‘the government of others and the government of one’s self’ (Garland, 1997), occurs. This work, the analysis of government, brought together two of Foucault’s interests (Lemke, 2002), that is, the constitution of the subject and the formation of the state. In his work on governmentality, Foucault began to conceptualize a ‘missing link’ that could connect processes of subjectification and forms of power (Bratich, Packer, & McCarthy, 2003a; Lemke, 2002). Extending the idea and concept of government beyond the execution of sovereign power, Foucault argued that government does not occur solely through political institutional structures of the state, as, for instance, in policy making. He was interested in the ‘art of governing’, that is, how specific ways of enacting power (‘technologies’) are linked to specific modes of thinking (‘rationalities’). Governing then, for Foucault, encompasses the ‘conduct of the conduct’. That is, governing takes place in everyday life and is carried out through a variety of “modes of action, more or less considered and calculated, which were destined to act upon the possibilities of action of other people. To govern, in this sense, is to structure the possible field of action of others” (Foucault, 1982, p. 790).

Governmentality scholars (e.g., Bratich et al., 2003a; Bröckling et al., 2011a; Burchell, Gordon, & Miller, 1991; Dean, 2010a; Lemke, 2002; N. Rose et al., 2006) have taken up Foucault’s work to explore the modes of action carried out by various types of social authorities and institutions (such as families, health care institutions, or mass media),
aimed at shaping the conduct of the self and others towards particular ends. Building on Foucault, they approach and explore government as

any more or less calculated and rational activity, undertaken by a multiplicity of authorities and agencies, employing a variety of techniques and forms of knowledge, that seeks to shape conduct by working through the desires, aspirations, interests and beliefs of various actors, for definite but shifting ends and with a diverse set of relatively unpredictable consequences, effects and outcomes (Dean, 2010a, p. 18).

Governmentality scholars assume that how people govern themselves and others within everyday life is linked to complex ways of how power and ‘truth’ are produced by various authorities in social, cultural and political practices. They are interested in the supporting rationalities which make particular ways of governing thinkable and practicable, viewing governmental rationalities as

the ways of thinking and styles of reasoning that are embodied in a particular set of practices. It [governmental rationality] points to the forms of rationality that organize these practices, and supply them with their objectives and knowledge and forms of reflexivity (Garland, 1997, p. 184).

Rationalities “render reality conceivable and manageable” (Bröckling et al., 2011a, p. 11) by providing ways of thinking and reasoning regarding “how things are or how they ought to be” (Dean, 2010a, p. 19). However, as Garland (1997) points out, rationalities are “practical rather than theoretical or discursive entities” (Garland, 1997, p. 184, original emphasis) as ideas and practices are always connected. That is, rationalities are embodied in practices and translate into specific ways of problems solving, attempting to ‘make things work’ in certain ways and for particular goals (Garland, 1997).

Closely linked to the concept of ‘rationalities’ are ‘technologies’ of governing (Bröckling et al., 2011a). Technologies include the specific strategies through which political rationalities are enacted and effected. Within a governmentality perspective, a technology of government can be seen as an

assemblage of forms of practical knowledge, with modes of perception, practices of calculation, vocabularies, types of authority, forms of judgment, architectural forms, human capacities, non-human objects and devices, inscription techniques and so forth, traversed and transected by aspirations to achieve certain outcomes of the governed. (Rose, 1999, p.52)
As an analytic perspective, governmentality thus focuses on the question of how technologies and rationalities constitute and co-produce themselves and how both operate in how power is exercised, negotiated, diffused, and produced. This study, taking a governmentality perspective, pays attention to particular technologies that call upon individuals to govern themselves and their occupations within everyday life, supported by distinct rationalities, such as risk. By actively taking on such practices, termed ‘technologies of the self’ (Foucault, 1988), individuals govern and shape themselves as particular kinds of subjects. Technologies of the self enable government ‘from a distance’ (N. Rose, 1999); they call upon people to take on (or resist) desired or specific subjectivities through engagement in particular practices, embedded in political rationalities, encountered by people in the discursive surroundings of their everyday lives (Dean, 1999a).

Governmentality scholars do not presume a clear separation between ‘state’ and ‘civil’ society, as their emphasis on government as practice and extended conception of governing authorities breaks up such conceptual boundaries (Garland, 1997). Focusing on the practices through which government occurs, rather than on specific governmental structures, raises distinct questions. As power is viewed as located and produced in a variety of social sites and authorities, there is no clear separation between ‘the public’ and ‘the private’. Therefore, a governmentality perspective highlights questions such as: How does (self) government occur? How are practices of governing a population connected to practices of the self? What rationalities of governance, such as risk, are implicit in practices addressing particular problems, such as an ‘aging population’? And how are these rationalities, (re)produced and taken on in particular power relations? (Garland, 1997).

As an analytic perspective, governmentality has been used by several scholars to analyze processes of contemporary social transformation occurring in many Western societies. In particular, a body of work focused on the shift from ‘welfarist’ politics, emphasizing social security and collective responsibility, to ‘neo-liberal’ politics, which stress market orientation, choice and individual freedom (Bröckling, Krasmann, & Lemke, 2011b; Burchell et al., 1991; Dean, 2010a; Ericson & Haggerty, 1997; Lupton, 1995; Miller &
Rose, 2008; Nadesan, 2008; Parton, 2006; N. Rose, 1999; Webb, 2006). Using
governmentality, this shift has been analyzed not as a withdrawal of the state from
general welfare, but as a restructuring of governmental technologies (Bröckling et al.,
2011a; Webb, 2006). These technologies call upon individuals to govern themselves and
encourage a new relation between the citizen and the state, which Bröckling et al. (2011a)
point to as “the activating state, the activated subject” (p.15). Culpitt (1999), for instance,
using a governmentality framework in his analysis of social policies pertaining to risk,
illustrates how neo-liberal rationalities emphasize positive aspects of self-autonomy, self-
responsibility and self-caring.

The next section describes three key concepts within the analytic framework of
governmentality, specifically, power, knowledge, and subjectivity. Though they will be
separated to explain each, it is vital that power, knowledge and the subject be thought of
as intertwined in ways that shape conditions for each other (Bratich et al., 2003a; Kendall
& Wickham, 1999).

3.1.1 Power

Power as relational

Governmentality studies build on Foucault’s notion of power. Foucault’s focus on power
as produced in social practices and relations and as productive, rather than being
something that is bound to or determined by economic structures, have been influential in
reformulating repressive concepts of power (Fook, 2002; Mills, 2004). Instead of viewing
power as a type of repressive ‘entity’, limiting the freedom of individuals, or primarily
located in and enacted through macrostructures, Foucault saw power as produced and
“diffused throughout the social system…and manifested at a micro-level through local
forms” (Chambon, Irving, & Epstein, 1999, p. 277). In a Foucauldian sense, power can
only exist in relations - in ‘relations of power’ (Chambon et al., 1999; Kendall &
Wickham, 1999); it is “never a fixed and closed regime, but rather an endless and open
strategic game” (Gordon, 1991, p. 5). In a governmentality framework, power is
understood as productive, as well as produced, and as a practice dispersed through social
relations, rather than coming from one particular center:
Power is everywhere; not because it embraces everything, but because it comes from everywhere….Power is not an institution, and not a structure; neither is it a certain strength we are endowed with; it is the name one attributes to a complex strategical situation in a particular society. (Foucault 1990, p.93)

Therefore, the analytic focus within a governmentality perspective is not on where power is located or ‘coming from’, or who possesses it. Rather, the analytic interest is to understand how power is produced, how it becomes possible, and how it is productive; that is, how power, in turn, produces frames for what becomes possible and restricted to do and be (Fook, 2002; Kendall & Wickham, 1999; Mills, 2004). Because this view of power “encourages looking at how power is expressed in the richness of everyday relations” (Fook, 2002, p. 53) it is a particularly fitting perspective to address people’s everyday doing, that is, their occupations and related subjectivities.

Power/knowledge

Foucault stressed the close connection between power and knowledge production. For him power and knowledge are mutually and inextricably imbricated (Foucault, 1980), a relation captured in the expression ‘power/knowledge’ (Foucault, 1980; Mills, 2004). He argued that knowledge, that is, what comes to be seen as ‘truth’ in a particular time and context, is always the result and effect of power struggles (Mills, 2004). Foucault argued that knowledge cannot be thought of outside the power relations in which knowledge is produced and practiced (such as, in and through academic disciplines, professions, schools, families). In the same way that knowledge is tied to power relations, power relations are tied (in)to knowledge. Power cannot be exercised without the forms of knowledge and expertise that legitimize it and the range of techniques that effect it (such as, particular calculations, categorizations, technological developments, cause-and-effect lines of thought, political rationalities, and so on). As Chambon et al. (1999) explain, the concept of power/knowledges highlights that “every development of knowledge fosters an increase in specific forms of power, and conversely, any expansion of specific power required an increase in specific forms of knowledge”(p. 275).
Power and discourse

Scholars referring to governmentality draw particular attention to the notion of discourses. Discourses are a key focus of analysis in a governmentality perspective, as “it is in discourse that power and knowledge are joined together” (Foucault, 1972b, p. 100). Discourses are viewed as the main technology through which power/knowledge is produced and reproduced. Indeed, though Foucault clarified that the terms ‘knowledge’ and ‘discourse’ are not interchangeable (Mills, 2004), discourses can be understood as ‘a flow of knowledge throughout time’ (Jäger & Maier, 2009, p. 35), and the ‘epistemological site’ (Sunderland, 2004) where power and knowledge join in constructing who and what should be governed and in which ways. Simply said, because to “govern means to govern things” (Foucault, 1991, p. 94, emphasis added), a governmentality perspective focuses how particular ‘things’ (such as ‘risk’ and ‘the older driver’) come to be meaningful and ‘known about’, so that they are governable in particular ways.

From a governmentality perspective, discourses are not approached as mere texts and abstract ideas; they are rather, as Foucault states, “practices which systematically form the objects of which they speak” (Foucault, 1972a, p. 49, emphasis added). Discourses are not just reflecting ‘the way things are’, they are rather productive in that they constitute how people come to think about reality, certain phenomena and themselves. Because knowledge is inextricably bound to and shapes power relations, discourses are understood as social practices that shape the contexts and relations in which individuals and collectives act and experience themselves (Hardy & Phillips, 2004). Discourses, thus, are productive, they have effects and consequences. They are ‘concrete’ (Hardy & Phillips, 2004), because they produce a material reality in the practices and social interactions they invoke (Hardy, 2001; Hardy & Phillips, 2004). For example, once discourses bring a category such as ‘the aging driver’ into existence, they shape not only social, but also material realities and practices (which then, in turn, shape and helps to stabilize discourses and power relations). For instance, once a particular subjectivity of an ‘aging driver’ comes to be, car industries develop products for aging drivers, research funding priorities become set, and people might begin to identify and ‘see’ this
subjectivity or way of being in other drivers, their aging parents, or themselves. As Fook (2002) reminds us, discourses also “constitute the bodies and feelings of individuals, since these are also a medium involved in the communication and interpretation of meaning” (p. 64). Taking a governmentality perspective, one’s body, feelings and what one does, are not only a media through which meaning is experienced and expressed, but also a significant space for (self) governing and the creation of subjectivity. While discourses do not determine what subjects will feel, do or be, and while there always exists possibility for resistance, governmentality scholars contend that discourses shape possibilities for doing and being and there are moral implications for those who attempt to step outside these possibilities.

3.1.2 Subject

The subject is another key element of a governmentality perspective. Instead of viewing the subject as a distinct, unique entity, or as oppressed by power relations, Foucault shifted the attention to the power processes that make particular ideas of the subject possible (Mills, 2004). He viewed the subject as constituted by and thus as an effect of power relations:

The individual is not to be conceived as a sort of elementary nucleus…on which power comes to fasten…In fact, it is already one of the prime effects of power that certain bodies, certain gestures, certain discourses, certain desires, come to be identified and constituted as individuals.  (Foucault, 1980, p. 98)

Leaving behind assumptions that presuppose an enlightened individual, liberated and emancipated through reason and the pursuit of ‘truth’, Foucault viewed the idea of an autonomous human subject itself as produced within particular power relations and in a particular historical era. For him, people are rather ‘social selves’, socially constituted and produced subjectivities that are historically variable (Ramazanoglu, 1993). Within a governmentality perspective, the ideas one holds about one’s self, that is, of who one is and how one comes to experience oneself, including one’s body and occupations, do not pre-exist, but are viewed as an outcome of historical developments and as embedded in established forms of knowledge and related practices (Chambon et al., 1999).
While Foucault viewed the formation of subjectivities, understood as configurations of personhood (N. Rose, 1996b), as central in his account of power, he did not deny an active role for subjects (Bröckling et al., 2011a; Kendall & Wickham, 1999) – a point for which Foucault’s work has often been critiqued (Kendall & Wickham, 1999; Lemke, 2002; Mills, 2003, 2004; Ramazanoglu, 1993). Subjects are produced, and actively produce, the human beings they are and want to be within power relations. As Foucault (1988) highlights:

The subject constitutes himself in active fashion, by the practices of self, these practices are nevertheless not something that the individual invents by himself. They are patterns that he finds in his culture and which are proposed, suggested and imposed on him by his culture, his society and social group (p.11).

By actualizing and articulating themselves as subjects, people actively take part in (re)producing and transforming power relations; that is, people “generate themselves performatively, but their performances are bound to orders of knowledge, lines of force and power relations” (Bröckling et al., 2011a). This view of the subject as an effect of power/knowledge, but also as an active producer of his or her subjectivity within technologies of the self, is a key feature of a governmentality perspective (Dean, 2010a; Garland, 1997; N. Rose, 1999). Technologies of the self become a specific focus as it is through these that people govern themselves and their conduct. Technologies of the self, as conceptualized by Foucault (1988), encourage individuals
to effect by their own means or with the help of others a certain number of operations on their own bodies, souls, thoughts, conduct and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immorality (p.18).

Consequently, governmental power as Garland puts it, is not only understood as ‘objectifying’, but also as ‘subjectifying’: as constituting particular subjectivities that people actively take on or resist within technologies of the self (Garland, 1997; N. Rose, 1999). This focus on subjectifications and technologies of the self makes governmentality a beneficial analytic framework to address this study’s objectives. A governmentality perspective aims to identify the changing ways in which human beings - the subjects of government - become objectified politically within discourses (N. Rose, 1999). As an analytic perspective, it focuses on the subjectifications of people, that is, the diverse
processes and practices that ‘make up’ people (Hacking, 1986) within particular places, spaces and times (N. Rose, 1999); such as the subjectivity of ‘the older driver’, emerging within an auto-centered Canadian society at the beginning of the 21th century, a time in which significant demographic changes are anticipated and discursively emphasized within political and other social arenas.

3.1.3 Risk

Though Foucault did not explicitly address risk in his writings (Castel, 1991), some governmentality scholars have built on Foucault’s analysis of governmentality and have illustrated its usefulness to understand the increased use of risk in popular and expert discourses in contemporary Western society. These scholars draw attention to risk as both a calculative technology and rationality of governing, as well as a ‘central organizing principle’ of contemporary government (Lemke, 2004; Rothstein, Huber, & Gaskell, 2006). Different from Beck (1992), who viewed the increased prominence of risk as an effect of living in an increasingly uncontrollable modern world, governmentality scholars argue that risk is rather an attempt to control and govern individuals and collectives in modern society (Rothstein et al., 2006). A governmentality perspective shifts the focus from what risk is towards what risk ‘does’. As defined by Lemke (2004), risks do not correspond or depict natural facts, they are rather instruments and effects of a more complex social-material reality (...) They [risks] represent a specific knowledge, a way of thinking about occurrences and are to this extent not arbitrary (pp. 551-552).

From a governmentality perspective, risk is seen as both a rationality and technology that produces and maintains power relations, particular types of subjectivities, and conduct. As a rationality, risk provides an organizing system of thought that can be harnessed to govern the conduct of collectives and individuals - by positioning them to consider the risk of their activities and to operate on the basis of a rational, calculative responsible approach to risk (Dannefer, 2000). As risk calls upon subjects to become active and guard against a probable, negative future event (O'Malley, 2004), risk permits ‘governing through reasonable foresight’ (Castel, 1991; Dean, 2010a; Ewald, 1991; Rothstein et al., 2006) even though, as O’Malley points out, this future might never happen as outlined. By shaping reality towards particular purposes and ends, risk is a powerful
‘problematization’ (Lemke, 2004), that allows governing to ‘colonize’ the future (Castel, 1991; Dean, 2010a; Ewald, 1991; Rothstein et al., 2006).

Risk can also be focused on as a technology. Forefronting risk as a technology draws attention to strategies and techniques through which the rationality of risk is used to render and problematize particular conduct, decisions, or subjects as ‘risky’ or ‘at-risk’. Risk technologies are all processes embedded in the term ‘risk management’, such as practices of self-assessment, risk screening, or risk identification. Risk technologies and practices can be seen as ‘riskifications’, a term introduced by McManus (2005). In her genealogy of suicide regulation in New Zealand, Mc Manus defines riskification as all “processes through which transgressions are understood in terms of risk, in the same way criminalization is used to denote the processes that render transgressions as crimes and pathologisation renders transgressions as pathologies” (McManus, 2005, pp. 452-453). Since risk produces and maintains assumptions about what needs to be avoided and worked against, it makes it possible, “to construct an ‘ideal style of life’ for every individual” (Lemke, 2004, p. 555); enabling ‘government at distance’ through promoting self-government in particular ways aimed at reducing and managing individual risk. For instance ‘positive’ or ‘active’ aging discourses promote that aging subjects, by living a ‘healthy lifestyle’ and choosing the ‘right’ occupations (such as physical activity, volunteering and traveling), are able to control and protect themselves against the imagined ‘risks’ of old age (such as the loss of body function, dependency on others, and social isolation) (Laliberte Rudman, 2003; Millington, 2011). Therefore, risk, as a technology and rationality of governance also reproduces certain value statements, such as ‘being dependent on others’ is something to be avoided or that it is a significant ‘failure’ of responsible planning for one’s future. As O’Malley (2004) points out, “wherever risk avoidance or minimization is at issue, a moral judgement has been made concerning the unwanted status of an event in the future” (p.8).

Governmentality scholars have also linked risk to neoliberal rationalities (Culpitt, 1999; Dean, 2010a; O’Malley, 2000; Petersen, 1997; Webb, 2006), which they claim support and intensify rationalities of individual “prevention, precaution and preparedness” (Miller & Rose, 2008). They highlight how dominant risk constructions reframe risks that were
once considered as socially-produced collective risks (e.g., poverty, crime, ill-health) to individual risks; promoting individualization and privatization. Neoliberal rationalities emphasize the responsibility of individuals to take control and prevent risk, within an ever increasing array of domains of life. As normalization is a central aspect of neoliberal government (Lupton, 1999b), those whose behavior and choices deviate significantly from the norm will be identified as ‘at risk’. Thus, risk knowledge, provided by experts, becomes a technology of power, as it defines the boundaries of what is ‘normal’ and ‘responsible’ behaviour and what is ‘risky’ and ‘irresponsible’ (Dennhardt & Laliberte Rudman, 2012; Lemke, 2004).

In line with a governmentality perspective, risk in this study is seen as a rationality and technology that produces and maintains power relations, particular types of subjectivities, and particular types of conduct. Risk as a specific mode of thought, attached to particular practices of (self)governing, can be harnessed to shape the conduct and create particular types of people, or subjectivities, and a particular future. Therefore, risk is seen as intimately connected to power, facilitating patterns of governing of the other and of the self that (re)produce power relations.

3.1.4 Occupation

As this study and its underlying research interests are situated in the discipline of occupational science, the concept of ‘occupation’ is another key term within this study’s analytic perspective. As noted in the introductory chapter, within this discipline, occupation is broadly defined as “the various everyday activities people do as individuals, in families and with communities to occupy time and bring meaning and purpose to life. Occupations include things people need to, want to and are expected to do” (International Society of Occupational Scientists, ISOS, 2012).

Using the analytic frame of governmentality, the concept of occupation is viewed in this thesis as closely related to the ‘conduct of the conduct’. Although all conduct can be conceptualized as an occupation, it is proposed that the various occupations individuals engage in take place within their everyday conduct - at numerous places, such as at home, at a grocery store, or at the gym, and within various social contexts, such as at work, in
Traffic, or within a family. Occupation is not only central to everyday life and conduct (Canadian Association of Occupational Therapists, CAOT, Townsend, & Polatajko, 2007; Christiansen & Townsend, 2004; Townsend, 2012; Whiteford & Wright-St. Clair, 2004), it can also be seen from a governmentality perspective as a central part of taking up and enacting subjectivities. Within occupational science and therapy, the ability to choose and engage in occupations which are experienced as personally meaningful, has been conceptualized as a means to construct and enact occupational identity (Christiansen, 1999; Kielhofner, 1995; Laliberte Rudman & Dennhardt, 2008; Phelan & Kinsella, 2009b; Unruh, 2004). Although some authors have attended to occupational identity as socially constructed, it has been critiqued that most of this work has conceptualized occupational identity by drawing upon psychosocial notions of identity, implying identity as something that primarily resides in individuals who actively draw upon and choose occupation to construct and manage identity. Taking a governmentality perspective on occupation draws attention towards the broader social contexts in which certain occupations become socially constructed as meaningful, so that they can be taken up to signify and enact certain subjectivities, such as a ‘healthy ager’, or an ‘active retiree’ (Laliberte Rudman, 2006). A governmentality perspective thus extends beyond previous work linking occupation to identity construction and social expression, raising questions of how individual and collective occupation is governed and how it is shaped, guided or directed towards certain ends, including how it is implicated in the discursive construction and enactment of subjectivities.

Work outside occupational science has employed a governmentality frame to study everyday doing, thus showing its applicability to the study of occupation. For instance, Fullager (2002), showed how current health promotion discourses in Australia aim to mobilize ‘the inactive’ via promoting engagement in physical activities in their leisure to ‘outweigh’ unhealthy workplaces practices, such as sedentary work. Employing a governmentality-informed analysis, Fullager illustrates how Australian health promotion campaigns shifted their focus from the realm of work towards changing the leisure patterns of individuals. Thus, leisure, she argues, once conceptualized as free from the employer’s influence, becomes increasingly conceptualized as a realm in which rational individuals engage in ‘healthy’ occupations and practices that will support and sustain
their health and work ability. Fullager further demonstrates how risk becomes a supporting rationality, which not only locates the responsibility for health within the individual, but also problematizes and locates leisure as the 'site' to act upon. Linking her analysis to neo-liberal rationalities, she argues that the shifted focus from work to leisure practices within current Australian health promotion is happening because recreational activity “is referred to as the ‘best buy in public health’ (...) it costs the government little and locates responsibility for health within the individual and how they manage their bodies through leisure practices to reduce risk” (p.72). Leisure practices or occupations, like the body or the mind (Nadesan, 2008 ), thus can be seen as a site of practices of government.

Occupation can also be viewed and analyzed as a technology of the self through which subjects continually adopt or resist particular subjectivities in their efforts to counter conduct. For instance, choosing to engage in specific occupations and refraining from others, allows people to construct themselves as the kind of people who take care of themselves, such as by bringing their body ‘in shape’ through engaging in exercising, or by transforming and ‘bettering’ themselves to more ‘healthy’, ‘balanced’, ‘active’, or socially ‘contributing’ individuals by taking up the types of occupations discursively promoted as doing so. Addressing human occupations as a technology of the self and as something that is governed, raises questions of how such governing occurs; such as how particular types of occupations become viewed as ideal, possible, meaningful, while others, at the same time become excluded or marginalized as irresponsible, unhealthy, risky and so on. For instance, discursively framing certain occupations (or their lack) as a ‘risk’ factor for illness, crime, poverty, injuries and so on, or certain individuals and collectives as being ‘at-risk’ or ‘a risk’ due to their doing and non-doing, creates and accesses human occupation as a terrain for action and intervention. Therefore, this framing can be understood as a power strategy, which connects specific knowledge about occupation with forms of social regulation and individual self-government (Lemke, 2002).

As no occupation is ‘good’ or ‘bad’, ‘healthy’ or ‘unhealthy’, ‘risky’ or ‘safe’, in itself, a governmentatibility perspective on occupation draws attention to “the more subtle, often
unnoticed ways that power operates to influence what individuals and collectives come to view as what they can and should do in their everyday life” (Laliberte Rudman, 2010, p. 55). Laliberte Rudman (2005, 2010, 2012), merging a governmentality perspective with an occupational science perspective coined the term ‘occupational possibilities’. Underlining that occupation is intimately linked to power relations, she defines occupational possibilities as:

the ways and types of doing that come to be viewed as ideal and possible within a specific socio-historical context, and that come to be promoted and made available within that context. Occupational possibilities refer to what people take for granted as what they can and should do, and the occupations that are supported and promoted by various aspects of the broader systems and structures in which their lives are lived. (Laliberte Rudman, 2010, p. 55)

Consequently, a governmentality approach attends to current critiques in occupational science which stress the need to attend to the complexity of occupation as a socially and politically constructed phenomenon (Whiteford & Wright-St. Clair, 2004) and to move beyond individualistic approaches to the study of occupation (Dickie et al., 2006; Whiteford & Hocking, 2012). Using a governmentality perspective fosters attending to how occupation becomes possible and meaningful, that is, through which rationalities and technologies it is shaped and how this shaping aligns with, and reproduces, social conditions and power relations.

3.1.5 Conclusion

As argued, adopting governmentality as an analytic perspective in this project means that the focus is on government as a practice - as something that takes place within everyday life, through various rationalities and technologies, which shape ‘possible fields of action’ (Foucault, 1982). A particular strength of a governmentality approach is that it provides theoretical ‘tools’ to analyze how such possible fields of action are shaped, governed and acted upon by drawing on specific modes of thought, practices and subjectivities. This framework fits well with the overall research objective of this study which was to understand how risk discourses are taken up to govern everyday occupation and to understand how risk discourses operate in the construction of subjectivity and related occupational possibilities. To summarize, drawing upon governmentality as an
analytical lens, the focuses and interest of this research lies in the specific ways in which risk is calculated within particular historical conditions (such as in an ‘aging society’), which technologies may be found within risk calculations (such as mobilization of individual responsibility), the practices that flow from identified risks (such as ‘risk management’, ‘risk assessment’, and ‘prevention’), and the authorities, truth programs (such as neo-liberal agendas) and social imaginaries (such as an anticipated ‘grey Tsunami’) that deploy risk and its techniques and draw their inspiration from it (Dean, 2010a).

While a governmentality framework provided a beneficial theoretical lens for concepts such as discourse, power/knowledge and subjectivity to frame the research objectives, critical discourse analysis, described next, provided a research methodology to explore how power relations and subject positions are produced in and through discourses addressing the aging driver.

3.2 Research methodology: Critical discourse analysis

Critical discourse analysis (CDA)

Critical Discourse Analysis (CDA) encompasses a broad variety of theoretical and methodological approaches; it is neither based on a single theory, nor is it adhering to a unified research methodology (Cheek, 2004; Hardy, 2001; Wodak & Meyer, 2009a). The diversity of possible theoretical and methodological approaches is considered a strength, rather than a problem (Cheek, 2004; Laliberte Rudman, 2013; Wodak & Meyer, 2009a), but requires researchers to explicitly provide the theories which informed their approach. Notwithstanding the variety and richness of different perspectives, diverse understandings of central terms, and various approaches to analysis, there is some agreement about CDA’s ‘common ground’ (Phillips & Hardy, 2002). CDA studies join in their interest and assumption of discourse as a form of social practice, their focus on power relations, and their critical intent (J. E. Richardson, 2007; Titscher, Meyer, Wodak, & Vetter, 2000; Wodak & Meyer, 2009b). Generally speaking, critical discourse analysts aim ‘to link linguistic analysis to social analysis’ (J. E. Richardson, 2007). They draw attention to discourse as a form of social practice that is vital in constituting social reality.
CDA studies are grounded in the assumption that social reality is produced and made real through discourses, which is why social relations and inequalities cannot be fully understood without reference to the discourses that give them meaning. Studies, however, differ in the theories they employ to conceptualize and explore this relationship between discourse, power and social reality and consequently, in their analytic focus and objectives. The previous section, outlining the key foci of the analytic perspective chosen, articulates and positions this study as a governmentality-informed CDA.

**Governmentality-informed CDA**

This study, articulated as a governmentality-informed CDA, defines discourse as “structured collections of texts, and associated practices of textual production, transmission and consumption, located in a historical and social context” (Hardy & Phillips, 2004, p. 300). Discourse and power are viewed as ‘mutually constitutive’, that is, discourses are seen as shaping social relations and social relations shape who ‘seizes’ discourses and in what ways (Hardy & Phillips, 2004). In this study, discourses, in line with a governmentality perspective, are of particular analytic interest as they serve to delimit and make possible what can be said and done about phenomena such as risk or the older driver. Hence, discourses, as previously stated, are not simply reflecting social reality, but rather actively producing it: they make social reality possible. By categorizing and giving meaning out of an otherwise meaningless reality, discourses bring particular realities into being, while at the same time, excluding others (Hardy & Phillips, 2004).

Discourses are of interest, because they frame ‘conditions of possibility’ (Hardy & Phillips, 2004). By providing a set of possible statements about an issue, such as the ‘older driver’, discourses both enable and limit how this issue is thought about, what can be done about it and who has the authority and responsibility to act (Ballinger & Cheek, 2006). Therefore, discourse is seen as a main means through which governing occurs, as Hardy and Phillips (2004) point out:

> Discourse governs the way that a topic can be meaningfully talked about and reasoned about. It also influences how ideas are put into practice and used to regulate the conduct of others. Just as discourses ‘rules in’ certain ways of talking about a topic, defining an acceptable and intelligible way to talk, write or conduct oneself, so also, by definition, it ‘rules out’, limits and restricts other ways of
Thus, discourses provide the systems of knowledge through which reality is perceived, experienced, and (re)produced in a certain way (Mills, 2003). As Parker states, discourses “allow us to see things that are not ‘really’ there, and (...) once an object has been elaborated in a discourse, it is difficult not to refer to it as it were real” (Parker, 1992, p. 5, emphasis in original). Therefore, the subjectivity of an ‘aging driver’ does not pre-exist outside discourses. This is not to say, that the discursive stance in CDA and within this study denies material reality (Phillips & Hardy, 2002; Wood & Kroger, 2000). For an individual to be identified by others as an ‘aging driver’, there must be pre-existing discourses available, providing a particular set of statements, knowledges, and practices which are drawn upon to bring this subjectivity into sight. For instance, while discourses and associated practices might constitute an individual as an ‘aging driver’ in one province, the same individual might simply not exist as an ‘aging driver’ in another province. If this individual crosses the provincial border, his or her physical existence will not change. Nevertheless, being constituted as an ‘aging driver’ in one, but not in another province might produce and shape different practices and material effects. A governmentality-informed CDA, forefronting the productive nature of discourses, aims to identify discourses and to analyze the effects they produce, so that certain ways of governing become possible. As Mills (2004) explains:

a discourse is something that produces something else (an utterance, a concept an effect), rather than something which exists in and of itself and which can be analyzed in isolation. A discourse structure can be detected of the systematic of the ideas, opinions, concepts, ways of thinking and behaving which are formed within a particular context, and because of the effects of those ways of thinking and behaving (p.15).

Data and analysis approaches in CDA

Since discourses are realized and can be found at work in texts (Fairclough, 1995; Parker, 1992), CDA employs texts as their empirical data. Following Hardy and Phillips (2004), ‘text’ can be defined as “any kind of symbolic expression requiring a physical medium
and permitting of permanent storage” (p.300). Accordingly, CDA studies employ various types of texts, such as toys (van Leeuwen, 2008), cartoons (Hardy & Phillips, 1999), games (Millington, 2011), newspapers (Laliberte Rudman, 2003), university advertisements (Askehave, 2007), or a diagnostic manual of mental disorders (DSM-IV) (Crowe, 2001). For the presented study, I chose to employ information brochures targeting aging drivers and/or their significant others to trace discourses about risk, driving, and aging driver subjectivities. This choice is outlined and justified in more detail when describing this study’s methods.

For data analysis, CDA researchers employ various methods, tailored to their specific study objective, methodology, and texts (Wodak & Meyer, 2009a). Main approaches to data analysis in CDA are various methods of ‘deconstruction’ and the use of linguistic tools drawn from critical linguistics (Fairclough, 1995; J. E. Richardson, 2007; Wodak & Meyer, 2009b). Broadly speaking, deconstructive approaches involve a certain way of reading and investigating texts, which does not aim to find ‘the’ meaning within a text nor to reveal its underlying ‘truth’; it rather aims to expose and ‘unsettle’ implicit meanings and assumptions on which those meanings are built, including a text’s taken-for-granted perspectives, the used categorizations, binary oppositions, and so on (Cheek, 2000; Fook, 2002; Schwandt, 2001). Linguistic tools and concepts, such as syntax, mode, tense, actors, and so forth have also been influential and valuable means within the analysis process in CDA (J. E. Richardson, 2007; Wodak & Meyer, 2009a). This study draws upon both methods of deconstruction and critical linguistics. The specific methods of analysis employed in this governmentality-informed CDA are described in the next chapter (Chapter 4).

Critical intent

Critical discourse analysis (CDA) studies share a critical intent and focus on social problems (J. E. Richardson, 2007; Wodak & Meyer, 2009a). By analyzing texts, their language use and the discourses produced and circulated within them, CDA studies aims to reveal “opaque as well as transparent structural relationships of dominance, discrimination, power and control as manifested in language” (Wodak & Meyer, 2009a, p. 10). Critical discourse analysts argue that “if (...) language use contributes to the
production of social life – then, logically, discourse must play a part in producing and reproducing social inequalities” (J. E. Richardson, 2007, p. 26). Articulating and illustrating the potential limiting or marginalizing effect of particular discursive frames and discourses, CDA aims to open up the space for other discourses and ways of thinking (Cheek, 2004). In line with Fook, this study is based on the position that it is essential to question what seems to be ‘natural’ and taken-for-granted, because discourses are powerful, when “they are unquestioned and all players, even those who do not benefit, uncritically accept them. In this sense, their power lies in the degree to which they are unquestioned” (Fook, 89). In response, critical discourse analysts, investigating discourses as a social practice, endeavor to contribute understanding of how discourses create and maintain power relations and inequalities by holding particular ways of thinking and acting in place, which at the same time exclude alternative ways. The critical stance taken in CDA is not an end in itself. Highlighting the critical potential of governmentality as an analytic perspective, Bratich (2003) emphasizes that Foucault’s work views ‘thought’ not as an end of itself, but as having very practical, concrete effects for political action, because “as soon as one can no longer think things as one formerly thought them, transformation becomes both very urgent, very difficult, and quite possible” (Foucault, 1990, p. p.155).

Reflexivity

A further important methodological element in a governmentality-informed critical discourse analysis (CDA) is reflexivity (Jäger & Maier, 2009; Wodak & Meyer, 2009a). As in all qualitative research methodologies, reflexivity in this study is viewed as more than the critical examination of potential sources of ‘bias’; reflexivity emphasizes that the researcher is “part of the setting, context and social phenomenon he or she seeks to understand” (Schwandt, 2001, p. 224). Governmentality and critical discourse analysis scholars openly recognize that research is never value free and is always carried out from a position (Alvesson & Sköldberg, 2009; Milani, 2009). Furthermore, the underlining methodological perspective in this study emphasizes that discourse cannot to be thought of as ‘external’ to people; accordingly, the researcher herself is always part of and shaped by the discourses she seeks to analyze, critique, and at the same time produces (Cheek,
2004; Jäger & Maier, 2009; Milani, 2009; Mills, 2004; Schwandt, 2001). Therefore, engaging in reflexivity becomes an important methodological element in CDA.

Up to this point in the thesis, I have engaged in reflexivity with regard to myself and the position of this study in several ways. I began this thesis by providing information about my professional background and how I became interested in the overall research objective (Chapter 1). I have also argued, why I have chosen to focus on the case of the aging driver, which I understand as a particular problematization (Chapter 2). In the previous sections of this chapter (Chapter 3), I have made my theoretical and methodological assumptions explicit. This is continued below in describing the research methods I used, as well as the strategies that I chose to engage in reflexivity during data searching and analysis. In the section below, which completes this methodology chapter, I share some of my personal reflections about my position in relation to the topic of this research.

3.2.1 Positioning myself

As stated, by choosing a governmentality perspective and critical discourse analysis, I take a critical stance in this work and aim to ‘unsettle’ familiar and taken-for-granted ways of thinking and of doing. To be honest, the many complexities inherent in the issues of ‘risk’ are often and continue to be unsettling for me as well. When I ride my bike to the university, I do not want to be run over by a car. I value means that make traffic safer and want to be able to move safely without being injured by someone who cannot control his or her car or follow the traffic rules. However, I also believe that life is not safe. While certainty might at the first glance feel better than uncertainty, I aim to promote through my work that human life is uncertain, diverse, and risky - and that this is part of what makes it rich. For me, errors, unwanted outcomes, suffering and death are part of human life and need to be acknowledged as such (Sayer, 2009). Stating this, I am not romanticizing events or conditions that make people suffer, such as impaired driving – I am aware that such a position can also be harmful. However, in my opinion, accidents, illness and losses will always exist. Thus, I resist re-constructing all accidents as ‘preventable injuries’ (Davis & Pless, 2001) or most health problems as avoidable and preventable. For me, framing accidents, ill-health, and suffering as ‘preventable’ or
‘controllable’, will lead to blaming and direct questions towards who had let it happen, whose fault it is, and why it had not been prevented (Lupton, 1999b), instead of what can be done to alleviate suffering and to ‘better’ the situation. Within my everyday life, I, for instance, observe that sharing the information that someone personally known has got cancer is increasingly followed by the question if this person has smoked, instead of how this person is doing. If so, it is implied that the person could somehow have prevented their unfortunate position, and the talk, as well as compassion dries out quickly. Others make the valid point that not all differences in late modern society are differences of lifestyles as it is increasingly promoted (Webb, 2006).

I am not against driver safety programs. This is not the focus of this work. However, I think that ‘the aging driver problem’ is not an individual problem nor can it be solved by aging individuals and their families alone or by creating ‘more responsible’ aging drivers. This research is rather driven by the concern that the contemporary shaping of the ‘aging driver problem’ and obsession with risk is only part of a bigger reshaping of social issues that will marginalize and exclude people and reproduce social divisions and inequalities, as it distracts from the unequal conditions people live in. Therefore, with Rosenberg (1997, p. 43) and others I share the concern that the “entirely rational attempt to reduce risk through individual suasion [will actually] serve to blame victims and avoid the necessity of dealing with structural inequities” (p.43). Taking a governmentality perspective, I view risk, as well as safety, as discursively produced and as a powerful, political and value-laden conceptualization, that promotes specific styles of thinking and governing. The ways risk and at-risk individuals are increasingly conceptualized and researched concerns me as these ways have great potential of blurring, and thus contributing to structural inequalities, particularly in later life. Personally, I react strongly against the framing, as seems to have become within current popular and academic discourses, of other human beings as a ‘tsunami’ - as if they are inherently, just through their being, a devastating, destructive force to ‘us’. Summing up, with my work, I aim to draw attention to the socially constructed and politicized nature of risk and its effects on possibilities for occupation. My focus on analyzing representations of the ‘aging driver’ is motivated by my concern to ‘make sense out of the present’ and thereby to engage with it (Cheek, 2004; Wodak & Meyer, 2009b).
3.3 Summary

This chapter has outlined and located the methodological approach used in this study, specifically a governmentality-informed critical discourse analysis. As critical discourse analysis (CDA) is strongly based in theory (Wodak & Meyer, 2009a), the chapter began in outlining key analytic foci of this study, which employs governmentality as its analytic perspective. Governmentality assumes that how people govern themselves and others within everyday life is linked to complex ways of how power and ‘truth’ are produced within discourses, by various authorities in social, cultural and political practices. Subsequently, the study was located with the field of CDA, which investigates discourses as social practices that construct social reality. The chapter ended in addressing reflexivity and positioning myself as the researcher.

In the previous chapter, I have positioned this study as critical discourse analysis by outlining its theoretical framework, its methodological assumptions about discourse, and what it means to be critical and the aims of critical discourse analysis. I also outlined the overall objectives of the study. In this section, I outline the specific research questions, as well as methods used in this study.
Chapter 4

4 Methods

4.1 Research questions

As noted in the previous chapter, the overall objectives of this study were two-fold, addressing how risk is discursively taken up to govern everyday occupation, as well as subjectivities and their related occupational possibilities. Based on the choice to focus on the occupation of ‘driving’ for aging subjects, as well as the choice to use information brochures for aging drivers as a relevant type of text, described next, the study’s research questions were:

• How is risk taken up in and referred to within brochures addressing aging individuals as drivers and their families?
• How is the subjectivity of the ‘aging driver’ constituted within brochures that address the occupation of driving in later life?
• What practices are aging drivers and/or their families and significant others urged to engage in order to ‘best’ manage the occupation of driving for this population?

4.2 The research field in critical discourse analysis

While discourses are at work in texts, they come, as Phillips and Hardy (2002) state “not neatly packaged in a particular text or even in a cluster of texts” (p.74). Grounded in their theoretical understanding of discourse, researchers, drawing on critical discourse analysis (CDA), are aware that they “can only trace clues to them [discourses] regardless of how much data they collect” (Phillips & Hardy, 2002, p. 74). The challenge of data collection in this CDA thus is not to find ‘all’ possible texts ‘out there’, but rather, to decide which texts to choose in order to best trace discourses of interest (Jäger & Maier, 2009; Phillips & Hardy, 2002).

Moreover, and consistent with the constructivist epistemological position I take in this work, the research field “is not out there waiting to be described by researchers” (Cheek, 2000, p. 126), it does not exist independent from the researcher and the questions she poses and pursues. Rather, the research field, and how it is represented by texts, is
dynamic and emerging in an ongoing interplay between its construction and the researcher’s understanding of the field (Cheek, 2000). Consequently, within CDA, gathering, selecting and analyzing relevant empirical data (i.e., texts) for a research study are interwoven tasks. These research tasks inform, feed into and build on each other - at times ‘messily’ resisting a rather traditional assumption of research as a linear, clear, and sequential process. In fact, as Wood and Kroger (2000) state, gathering texts and constructing a research field for analysis out of them can even be understood as one purpose of the analysis. Nevertheless, while gathering and selecting texts needs to be provisional and emergent, it is at the same time a systematic and careful scholarly process, grounded in a study’s research questions, theoretical framework and methodology (Cheek, 2004; Phillips & Hardy, 2002; Van Dijk, 1997; Wodak & Meyer, 2009a). The systematic process used within this study will be now outlined, first outlining the rationale for the field constructed and then outlining the data collection process utilized.

4.2.1 Constructing the research field for this study

A primary goal of data collection in CDA is to choose the empirical materials which - in relation to a study’s research questions - generate a data-rich body of texts that can be expected to offer new insights into how the social phenomenon under investigation is constituted (Phillips & Hardy, 2002). In this study, I constructed the research field from commonly available, in-print information materials that target aging drivers and sometimes their families. Such information materials are produced to be given to and used by aging drivers and their families within their everyday life contexts, and are published by various types of organizations and institutions, such as by governmental agencies, senior associations, insurance agencies, motor associations, and professional associations. These texts encompass a broad variety of types and formats, such as booklets, leaflets, pamphlets, self-tests, or information sheets, which, in this study, are
collectively referred to as ‘information brochures’\(^8\). Despite their heterogeneity in authorship and format, as a specific type of texts, the included information brochures shared three characteristics: 1. they were explicitly produced to provide specific knowledge about driving and aging (i.e., to ‘inform’); 2., they were designed to provide this knowledge to a particular group of subjects (i.e., aging individuals and, at times, their families); and 3., they were readily available, in a hard-copy, portable format that could be easily accessed by aging subjects and their family members.

From the theoretical perspective I adopt in this thesis, information brochures are viewed as everyday and ‘naturally occurring’ texts that form and inform discourses pertaining to driving in later life. I expected that information brochures for aging drivers, produced in various webs of power, would provide rich data regarding how driving is discursively constructed in relation to aging and how the subjectivity of the aging driver comes into being. My decision to critically examine information brochures for aging drivers was guided by four main rationales. First, the chosen texts are explicitly produced for aging drivers and their families. As a result, I expected these texts to contain rich information on how the subjectivity of the aging driver is discursively constructed - one of the main research questions in this study. This expectation was based on the assumption that texts which are explicitly published to ‘target’ and inform a particular group of subjects need, at the same time, to constitute these subjects as somehow ‘different’. Simply said, there would be no sub-group to target if their members would not vary in some way from members of the ‘main group’ (Castel, 1991). Thus, to effectively address a particular group of subjects, information brochures need to discursively establish why, when or which subjects should think about themselves as a member of the targeted group.

Second, information brochures, as a specific type of texts, commonly provide information that aims to address subjects in their everyday practices. In public health, health promotion and health education, information brochures are traditionally viewed as an important means of ‘knowledge translation’ and dissemination (Murphy & Smith, 1993);

\(^8\) For a better readability I generally refer to the variety of included texts as ‘information brochures’ (or ‘brochures’), a term that underlies their shared characteristics. For a detailed description of the included texts, see section 4.3.4 of this chapter.
they aim to ‘translate’ and disseminate scientific knowledge to a ‘lay audience’ so that the general public can take up, act upon, and integrate particular knowledges in their everyday lives (Lupton, 1995). For instance, many health brochures, drawing on risk discourses, provide practical advice on how one can alter one’s everyday practices (such as stop smoking, monitor weight, reduce sedentary activities) and make informed choices that minimize outlined risks (Lupton, 1995; Petersen, 1996, 1997). Hence, information brochures for aging drivers were expected to outline rationalities and self-technologies addressing how aging subjects should self-govern their everyday lives and practices, particularly the occupation of driving.

Third, information brochures are positioned in an interesting discursive space; they are neither considered as ‘scientific’ texts, nor as mere ‘popular’ texts. This ‘hybrid’ position between different types of texts generated a valuable discursive field for my research and its theoretical framework. For instance, in academia, information brochures are commonly viewed as ‘grey literature’, a classification that encompasses “a whole range of difficult-to-define publications, not usually available through the normal bookselling channels” (Auger, 1994, p. ixx). Since grey literature escapes main mechanisms of bibliographical and disciplinary control, such as peer-review, it is often devalued within the academic community as having the potential of being imprecise, vague, or of less ‘truth’ quality. However, when compared to scientific literature, grey literature is especially recognized for frequently addressing ‘matters of public concern’ (Auger, 1994) and for its ability to disseminate knowledge at much “greater speed, greater flexibility and [with] the opportunity to go into considerable detail if necessary” (p.1). Further, some grey literature, despite its lower status within scientific discourses, is produced from a position of expertise. That is, information brochures for aging drivers were expected to be produced by a range of organizations and institutions that claim to have a particular authority with regard to the topic. Moreover, from a discursive analytic perspective, information brochures for aging drivers, positioned in-between scientific and popular discourses, are fascinating ‘hybrids’ in which different types of knowledges (such as scientific and experience-based knowledge) overlap, compete, draw on, or question each other. As Auger (1994) states, many texts, classified as grey literature “deal with issues at the uneasy interface between professionals and enlightened laymen”
This ‘uneasiness’ as Auger describes playing out within grey literature, is of particular value for this study and its theoretical perspective as it indicates potential power struggles. Hence, information brochures, positioned in the realm of grey literature, were expected to generate a valuable, heterogeneous discursive field for understanding how, by whom, and referring to what knowledges and truth claims the subjectivity of the aging driver and according practices are constructed.

Fourth, and finally, information brochures are well suited for this critical discourse analysis as they provide actual examples of language in use. While the value of a specific category of data ultimately depends on what a researcher is studying, many studies stress the particular value of ‘naturally occurring’ texts for CDA (Kress, 1993; Phillips & Hardy, 2002). Such texts provide empirical material, not specifically generated for a research purpose (such as an interview), but already existing - constantly produced and circulated within various social arenas and everyday settings, such as popular media, work places, or policies. Although the governmentality-informed perspective framing this study contests the term ‘naturally’ occurring, it is especially their seemingly ‘natural’ presence within everyday life contexts and practices that makes these ‘everyday, innocent, and innocuous’ (Kress, 1993, 174), mundane texts a particular valuable data source for this study.

In summary, this study’s research field was constructed out of information brochures for aging drivers and their families. As these texts are explicitly produced by various organizations to provide knowledge about aging and driving that addresses subjects in their everyday lives and driving, they were expected to contain relevant, timely and significant empirical data to understand how the everyday occupation of driving is discursively constructed in relation to aging and how the subjectivity of the aging driver comes into being.

These texts are neither ‘naturally’ occurring, nor just ‘occurring’, as if they were passively happening in the background. Rather, these texts, and the discourses within them, are produced in and produce webs of power and as such, can have significant effects on people’s lives and possibilities.
4.3 Data collection

Whereas the previous section described the rationales that guided the construction of the research field for this study, the following section describes the processes of data collection used to build a body of texts for critical analysis. This section outlines inclusion and exclusion criteria as well as the search strategies employed. In addition, the process of data collection and the body of texts selected are described.

4.3.1 Inclusion and exclusion criteria

In addition to the ‘information brochures’ being a type of grey literature produced to convey a particular knowledge about aging and driving to the general public, and targeting aging individuals and/or their families, included texts needed to: (i.) focus primarily on aging and driving; (ii.) be part of the Canadian context; (iii.) be publicly available at the time of data collection, that was, in the year 2010; (iv.) be produced at the provincial or national level; and (v.) be in the English language. In addition, as detailed below, several exclusion criteria were used.

These inclusion criteria evolved and were refined in interaction with ongoing analysis. For instance, originally, it was assumed that included information brochures would address the aging driver only. However, during the process of collecting and analyzing the first information brochures, it was found that families and significant others are a significant part in the construction of the aging driver. For instance, brochures published ‘for seniors’ sometimes included a section, which called upon family or significant others to become watchful and to take subsequent action if the driver was constructed as non-ideal (e.g., “SPOUSES, FAMILY, FRIENDS – watch for signs”, B\textsuperscript{10}, p.13). As well, sections of brochures ‘for families’ or significant others frequently addressed and called upon these subjects as future aging drivers (e.g., “Plan early… If you are discussing retirement for a family member (or yourself!), take the same careful approach…”, K, p.3). Because of these observations, the decision was made to refine inclusion criteria and

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\textsuperscript{10} In this thesis, I integrate direct quotations and visuals from the analyzed texts in my writing. Capital letters (e.g., A, B, C) indicate the text source, each text’s full reference is provided in Appendix D.
to also include information brochures that address aging drivers and/or families and significant others. Additionally, to establish further boundaries for the current study, it was decided to focus on information materials provided in the Canadian jurisdiction and produced on a provincial and national level only. These inclusion criteria were defined, as this study aimed to understand how the aging driver is constructed in the Canadian context, and also because local information brochures are not accessible in the same ways to a systematic search.

Since the interest of this study focused on how the ‘normal’ aging driver was constituted, texts that centered on driving within the context of a so-called age-related or medical condition (such as diabetes, stroke, or Alzheimer’s disease) or on other forms of ‘deviant’ driving (such as drinking and driving, or texting and driving), were excluded. For instance, the Canadian Association for Occupational Therapists provides a series of five different pamphlets, all referring to the aging driver in their title. In this case, three of the five pamphlets were excluded, as their subtitle indicated that they centered primarily on driving with an age-related medical condition (i.e., “Keeping on the go: Driving safely as you age – Driving & stroke”, “Keeping on the go: Driving safely as you age – Driving & Alzheimer’s disease”, “Keeping on the go: Driving safely as you age – Driving & diabetes”, emphasis added). The remaining two pamphlets were included (i.e., “Keeping on the go: Driving safely as you age - Information for older adults”, “Keeping on the go: Driving safely as you age - Information for families of older adult drivers”).

Also excluded were texts only provided on an organization’s website (e.g., “Tips for Senior Drivers“), but not available as a hard-copy. To establish methodological boundaries, homepages developed with the purpose of informing aging subjects about driving in later life (e.g., “Older Drivers in Canada” or “HELPING Aging Drivers”)

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were excluded. Even though they had a similar purpose, web-based texts would have required using different methods for data analysis, as they, for instance, often provide information in an interactive way (such as by embedding hyperlinks). Excluded were also web-based tools, such as “DriveSharp” (“Cut crash risk by up to 50%: What’s my crash risk?”\textsuperscript{14}) or videos (“Are you a mature driver? Are you concerned about a mature driver?”\textsuperscript{15}).

As I do not speak nor read in French, this study included brochures in the English language only. However, during the data search, it was found that at the provincial and national level, information brochures were typically produced in both languages. Thus, this study also includes two texts from Quebec. In cases where decisions regarding the above inclusion criteria were not clear cut, committee members were consulted.

4.3.2 Search strategies

Working within the study’s inclusion and exclusion criteria, three search strategies were used to find relevant texts and construct the research field (Figure 1). The three strategies, using organizations, keywords, and already gathered texts to find other texts, can be described as a top-down, bottom-up, and snowball approach to data collection. All three search strategies were repeatedly conducted, so that understandings gained throughout the search process and analysis were integrated iteratively. For instance, while keywords used were initially theory-driven and guided by the research questions, ongoing analysis led to an understanding of some discourse specific ‘jargon’ (e.g., the term “drivers 50+”) which was subsequently added as a keyword to find relevant texts. As well, when one agent’s website provided a link to another agent who had previously not been thought of or known (e.g., The Canada Safety Council, a “not-for-profit, non-government organization”\textsuperscript{16}), the latter was subsequently systematically searched for additional

material. Such understandings gained during data searching were documented within research notes.

**Figure 1:** Constructing the research field

The threefold search strategy in this study represents a combination of theory-driven and data-driven approaches. Guided by the study’s purpose and its theoretical and methodological framework, the employed search strategy can be viewed as analogous to what has been described within qualitative methods literature as ‘purposeful sampling’, that is, the purposeful search for and selection of information-rich cases (Patton, 1990). The search strategies were carried out in the World Wide Web, which turned out to be a fruitful place to access relevant brochures. The web was chosen, as it has become an important dissemination channel for grey literature (Auger, 1994). Besides representing a significant means to disseminate information to and about aging drivers, the web also provided a feasible tool to systematically obtain a broad variety of relevant texts across Canada that would have been otherwise difficult to obtain. This was also highlighted by the observation that all theoretically identified organizations in this study had a web
presence. Moreover, when contacting organizations directly, it was learned that in-print publications, publically distributed to individuals (such as in local offices), were typically made available in a downloadable electronic format on an organization’s website; if not, they were still listed on the website, often combined with an invitation to order publications of interest. These observations underlined that using the web for data collection was a good strategy to find relevant information brochures.

**Top-Down approach**

The first strategy used can be described as a ‘top-down’ approach to data collection. For this search strategy, an initial list of organizations, associations, or initiatives that could be conceptualized as being involved in practices related to driving in later life was generated. Subsequently, all identified agents on the list, comprising the ‘top’ tier, were systematically attended to, and one by one, searched ‘down’ to find relevant texts. The initial list of organizations was based on several theoretical assumptions. As stated, the governmentality-informed perspective I take in this study argues that government does not solely occur through the state, but rather in various webs of power (Foucault, 1991). While state-based organizations, such as Ministries of Transportation, produce information about aging drivers, so do a number of other organizations, such as automobile associations, insurance companies and boards, senior organizations, research knowledge translation initiatives, and professional associations. Hence, texts on the aging driver are being produced within and through many organizations, subsequently termed as ‘agents’ to underline their active part within the formation of the aging driver discourse. Based on these theoretical assumptions as well as discussion with colleagues whose work either involved research or clinical practice relevant to aging drivers, an initial list of types and categories of potential agents who might contribute to the production of the aging driver discourse in Canada was derived. In addition, a general internet search was conducted to identify various agents who positioned themselves (or were positioned by others) as having voice and authority in the aging driver issue. The initial list of potential agents was also presented to the audience of the public research proposal presentation of this study to ensure adequate coverage of key agents. The initial list included the following categories of agents, located at provincial and national levels:
governmental agencies and initiatives (e.g., Ministries of transportation, Transport Canada, Seniors Canada, Public Health Agency of Canada, Public Safety Canada), senior organizations (e.g., Canadian Association for the 50plus, CARP), automobile associations (e.g., Canadian Automobile Association, CAA; Alberta Motor Association, AMA), insurance companies and boards (e.g., Manitoba Public Insurance, MPI), professional associations (e.g., Canadian Association for Occupational Therapists, CAOT; Driving School Association Ontario, DSAO; The College of Family Physicians Canada, CFPC), and research knowledge translation and safety initiatives (e.g., Canadian Driving Research Initiative for Vehicular Safety in the Elderly, CanDrive).

Once an agent was identified, their website was searched for relevant texts that met the study’s inclusion criteria. For instance, the Canadian Automobile Association (CAA) is organized in nine regional clubs throughout Canada (i.e., CAA British Columbia, Alberta Motor Association, CAA Saskatchewan, CAA Manitoba, CAA North and East Ontario, CAA South Central Ontario, CAA Niagara, CAA Quebec, CAA Atlantic). After searching the national webpage for information brochures that met the inclusion criteria, each regional’s club webpage was systematically searched.

Often, potential texts were placed within a ‘resources’ or ‘library’ webpage of an agent’s website. However, there was much variety in how agents’ websites were structured and potential texts would sometimes be found in unexpected places. Therefore, a website’s content was systematically checked by searching all webpages (similar to a ‘hand search’). When an agent’s website provided users with a search engine to search the content of their website, the website’s search engine was also used employing relevant keywords (see bottom-up approach). Once a brochure meeting the inclusion criteria was identified, it was downloaded and printed-out.

Attempts were consistently made to obtain original paper copies for analysis. Obtaining original brochures facilitated multi-semiotic analysis, such as the analysis of details on images and in colouring, visibility of background pictures underlying the text, or intended reading order of leaflets. For instance, in one case, a text was placed over two grey shapes which could only be identified as a question mark and a medical stethoscope.
when the original brochure arrived, but not in the brochure’s electronic version. When agents where contacted via email or telephone to request paper copies, they were also asked if they provided any additional texts to aging drivers or their families, not mentioned on the website, or if they knew of any other texts provided by other agents. No additional material was acquired through this approach. In one case, a brochure available on the internet did not exist as a paper copy anymore and a reprint was, according to the information given, not planned. This brochure\(^{17}\) was excluded, as the text was almost a one to one copy of another included brochure and did not add new data to the final body of texts, except being published in another province. Other than that, all included texts were available and obtained as a paper, in-print format, as well as a downloadable format for analysis.

**Bottom-up approach**

The second search strategy used to find relevant texts can be described as a ‘bottom-up’ approach. Here, the search was performed independently of predefined agents. Rather, a large body of texts (the imaginary ‘bottom’) that referred to aging and driving was identified and searched, using a web search engine (i.e., Google) and a wide range of keywords. Keywords were iteratively refined throughout the various searches and the search progressed ‘upward’ by obtaining only the texts that met the inclusion criteria.

As the study’s overall research interest focused on how driving is governed within everyday life, Google as a commonly-available, mainstream, all-purpose web search engine was chosen to access the intended ‘grey’ literature. The popularity and dominance of this search engine in everyday contexts can also be illustrated by the notion that ‘to google something’ has now become a verb within common language, included in dictionaries\(^{18}\). Because this study’s focus aimed to include only brochures that were provided within the Canadian jurisdiction, advanced tools of the search engine were used

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to narrow the search within the domain `.ca`. When it was learned during the process of data collection that relevant brochures were not always accompanied with a term that indicated this specific text format (such as ‘brochure’, ‘leaflet’, or ‘booklet’), but instead, frequently accompanied with an image of the provided brochure, a second search engine was added that provided images, including or surrounded by the submitted keywords (i.e., Google Image Search). Using Google image Search, the images shown as results could be easily scanned for images of potential brochures and a greater amount of results could be scanned. Especially at later stages in the data search when obtained brochures continually seemed to repeat each other, Google Image Search was found to be more successful in leading to new brochures than a continued search through the vast amount of result pages that Google provided.


Snowball approach

The third search strategy used can be described as a snowball-approach, paralleling ‘snowball sampling’ in qualitative research or ‘snowball referencing’ in literature reviews (Greenhalgh & Peacock, 2005; Patton, 1990). Here, further references, texts, or agents, included in already reviewed texts, were followed. For instance, several agents’ websites provided references or links to texts produced by other agents, often termed as ‘resources’. Similarly, already gathered brochures frequently ended by calling upon aging subjects to actively seek out for more information related to aging and driving, providing ‘contact addresses’ of other organizations or references to other ‘resources’ to do so. These addresses and references were also checked if they contained organizations or resources that had not been considered.
4.3.3 Process of data collection

Data collection began with a top-down strategy searching websites of the identified key organizations at the national level and provincial level. For instance, the website of the Government of Canada was searched first. Here, all keywords in the website’s “Resource Centre: A to Z index” were scanned to find keywords of interest, such as the keyword ‘seniors’, linking to websites of the Public Health Agency of Canada, Public Safety Canada, and Seniors Canada: Working for Seniors. These websites were subsequently checked for publications meeting the inclusion criteria. Additionally, the “A to Z keyword index of Departments and Agencies” was scanned to find departments or agencies (such as National Seniors Council, Service Canada: People serving people, Transport Canada, Transportation Safety Board of Canada, etc.) that might offer relevant publications. Relevant websites were subsequently checked. After searching all relevant national websites and their links for information brochures that met the inclusion criteria, each provincial government’s webpage was systematically searched. Parallel to this top-down strategy, several keyword searches, combining keywords in various ways, were performed (such as ‘aging + driver’, ‘aging + driver + Yukon’, ‘senior + driver + information’, ‘senior + driver + information + brochure’, ‘older + driver + resources’, etc.) and provided links were followed up.

The ‘messiness’ of this iterative, multi-layered strategy search and the plethora of results was managed through on-going documentation. Documentation described how websites of particular agents were searched, how decisions regarding inclusion and exclusion of texts were made, and how brochures were found and distributed, as well as some contextual understanding gained within the various search processes. For instance, for each agent that provided an included text, the self-description on the agent’s website (‘About us’) was read to understand how an agent positioned itself with regard to aging driver and related issues, such as health, safety, or seniors’ issues. Documentation further included analytical and reflective notes of the data collection process. For instance, in the early stages of data collection, I was increasingly discouraged that I did not find any ‘new’ texts, but that “everyone just seems to plagiarize and copy from everyone” (Notes, May 14, 2010). This observation was noted, reflected upon, and later reviewed during
data analysis, where the incorporation of similar text fragments between different brochures became rather seen as a sign of the strength of the analyzed discourse.

The search showed that - within the realm of aging and driving – Canadian organizations, websites, and texts were closely linked, drawing upon or referring to American sources. Considering this observation, while at the same time holding the inclusion criteria “provided within the Canadian jurisdiction”, I developed a “one-click rule” (e.g., Keller, Labelle, Karimi, & Gupta, 2002). That is, to be included as part of the Canadian context, an information brochure could not be more than one click away from the link listed. For instance, if a Canadian website provided a link that directly opened a brochure by clicking on the link, the brochure was included; if a Canadian website provided a link to an American website, but the brochure had to be clicked on the American website, the brochure was not included. The following snapshot (Figure 2) of a webpage of the Alberta Motor Association (AMA) represents a visual example of how inclusion decisions were carried out. The first brochure listed in the snapshot (Senior’s Transportation Guide Edmonton) was excluded, because it referred to the City of Edmonton, and thus, was neither provincial, nor national. The next four information brochures were included, although they were all produced by two American organizations:
Figure 2: Example snapshot of a webpage part

The two ‘worksheets’ (Transportation Cost worksheet, Getting There Worksheet), originally authored by The Hartford, an American Insurance company, were included; they opened when clicking the link. The last two information brochures (Drivers 55 Plus, How to Help an Aging Driver), both published by the American Automobile Association (AAA) were included; the Canadian website from which the snapshot was taken, states that these two brochures are “available at any AMA center” and, thus, distributed at the provincial level within Canada. Similarly to the Alberta Motor Association (AMA), the CAA Saskatchewan distributes three American brochures within Canada\(^\text{19}\) - as printed copies, but also by providing links on their website, opening these brochures; these three brochures were included as well. However, any other information brochures that The Hartford and the AAA provide on their websites were not included.

Overall, it was found that the three search strategies complemented and confirmed each other well. Frequently and repeatedly, the same brochures were found, although different search strategies had been used. This was considered to be an indicator that central texts

\(^{19}\) “CAA Saskatchewan distributes a variety of brochures, including: (…), The older and Wiser Driver, Car Fit, Drivers 65 Plus: Check your own Performance”, Retrieved March 13, 2010, from http://cask.ca/safety
had been identified, and that the list of agents who position themselves with regard to the topic was sufficient. All three search strategies were conducted repeatedly and at various stages during the research process, until the body of texts for critical analysis was built. The decision to cease data search was informed by the achievement of theoretical sufficiency (Jäger & Maier, 2009; Phillips & Hardy, 2002; Wood & Kroger, 2000), in accordance with ongoing data analysis. Stressing the interwoven nature of analysis and data search in CDA, the final body of texts is ‘complete’, “not because the researcher finds anything new, but because the researcher judges that the data are sufficient to make and justify an interesting argument” (Phillips & Hardy, 2002, p. 74).

4.3.4 Body of texts

The final body of texts consisted of 24 information brochures. The included information brochures varied with regard to their format and length. Of the 24 texts included, nine texts were categorized as a booklet, four as a pamphlet, two as a leaflet, four as an information sheet, three as a worksheet, and two as a self-assessment sheet. Booklets consisted of multiple sheets, had page numbers, and were stapled in the middle. Their number of pages ranged between 8 and 28 pages, with an average length of 19 pages. Except one, all booklets included images. Five booklets were letter size; four were of half letter size. Pamphlets and leaflets consisted out of a single sheet of paper, printed on both sides and folded several times. Pamphlets had at least eight panels; the two leaflets had less. Pamphlets and leaflets came in an upright up-long format. One leaflet was of smaller size and foldable into pocket size. Information sheets, worksheets and self-assessment sheets consisted of single paper, letter-sized sheets. They were categorized with regard to their main purpose; the four information sheets provided mainly printed text, the three worksheets were to be filled out, with two of them already termed as ‘worksheet’ in their title, and the two self-assessment sheets provided a ‘tool’ to self-evaluate one’s driving.

The information brochures included were produced by an Automobile Association (Alberta Motor Association, AMA; American Automobile Association, AAA; British Columbia Automobile Association, BCAA; Canadian Automobile Association, CAA), by an Association of Health Care Professionals (American Association of Occupational Therapists, AOTA; Canadian Association of Occupational Therapists, CAOT), by a
provincial ministry of transportation (Ministry of Transportation Ontario, MTO), by governmental insurance companies (Saskatchewan Government Insurance, SGI; Société de l’assurance automobile du Québec, SAAQ), a senior organization (American Association of Retired Person, AARP; Canada's Association for the Fifty-Plus, CARP) and a private insurance (The Hartford). One text was a joint project of an automobile, senior, and health care professionals association. Out of the analyzed brochures, 22 texts primarily targeted aging drivers, while two texts targeted primarily significant others of aging drivers, such as family members, partners, and friends. However, the later two texts implicitly addressed significant others as future aging drivers as well, and some of the texts for aging drivers included text sequences that addressed their significant others. A detailed overview of the 24 information brochures is provided in Appendix D.

Many texts included images, such as those illustrated in Figure 3. These images, which encompassed photos, or cartoon-like, humorous or sketchy drawings, shared many similarities. For instance, one text's title page, reproduced in Figure 3, displays five images on its title page, which are typical of the types of images frequently found in the overall body of texts:

![Figure 3: Example images (snapshot text B, title page)](image)
More specifically, images in the information brochures often encompassed one or more of:

1. *an image of a medical scene*, object or symbol, such as a medical exam, pill containers, or a stethoscope (in Figure 3 an older women getting an eye exam);
2. *an image of a driving scene, often a potentially dangerous one*, such as a cluttered traffic scene, a busy intersection, or a night scene (in Figure 3 an older women stopping her car at a crosswalk for a younger women crossing and pushing a toddler in a stroller, dangerously close to the vehicle grill);
3. *an image of individuals positioned close to each other*, implying a caring and loving relationship, such as images of couples and families, standing close to each other, resting the arm on another individual’s shoulder, or one individual looking at another (in Figure 3 an older couple standing close to each other);
4. *an image showing or signifying an active and healthy lifestyle*, such as an aging individual riding a bike, engaging in exercising, gardening, or holding an apple (in Figure 3 an older man energetically walking, carrying a bag of groceries with healthy food lurking out);
5. *an image emphasizing an individual as a driver*, such as a person holding a key, behind the wheel, or standing in front of car, or an image taken from the inside of a car to the outside, positioning the reader within the car and as the driver (in Figure 3: a steering wheel from the reader’s perspective);
6. *an image showing or signifying transportation other than driving*, such as a shuttle-bus, a bus pass, metro ticket, gifts (in Figure 3 an older man walking, assumedly buying groceries without using a car); and sometimes,
7. *an educational or symbolic image*, such as a ‘driving safety cycle’, a vehicle with all suggested safety features, a pencil next to a space for notes, or a traffic stop sign or green traffic light (not represented in Figure 3).

In addition, almost all texts provided ‘resources’ at the end, such as contact addresses, telephone numbers, or websites where ‘more information’ could be found. In this text sequence, organizations frequently referred to each other. For instance, a brochure by an association of health care professionals referred to an automobile association and
governmental agencies for more information, while in turn, a brochure by an automobile association referred to the association of health care professionals.

Intertextuality between the analyzed texts was strong and ‘intertextual chains’ (Fairclough, 1995; J. E. Richardson, 2007) could be identified. That is, some texts integrated or adapted pieces from other texts, often as a one-to-one quotation, though without referencing the other text or marking the quotation as such. Moreover, while a genealogy of the texts was not the focus of this study, which seeks to offer a ‘snapshot’ of how the aging driver is constructed at a particular point in time, many texts or smaller text parts (such as specific ‘warning signs’ for unsafe driving) could be traced back to two key texts. These key texts were identified as the “The Older and Wiser Driver” (n. D.) and the “Drivers 55 Plus: Check Your Own Performance” (1994) booklet, both published by the American Automobile Association’s Foundation for Traffic Safety. Some texts drew upon these texts directly, others indirectly (i.e., drawing upon a text, that itself drew upon the original). For instance, the “Older and Wiser Driver” booklet by the Saskatchewan Government Insurance (SGI, 2008) acknowledges the booklet as “a collaborative effort” (D, p.x1) and thanks the AAA Foundation for Traffic Safety and the Manitoba Public Insurance (MPI) for permission to adapt their publications. These publications, with an identical title (“The Older and Wiser Driver”), were reworked and adapted in producing the SGI’s booklet. For instance, the newer SGI’s “Older and Wiser Driver” (2008) altered the introduction of the original texts by adding a new text sequence about driving as a privilege and not a right, referred to drivers in the province of Saskatchewan, lowered age markers for the onset of age-related changes affecting driving ability from 55 to 50, and pointed to ‘public safety’ much more strongly.

Beside acknowledgements, in which the editorial, intellectual, or financial contributions of other organizations were mentioned, some texts also included ‘disclaimers’. Typically placed in small print at the bottom of the last page, the following text sequences illustrate two examples of such ‘disclaimers’:

The information in this pamphlet is intended for educational purposes only. It does not and should not replace the advice or treatment from a health care professional. *Never disregard professional health care advice or delay in seeking it because of something you have read in this pamphlet* (G, p.5, emphasis added).
This assessment is intended to provide general information only. It is not intended to provide legal or professional advice or to be relied on in a dispute, claim, action, demand or proceeding. BCAA Traffic Safety Foundation, Vancouver Foundation, Victoria Foundation and the Government of British Columbia do not accept liability for any damage or injury resulting from the assessment procedure or information in this publication” (O, p.2, emphasis added).

While disclaimers, as the above, commonly set the boundaries of rights, responsibilities, and liabilities that might come out of the information provided, they are, from the discursive perspective taken in this study, an interesting finding. As I will illustrate later (see Chapter 5, Findings 1), the analyzed texts clearly claim to provide high-quality, authoritative knowledge and called upon aging drivers in imperative ways to act upon this knowledge and to engage in very specific actions. Therefore, it seemed – at first glance - odd to me as a reader to find the information, previously claimed as exclusively ‘true’ and authoritative, sometimes ‘dis’claimed as ‘general information only’ in the a text’s fine-print. However, shifting the legal responsibility for individual actions following this information fully towards the subject fits the overall individualization of responsibility occurring in the texts.

4.4 Data analysis

Critical discourse analysis, as stated, encompasses a broad variety of theoretical approaches to understanding discourses. Accordingly, approaches to data analysis also embrace a broad variety of analytic methods (Ainsworth, 2001; Jørgensen & Phillips, 2002; Phillips & Hardy, 2002; Wodak & Meyer, 2009b). Due to this diversity, there are no ‘gold standard’ templates for carrying out data analysis in CDA. Rather, researchers are required “to develop an approach [to data analysis] that makes sense in light of their particular study and establish a set of arguments to justify the particular approach they adopt”(Phillips & Hardy, 2002, p. 74). Thus, the process of data analysis in CDA can be best described as an individualist approach (Phillips & Hardy, 2002), creatively and systematically customized to match the specific characteristics of the study (Jørgensen & Phillips, 2002), and translating a study’s theoretical underpinnings into productive methods of data analysis (Wodak & Meyer, 2009a). Nevertheless, studying all approaches that other researchers successfully used to develop mine, I identified three key pillars that underlie most approaches to data analysis in CDA. These pillars were integrated into the
approach to data analysis that I developed for and enacted in this study. After describing these three pillars, I will describe how analysis was carried out in this study. The description of how analysis is carried out is divided into two sections, one dealing with the key analytic strategies and devices used and the other attending to the process of analysis.

4.4.1 Key pillars underlying the analysis approach

First, analysis in CDA is theory-informed (Alvesson & Sköldberg, 2009; Cheek, 2004; Fairclough, 1995; Parker, 1992; Van Dijk, 1997; Wodak & Meyer, 2009a). Stressing the vital position of one’s theoretical approach to inform analysis in CDA, there is, as Parker (1992) states, a:

degree of conceptual work that needs to go into the analysis, before the material is touched, and then as the analysis proceeds, it is necessary to step back a number of times to make sense of the statements that have been picked out (p.6).

Guiding the critical discourse analysis to be detailed, systematic and explicit (Fairclough, 1995) theory plays an essential role in supporting her to provide interpretations that go beyond surface meanings and mere commentaries on texts (Alvesson & Sköldberg, 2009; Phillips & Hardy, 2002; Wodak & Meyer, 2009a). For instance, in this study, I drew upon its governmentality perspective to develop an analysis sheet that guided a theory-informed reading of the texts. Such theory-informed analysis protects researchers from focusing on a text’s ‘content’, while ignoring its form and function in producing content, social meaning, and power relations (Fairclough, 1995; Van Dijk, 1997). For instance, all questions on the sheet, such as “Who is called to seek advice and from whom?”, directed me to analyze how the discourses in the analyzed texts functioned with regard to the production of particular power/knowledge relations. In addition, grounding data analysis in theory counterbalances any tendencies of the researcher to get trapped into or swamped away by the data (Alvesson & Sköldberg, 2009; Phillips & Hardy, 2002). Finally, the theory-informed nature of data analysis in CDA also aligns with its critical stance which rejects any idea of data ‘lending itself’ to direct interpretation; it acknowledges that data analysis is never done from ‘no-where’, but always situated (Haraway, 1988).
Second, analysis in CDA is emergent (Jäger & Maier, 2009; Phillips & Hardy, 2002). As characteristic of many forms of qualitative research, data analysis in CDA is a continuous process that is developed and constantly refined in response to the overall research process and the analyzed data (Hardy & Phillips, 1999; Jørgensen & Phillips, 2002). Methods and detailed processes of data analysis cannot be fully planned beforehand as “analytic activity involves an interplay between the data and our notions about it” (Wood & Kroger, 2000, p. 99). For instance, while this study’s analysis sheet was prepared beforehand, it was modified within ongoing analytical processes and in interplay with emerging understandings of the data. The emergent aspect of analyses processes in CDA does not undermine its theory-informed nature. Rather, both elements complement and balance each other well; they support the analyst to carry out an open, creative, and responsive analysis, which is, as well, a systematic, theory-supported, and transparent scholarly analysis (Cheek, 2004; Phillips & Hardy, 2002).

Third, analysis in CDA is multilayered, employing and combining multiple level and foci of analysis (Fairclough, 1995; Jäger & Maier, 2009; Reisigl & Wodak, 2009; J. E. Richardson, 2007). As analysis proceeds, different level and foci of analysis are analytically related and mapped onto each other (Fairclough, 1995; Jørgensen & Phillips, 2002; J. E. Richardson, 2007; Titscher et al., 2000). For instance, the analyst might start with systematic textual analyses and gradually build analysis outwards by including analyses of discursive practices, and by constantly switching foci of analysis within and across texts.

For textual analysis, CDA employs concepts and tools of linguistics (Bloor & Bloor, 2007; Fairclough, 1995; Jørgensen & Phillips, 2002; J. E. Richardson, 2007). However, critical discourse analysts emphasize that a text’s ‘content’ is never independent of its form, organization, and contexts in which it takes place. As form is an important part of content (i.e., what is said is not separable from how it is said) textual analysis in CDA focuses on analyzing and understanding the ‘texture’ of texts (Fairclough, 1995), that is, their form, function, and overall organization.
Accordingly, important foci are the form and function that textual elements such as, vocabulary, grammar, and semantics serve in their use (Fairclough, 1995; J. E. Richardson, 2007). For instance, textual analysis in this study analyzed how subjects within the texts are referred to linguistically (e.g., ‘most older drivers, as a sign of continued good judgement’, ‘other drivers stubbornly deny’) and how dominant ‘referential strategies’ (Reisigl & Wodak, 2001) function in constructing subsequent subject positions, social relations and social values within the analyzed body of texts (such as the subjectivity of a self-aware, responsible, and ‘safe’ individual versus the subjectivity of an inflexible and denying ‘other’, who poses a risk to ‘us’). Another important focus for textual analysis in CDA is the significance of absences (Fairclough, 1995; Kilduff & Kelemen, 2004; Wood & Kroger, 2000). Seeing that a text’s form and organization is never pre-determined, but always the result of choices, the analyst “examines the text in terms of what is present and what could have been but is not present” (J. E. Richardson, 2007, p. 38, emphasis in original). By drawing out what (or who) is recurrently absent when texts frame a particular social issue, analysis aims to offer insights into how dominant problem frames exclude alternative ways of thinking about and approaching the issue. Textual analysis in this study therefore paid attention to common absences within texts; for instance, this study’s analysis sheet contained questions about absences (such as ‘What themes are absent with regard to the outlined problem?’). Related to the significance of absences are further foci, such as presupposition and implicit content. These specific foci provide valuable insights into the taken-for-granted claims that are implicitly embedded in a text (Fairclough, 1995). Thus, in this study, analysis also investigated presuppositions that a sentence such as “Make transportation an important consideration in choosing a retirement home” (K, p.17) contained – such as, that aging subjects have the possibility to ‘choose’ a retirement home, that it is ‘normal’ and expected to move to a retirement home at one point in one’s future, and that subjects can shape their future mobility positively by ‘making’ it important and preparing for it.
4.4.2 Analytic strategies and devices

One of the challenges in critical discourse analysis is that it requires the ability to “examine discourse creatively in all of its multifarious aspects and an open-mindedness to entertain multiple possibilities” (Wood & Kroger, 2000, p. 91). To facilitate an approach to analysis that examined multiple aspects of texts, I drew upon three main devices: the Initial Analysis Sheet (provided in Appendix E), the Sensitizing Devices for Reading and Analysing Texts suggested by Wood and Kroger (2000, pp. 91-95), and Analytic and Reflective Notes written at various stages of the analysis process. These three devices complemented each other well in balancing an open-minded and creative with a systematic and theoretically-grounded analysis. Each device stimulated another degree and foci of critical reading and analysis, so that analysis was neither at risk of becoming ‘swept’ away in the amount of textual data (Phillips & Hardy, 2002), nor becoming constrained by a pre-derived analytic framework that might hinder unexpected readings and interpretations (Wodak & Meyer, 2009b).

Initial analysis sheet

The initial analysis sheet used in this study was developed based on the study’s theoretical framework and its research questions, general and practical suggestions for conducting a CDA (Jäger & Maier, 2009; J. E. Richardson, 2007), as well examples of CDA sheets other authors had successfully employed (Jäger & Maier, 2009; Laliberte Rudman, 2003; Laliberte Rudman, Huot, & Dennhardt, 2009). The initial analysis sheet that I used contained several sections. While the first two sections provided space to record general bibliographical and contextual data about the information brochure that was analyzed, later sections provided guiding questions. These questions drew my attention to various foci, such as, a text’s overall organization, problematization, power relations, knowledges, subjectivities, representation of driving and the aging subject’s body, solution frames, risk and other rationalities, rhetorical means, and how all of these were drawn upon and produced within the text. The sheet was followed for every single text and information was compiled in a word document file, as well as on the brochures. Working with an electronic sheet format provided flexibility in that it allowed considering each text’s unique construction, such as focusing on one section more than
others. However, in later stages of the analysis, such as cross-text and in-depth analysis of selected texts, I drew upon printed copies of the filled out electronic sheets. Having all information ‘around me’ and physically close to the brochures enabled me to effectively connect findings of different al levels and across texts.

During the overall research process, the initial analysis sheet was modified. For instance, as analysis proceeded, the sheet’s form and function were reviewed and modified in accordance with ongoing analysis processes. This happened in a productive interplay with the theoretical framework; new al questions which emerged were reviewed in relation to governmentality theory and included. For instance, initially, the sheet did not contain any questions addressing the body. Once it was found that the aging body was repeatedly addressed in various texts (e.g., driving was frequently constructed in relation to bodily functions), an additional set of questions around the body as an object of governing and related self-technologies (such as, monitoring and optimizing one’s body) were included. Besides their value in facilitating various analysis processes, the sheets also ensured that information gained was transparent and available in a comprehensive manner for each text and for each interpretation at various cycles of the analysis.

**Sensitizing devices for reading and analyzing texts**

While working with theoretically-derived analysis sheets facilitated systematic and theoretically-focused analysis, practical strategies for reading and analyzing texts facilitated my general critical reading skills. Particularly in the very early stages of data analysis, I reread Wood and Kroger’s list of ‘sensitizing devices for reading and analyzing texts’ (2000, pp. 91-95) before I began working with a text more closely. These strategies helped me to read texts in different ways than I usually do. When reading texts for analysis, Wood and Kroger (2000), for instance, suggest considering “whether the critical issue is that something is included, not what it is (its particular content, etc.)”(p.92), replacing a term or modal verb with another one (such as ‘aging drivers with ‘women’, ‘should’ with ‘must’), or actively reversing the taken for granted (such as treating problems as solutions, solutions as problems, strengths as weaknesses and so on). Using Wood and Kroger’s (2000) strategies facilitated me to notice assumptions and truth claims within a text that I took for granted and had not noticed upon an initial reading.
Repeatedly reflecting on the position from which I might take a particular reading for
granted and on myself as the research ‘instrument’, using strategies as the above, assisted
me in avoiding ‘jumping’ to overhasty conclusions that were neither founded in theory,
nor reasonable given the analyzed material.

**Analytic and reflective notes**

Writing notes at different stages of the analysis process further enhanced analysis. In
addition to recording impressions, insights, or specifically data-rich quotations on the
analysis sheets, analytical and reflexive notes were written. To be easily accessed later,
all notes were indexed with a keyword and date. These notes took different forms, such
as free writing about thoughts, summarizing first insights across texts, or drawing visual
understandings. Form and foci of notes altered as analysis moved from early to later
cycles. For instance, earlier cycles of analysis involved more free and open notes about
various ideas that came to mind, while later notes focused more on specifying and
relating ideas, and systematically putting things together. As, well, conceptual drawings
taken at various stages of the analysis were continually reworked, related and modified
until they ‘fit’ and adequately integrated all levels of analysis and texts. One example of
such a visual, reworked many times to eventually depict my final understanding of the
text’s overall rhetorical structure, is provided at the end of the first findings chapter
(Figure 27, Rhetorical structure of texts).

The analytical and reflexive notes facilitated data analysis in two ways. First, writing
itself, requiring description, evaluation, explanation, and reflection, became a valuable
strategy for analysis (L. Richardson, 2000). As an analytic strategy, writing was
particularly used when struggles, tensions, and differences within and across texts were
noticed, but could not be ‘grasped’ nor made sense of yet. Second, documenting
analytical and reflexive thoughts, struggles and insights at multiple levels and times of
analysis also provided a rich resource to facilitate analysis. Once analysis proceeded,
previous information was accessible, could be drawn upon, connected and eventually
merged in an enriching way.
For instance, one of the first overall, unfiltered impressions that I noted during an initial reading of some texts referred to how the texts reminded me of participating in a self-help group program, such as Alcoholics Anonymous or Weight Watchers (“These brochures make me feel like being in a self-help group”, Notes, May 21, 2010). My association seemed to be generated by familiar textures (Fairclough, 1995) in the analyzed texts. In my notes, I reflected on them as “accepting that one has a problem, developing appropriate ‘steps’ to manage and watch the problematic self, consciously ‘avoiding’ situations that put one ‘at risk’, as well as the emphasis on taking on responsibility for one’s behavior” (Notes, May 21, 2010). This very first impression was reassessed, linked and theorized, when at later stages a more detailed understanding of the brochures’ overall rhetorical structure and their key discursive strategies was evolving (e.g., ‘know risks’ by learning facts, ‘assess individual risk’ by seeking self knowledge, ‘work towards reducing one’s risk’ by taking responsible action). The early note was also reviewed when a brochure read later in the process explicitly employed a quotation by the founder of Weight Watchers in constructing mobility as an individual ‘choice’ (“It's choice - not chance - that determines your destiny”, X, p.29). As well, the analytical note, which let me reflect on what it exactly was that seemed to connect ‘driving in later life’ to ‘losing weight’, lead me to find relevant literature, such as the article *Foucault goes to Weight Watchers* (Heyes, 2006), that enhanced my critical analysis of structural elements within the texts which stressed practices of self-care.

### 4.4.3 Process of Analysis

The process of analysis consisted of several iterative ‘cycles of analysis’ (Jäger & Maier, 2009), with each cycle encompassing and connecting the various level and foci of analysis described above. This section describes the two main cycles of analysis: within-text analysis and across-text analysis. Most authors, outlining analysis processes in various approaches to CDA stress the iterative, interwoven and non-linear nature of the analytic process, and avoid identifying specific steps (Jäger & Maier, 2009). Thus, while described separately, these cycles were repeated several times, at various points in time, sometimes performed parallel to another one, overlapped and fed into each other.
The first main cycles of analysis, within-text analysis, always began with an open reading of the text worked with. Reading an information brochure for the first time, I freely noted anything that came to mind on a paper copy of the text. To not constrain potential interpretation early in the analytical process, these initial notes attended more to “the possibility that something interesting was going on, rather than [to] an indication of what it might be” (Wood & Kroger, 2000, p. 92, italics added). Further, as notes were done directly on the text, they also indicated where - with regard to the overall structure – ‘something interesting’ was going on; this was helpful later, when the organization of meaning across a text as a whole was analyzed. These first notes were very broad and contained various initial impressions, observations, and reactions, referring to various textual levels (i.e., form, function, content, and overall structure). For example, initially reading a text, I underlined and commented on words or sentences that drew my attention (e.g., “Keeping on the go… Who ‘keeps’ whom here? And from what?”), marked text sequences that struck me for various reasons (e.g., “This sequence sounds familiar, where have I read this before?”), noted questions that arose while reading (e.g., “Is there mandatory reporting for physicians in Quebec?”), or recorded my reactions that specific text sequences evoked in me (e.g., “Reading this, I really don’t want to age”). Open reading also included a careful ‘reading’ of any other semiotic elements included in the text, such as photographs, symbols, check-lists, or self-tests. For instance, in ‘reading’ a photograph for the first time, I described any detail that I saw (such as “good teeth”, “white hair”, “sweater, leisurely wrapped around neck”, etc.). This strategy of detailed description facilitated me to step outside of taken for granted ‘ways of seeing’ (G. Rose, 2007) and to pay attention to elements of the photograph that would have gone unnoticed at first glance. Any other observations or reactions referring to other semiotic elements were noted (such as, “This cartoon on the title shows seven! alternative transportation options in the background: taking the bus, tram, subway, cab, biking, being driven by a younger person, and walking”).

Following the initial, open reading, an analysis sheet was set up for the information brochure I was working with. After compiling its bibliographical and contextual information, I conducted a reading of brochure guided by the analysis sheet. I now critically systematically explored the text using a theory-informed ‘lens’. For instance,
focused reading was guided by questions, such as “Who is defining the problem and who is addressed as having power to ‘fix’ it?”, “What technologies and practices of the self are the targeted audience called upon to participate in?”, and “How are aging subjectivities constituted as ideal/non-ideal?”. Such theory-informed analysis enabled another level of critically reading a text. Especially when working with the very first texts, I was recurrently surprised by utterances, truth claims and social relations within a text that I had not noticed in my initial reading. The value of the analysis sheet to support systematic, theory-informed critical analysis is reflected in the following excerpt out of my reflexive notes (Notes, Oct. 26, 2010):

I am absolutely struck what one can discover in a text if one has a theoretical lens… I am just analyzing the first brochure, using the analysis sheet. While the sheet with all its many sections feels like a daunting task to fill out (...) I am struck (and excited!) by what it ‘makes’ (or better): helps me to see. There are so many things in the texts that I haven’t even been noticed before - even though, I felt that I already had done a pretty thorough first job when I did the initial reading (...) But now, when I go through the text again (...) having a particular question from the sheet in my mind, all these other things suddenly come to the forefront, to my attention, to the surface. It’s almost like a totally new text (...) Why didn’t I see these things before? Am I so used to read a text in a particular way? In which way? (...) I guess, today’s experience underlines that filling out the sheets is more than documentation of the analysis process; it seems to be another analytical strategy, drawing my attention to particular features and claims in the text, that I don’t ‘see’ and question anymore - as I am so embedded in these discourses too. The sheet helps reading beyond a text’s ‘surface’. It’s significant to have a theoretical framework in one’s work… Boy, today, I feel that I could analyze this one text only for at least a week… (Notes, Oct. 26, 2010)

Parallel to open readings and theory-informed readings, each text was also read using linguistic concepts and tools that have been suggested for textual analysis in CDA (J. E. Richardson, 2007). Reading a text ‘linguistically’ helped me to understand how meaning was created by form and function of particular word choices and sentence constructions, as well as how meaning was organized across a text as a whole. For instance, to draw out implicit meanings, I analyzed a text for particular word choices and sentence structures that have been described in linguistic analysis for particular functions. Richardson illustrates how certain word choices such “as the change of state verbs (stop, begin, continue) or implicative verbs (manage, forget) invoke presupposed meaning in their very use: ‘stop’ presupposes a movement or an action; ‘forget’ presupposes a great deal,
including an attempt to remember” (J. E. Richardson, 2007, p. 63). Textual analysis drew out a text’s underlying assumptions, implicit content, and absences, which were then linked to previous readings and all foci. For instance, in my initial readings of texts, I had marked a particular type of verb choices which were consistently repeated within and across texts (i.e., ‘remain’, ‘stay’, ‘continue’, ‘maintain’, ‘preserve’, and ‘keep’). Texts repeatedly called upon aging subjects to ‘remain’, ‘stay’, and ‘continue’ to be safe drivers, as well as to ‘maintain’, ‘preserve’, and ‘keep’ their body’s driving fitness.

Applying linguistic tools, I investigated which presuppositions and meanings these particular verb choices shared (i.e., these verbs imply that something involuntarily changes to the worse, decreases or might get lost if nobody takes action to ‘keep’, ‘maintain’ or ‘preserve’ it), where in a text and in which contexts they were primarily used (i.e., “these verbs are dominantly used when safety or the aging body is brought up”, Notes, Nov. 3, 2010); and how actors and objects were linguistically related to each other in the process these verbs described. The findings of this analysis (e.g., “these verbs stress that one has to work actively against an underlying process to ‘keep’ one’s status”, Notes, Dec. 10) were then reviewed and related to findings of previous readings.

 Besides critically reading singular texts in depth, I also repeatedly read texts ‘against’ each other. This type of reading formed the second key cycle of data analysis, that is, focused analysis across individual data pieces. Analyzing the texts as a whole, analysis in this cycle focused on similarities, variations, contrasts, repetitions, connections, contradictions, and absences in content, form and function across texts. Often, an across-text analysis cycle began in following up, identifying and searching for commonalities and repetitions, and ended in specifically looking for differences, variations, and absences.

Across-text analysis happened at various times and levels within the overall process and combined emergent and planned ways and foci of analysis. That is, a particular focus of analysis was sometimes stimulated by the texts and sometimes systematically initiated. For instance, when I worked with a new information brochure, I began to notice similar word choices, parallel content, or a familiar line of argument as in already read brochures; that is, the new text reminded me of something I had read or seen before.
Once such formations emerged, they were systematically examined by reading texts parallel to each other and examining the whole body of texts for their existence, variations and absences.

Early on in the process I, for instance, noticed that many texts included numerical representations, such as measures of declining body function or accident statistics. In across-texts analysis, I investigated this observation further, by first identifying and marking all numerical representations in different texts and then analyzing what these shared, in which ways they differed, and what they were. Analysis then followed up on different observations and different paths. For instance, marking all numerical representations across texts lead to the observation that numbers typically seemed to be ‘clustered’ in particular sections of the overall text. These sections were then investigated in-depth, but also with regard to the overall text. That is, it was investigated across texts, if other similarities with regard to other text sections could be identified.

As well, reading more and more texts, I began to notice that all texts seem to consistently provide ‘facts’ about aging and driving. Reading across texts, I marked all ‘facts’ about either aging or driving within each text, reviewed the filled out notes about aging and driving on all analysis sheets, and then investigated these texts sequences in-depth and parallel to each other. In a next step, categories were generated, that grouped similar content across texts in order to understand how aging and driving were constructed. As analysis proceeded, these categories were combined with other levels of analysis. For instance, while engaging in different cycles of analysis, it was noticed, that the constructed ‘facts’ about aging and driving were shared similarities with regard to their content, but also with regard to the ways the content was constructed, such as by frequently including numerical representations. As well, some of the generated categories seemed to follow a particular order to build the overall argument. At this point, various cycles of analysis were combined and analyzed together. For instance, I investigated if numerical representations played a role in constructing aging and driving and if so, the discursive functions they had in constructing a particular content.
As analysis proceeded, more and more al cycles and foci were combined. Once first understandings of the overall rhetorical structure and dominant themes across texts were taking shape, an initial al summary was written. This summary was reviewed and reflected upon within an advisory committee meeting and it was decided that the overall al processes were effective and should proceed in the pursued ways.

Writing up the study represented the final phase of data analysis. As already described, the writing process in itself presents a valuable al strategy. For instance, selecting text sequences that could best illustrate the interpretation offered and finding words to frame this interpretation lead often to reviewing previous analytical notes, finding new aspects, or gaining a deeper understanding of a particular way of construction.

**Ending analysis**

Within critical discourse analysis, data analysis proceeds “until the analyst is satisfied that the research questions have been addressed and that a reasonable reading of the discourse (...) can be offered” (Wood & Kroger, 2000, p. 97). Analysis in CDA can be best described as “provisional until a fairly late stage (though it is ultimately always provisional)” (Wood & Kroger, 2000, p. 23)\(^{20}\). Thus, completeness of the overall analysis is achieved, when the analyst, based on her interaction with the data, ongoing reflexivity and adopted quality criteria, decides that data and analysis are theoretically and methodologically sufficient to offer and justify an insightful interpretation and argument (Phillips & Hardy, 2002). In addition to ongoing reflexivity regarding this study’s analysis process and the decision to end analysis, the thesis advisory committee was also engaged in on-going discussions, as a group and as individuals. Part of the purpose of this more collective form of reflexivity was to receive input regarding the achievement of theoretical ‘sufficiency’ and the strength of the interpretation made.

\(^{20}\)As its underlying epistemological perspective rejects the idea that only one analysis and interpretation is possible, analysis in CDA is ultimately always ‘provisional’.
4.5 Quality considerations

How to best assess the quality and ‘goodness’ of qualitative research is a longstanding debate (Morrow, 2005, p. 1147; Spencer & Ritchie, 2011; Tracy, 2010). While some authors suggest using universal criteria across different qualitative methodologies, others suggest methodology-specific criteria. These positions are not mutually exclusive; some authors have suggested that shared criteria, considerations or principles to address the ‘goodness’ of qualitative research are helpful, but emphasize that qualitative researchers have to identify the meaning of these criteria within the specific methodological paradigm of their study (Morrow, 2005; Spencer & Ritchie, 2011; Tracy, 2010). This is the approach I took with regard to the presented critical discourse analysis. Within the field of critical discourse analysis (CDA), there are only a few discussions about methodologically-specific quality criteria (Wodak & Meyer, 2009a), but quality is highlighted as an area that needs to be attended to (Cheek, 2004; Van Dijk, 1997; Wodak & Meyer, 2009a). While the absence of shared quality criteria is certainly related to the fact that CDA embraces a breadth of different theoretical and methodological approaches, its critical orientation also raises awareness that ‘quality’ and values to assess it are discursively produced as well. Nevertheless, within CDA, there is still some general agreement that ‘not anything goes’ and will count as a CDA (Cheek, 2004; Van Dijk, 1997). In this critical discourse analysis I chose to adopt Ballinger’s (2006) general considerations for the quality of qualitative research. Ballinger has put forth four considerations that can be drawn upon to reflect on the quality of a qualitative study, and emphasized that these considerations can be “enacted in different ways” (p.240) according to the paradigmatic positioning of a study. Moreover, Ballinger drew upon these criteria to reflect upon the soundness of a critical discourse analysis. Subsequently, I discuss the meaning of these considerations with regard to CDA, and how I addressed each in designing and carrying out the presented study.

4.5.1 Coherence

Coherent studies “eloquently interconnect their research design, data collection, and analysis processes with their theoretical framework and situational goals” (Tracy, 2010, p. 848). As CDA is not only a methodology, but a theory-informed analysis, coherence,
especially between theoretical constructs, research objectives, and research processes, is also significant quality of CDA studies. Cheek, for instance, states that a “key feature that needs to be foregrounded [in CDA] (...) is the congruence between the theoretical constructs underpinning the approach taken to discourse analysis and the analysis conducted” (Cheek, 2004, p. 1147). This has been achieved in this study and is reflected in the structure of this thesis. The first two chapters positioned this study’s broader objective within a need for critical understanding of risk discourses and occupation. The next two chapters have linked the research objectives to particular theories and illustrated why these are beneficial to employ. This method chapter has illustrated how research field, data collection and analysis were embedded in the underlying theoretical and methodological framework. The following two findings chapter presents a particular critical reading which accomplishes what the study espoused to be about. The discussion chapter takes the findings up, situates, and meaningfully connects them with regard to the reviewed literature and theoretical framework.

4.5.2 Systematic and careful research conduct

The systematic and careful conduct of research can be seen as related to the notion of rigor. According to Tracy (2010), a study is marked by ‘rich rigor’ when it “uses sufficient, abundant, appropriate, and complex: theoretical constructs, data and time in the field, sample(s), context(s), data collection and analysis processes”(Tracy, 2010, p. 841). One of the most important criteria for rigor with regard to CDA study is its theoretical grounding, which informs a systematic and explicit analysis (Cheek, 2004; Van Dijk, 1993, 1997; Wodak & Meyer, 2009a)). As Cheek states, in CDA “it is imperative that researchers articulate clearly the parameters of their approach to discourse analysis” (Cheek, 2004, p. 1146). In preceding chapters, I have articulated the theoretical understandings informing this study. Rigor, as Tracy (2010) states, can also be “judged by the care and practice of data collection and analysis processes” (p. 841). This study’s methods chapter provides detailed description of how data collection and analysis occurred. Systematic and careful research conduct also relates to the provision of description’; that is, detailed, in-depth illustration and complex data description that support the plausibility and persuasiveness of the offered interpretative analysis. Thick
description means to ‘show rather than tell’, allowing the reader to come to his or her own conclusion and interpretation of texts, as well as to understand how the researcher came to hers. In this study, I have strived for ‘thick description’ by integrating a variety of original texts sequences and visual examples of the analyzed information brochures. I have also strived for an in-depth, multilayered presentation to illustrate the complexity of meanings created in the analyzed text.

4.5.3 Convincing and relevant interpretation

As described by Ballinger (2006), the consideration if research is convincing and relevant resides in the reader and involves a recognition that the “researcher has something significant to contribute to knowledge within the domain under investigation” (p.241). Ballinger argues that a strategy to achieve this quality criterion is to continuously discuss one’s research with others, such as by presenting it at conferences, discussing it with the doctoral supervisor or with peers. During this study, I have used this strategy many times, I presented this research at conferences, discussed and reflected upon my emerging interpretations in ongoing communications with my supervisor and used chances to exchange my ideas and interpretations with ‘naïve readers’ in my everyday life. Besides the discussions with my doctoral supervisor, the later, that is, the discussions ‘outside’ academia were especially helpful. For instance, as facts and ideas about aging drivers seem to be so taken for granted and unquestioned for many people that I encountered, discussions about my work with neighbours or older adults in which I was the one, who was questioned, facilitated me to present my interpretations and research in a relevant and convincing way that offered new ways of understanding the discourse. With regard to CDA, Van Dijk (1997) argues that CDA research needs to goes beyond merely commenting on texts. Rather, by offering a new reading, framed from a particular, explicit perspective, a good study provides understanding into the structures, strategies, and properties of discourses:

analysis of discourse is a scholarly analysis only when it is based on more or less explicit concepts, methods or theories. Merely making ‘common-sense’ comments on a piece of text or talk will seldom suffice in such a case. Indeed, the whole point should be to provide insights into structures, strategies or other properties of discourse that could not readily be given by naïve recipients (Van Dijk, 1997, p. 5).
In my opinion, the presented study provides such insights. For instance, the next findings chapters provide in-depth and detailed understandings of the discursive structures used in the analyzed body of texts and the effects they create. As well, this study contributes theoretically and conceptually to the development of knowledge within occupational science, such as by offering understanding of how risk is taken up to govern a specific occupation (‘driving’) and to shape a specific occupational subjectivity (‘the aging driver’) within a particular body of texts. It also shades light on how discourses contribute to the construction of an individual’s possibilities to engage in occupation and of subsequent inequalities, such as, when occupation is constructed as an individual phenomenon and responsibility, and not as socially mediated within social, cultural, historic, economic, and political contexts and conditions.

4.5.4 Accounting for role of researchers

As a forth quality criterion, Ballinger also stresses the need to account for the role of the researcher in way that fits with the positioning and methodology of a particular study, noting that this is often done through reflexivity. Engaging in self-reflexivity and transparency are key practices to address this consideration. Both, reflexivity and transparency are of great importance in CDA methodologies (Cheek, 2004; Parker & Burman, 1993; Van Dijk, 1997; Wodak & Meyer, 2009a) as were in this study. Because a CDA study gives “great power to the analyst to impose meanings on another’s text” (Cheek, 2004, p. 1146) and takes a position, carrying out a CDA study requires researchers to make their specific stance, the aims of their work, and the theories which inform their study explicit and transparent (Ainsworth, 2001; Jäger & Maier, 2009; Van Dijk, 1993; Wodak & Meyer, 2009a). Reflective and transparent researchers provide their audience with information about themselves and their perspectives, but also reflect on their own subjectivities (Morrow, 2005).

In this study, I addressed reflexivity and transparency in many ways. For instance, in the introductory chapter, I have provided a self-reflective statement, informing the reader of this study about myself and my motives to engage in this study. In the following chapters, I have positioned myself further by being explicit about the theoretical and methodological assumptions that frame this study. I have also been transparent about key
methodological and analytical challenges within this methods chapter. Additionally, I used some specific strategies to enhance reflexivity, such as engaging in reflective note taking during all stages of the research process. I also engaged in dialogues with my doctoral supervisor, my thesis advisory committee and others for self-reflection, as drawing upon ‘self-dialogue’ (such as by engaging in reflective writing) is ultimately limited. For instance, at the very beginning of the data analysis, I felt sometimes compelled to ‘prove’ texts ‘wrong’ by carving out inconsistencies and illogicalities. Dialoguing with committee members helped me to realize that I had become drawn into the logic of the texts, endeavoring to counter ‘truth’ with another ‘truth’, struck by the authoritative ways texts provided information. Such dialogue strengthened self-reflection of my reactions and responses to the texts which could then be beneficially drawn upon in further analysis processes.

A second strategy that I used to enhance reflexivity was to actively expose myself to perspectives and positions that were contrary and different to mine. This strategy, besides deepening my contextual understanding, helped to ‘un-settle’ myself in order to become aware of assumptions that I take for granted, motives that drive my work, or where I locate myself. For instance, during the study I participated in a two-day workshop, called the ‘The Risky Driver’ and hosted by the Ontario Injury Prevention Resource Centre (OIPC)\textsuperscript{21}. This workshop, in which professionals from various backgrounds (such as health practitioners, government workers, police officers, researchers, etc.) discussed the issue of “Risky Driving prevention and programming”\textsuperscript{(OIPRC, 2011)}, enhanced my awareness of how knowledges are created and negotiated and the essential role language holds to signal and produce expertise, in-and outsider status and power relations. For instance, during a discussion in a group session, I used the word ‘accident’ and was immediately interrupted by three other group members, correcting my use of the supposedly wrong word ‘accident’ to the ‘right’ one, that is, ‘preventable injuries’. Feeling outed as a newcomer to this group and as someone who had obviously used a

\textsuperscript{21} 2nd Annual OIPRC Injury Prevention Forum: Risky Driving Prevention, March 8-9, 2011, Toronto (see OIPRC, 2011)
banned word for a group’s key concept, I was supportively informed that “We are not allowed to use this word anymore”. Reflecting upon this statement later in my research journal (e.g., “Who is ‘we’? How is professional language governed? What differences does reframing all accidents as preventable makes and for whom?”), Reflective Notes March 8, 2011) lead me to find literature that furthered my understanding of this study’s discursive contexts (e.g., "BMJ bans 'accidents': Accidents are not unpredictable", Davis & Pless, 2001). Reflecting on my personal feelings in the described situation (e.g., “Why and how did I felt shut down like a child”, outed as inexperienced, and positioned as a not-knower? Why did I just adopt the dominant language in this situation?) made me, once again, aware of the power effects that language holds in producing knowledge, objects and subject positions and how needed critical perspectives on risk are.
Chapter 5

5 Findings 1: Rhetorical structure and main discursive techniques

The overall aim of this CDA was to understand how discourses about risk are taken up to govern a specific occupation, that is driving, and how discourses about risk operate in the construction of the related subjectivity, that is, the aging driver. This first findings chapter presents my analysis of the discursive techniques employed in the texts, while the second findings chapter presents an analysis of the ideal aging driver subjectivity that is constructed as an effect of these techniques.

In critically reading the texts, it became clear that the analyzed texts shared many similarities. The more texts I read, the more I felt that the analyzed information brochures for aging drivers were repeatedly telling the same ‘story’, using similar ways of storytelling. That is, the texts in the sample seemed to follow a shared rhetorical structure, drew upon similar discursive techniques and reproduced the same effects and risk rationale. This chapter describes the overall organization of the texts, the associated discursive techniques, and the constructed rhetorical structure and rationale.

In presenting these findings, I integrate direct quotations and visuals from the analyzed texts in my writing. Capital letters (e.g., A, B, C) indicate the text source, each text’s full reference is provided in Appendix D. Italics within a quotation indicate an emphasis that I added to draw attention to a particular part of the quotation, such as particular word choices or use of personal pronouns (e.g., “80 percent of people in their 70s suffer from arthritis, a crippling inflammation of the joints”, K, p.6). Brackets within a quotation indicate something that I added [my own words]. When special fonts or formatting were used within a quotation, for example, bolded or capitalized words, these were maintained.

5.1 Rhetorical organization

The analyzed texts combined three types of text sequences, which were repeatedly drawn upon in the texts’ whole-text organization:
1. a *facts* sequence, which established driving in later life and the aging body, as well as their inter-relationships as problematic by drawing upon statistical and biomedical ‘facts’,

2. an *evaluation* sequence, which called upon readers to evaluate their (or their significant others’) risk position by using some sort of self-reflective ‘tool’ or ‘assessment’, and

3. an *action* sequence, which called upon readers to take action and minimize the constructed risks by applying the gained fact and self knowledges to their bodies, their everyday lives, and their driving.

These three different types of text sequences were frequently indicated by section or chapter titles that aligned with the sequences’ function in the overall text. Titles establish ‘macro-propositions’; they frame, express and point to the (intended) main message of the subsequent text (Milani, 2009; Van Dijk, 2003; Wodak, 2000). For instance, fact text sequences in the brochures had titles that indicated the importance of learning and knowing facts and ‘truths’ about driving in later life, such as “Quick Facts and Statistics” (M, p.1), “EYE-OPENING FACTS” (X, p.8), “The Effects of Getting Older” (E, p.2), “Driving and other effects of aging” (S, p.1), or “How age Affects Driving” (K, p.4). In contrast, text sequences which functioned to call upon readers to evaluate themselves (or others) had section titles that implicitly or explicitly called upon subjects to check, assess, and examine themselves – based on provided facts. Subjects were encouraged to evaluate whether their (or their significant others’) driving could still be considered ‘safe’ - or whether they and their driving creates a risk that they needed to become aware of and ‘warned’ about. Thus, evaluation text sequences were marked out by titles such as “Where do you stand?” (N, p.1), “Warning signs of unsafe driving” (G, p.3), “Safe Driving Checklist” (Q, p.1), “Assessing an Older Driver’s Skills” (K, p.8), or “Examine the Situation” (B, p.8). Finally, action text sequences often used titles that suggested adopting particular tips, strategies, and practices. Taking up such practices was framed as being able to ‘reduce’ one’s risk, ‘to improve’ and ‘maintain’ one’s driving as ‘safe’, and ensure that one would maintain control over one’s mobility in the future. Action text sequences, for instance were entitled “SAFE DRIVING TIPS” (X, p.4), “Safe driving strategies” (G, p.4), “Good Practices to Maintain Driving Fitness” (E, p.8), “Reduce your

5.2 Main discursive techniques: Knowledge assemblages

The three different types of text sequences (i.e., facts, evaluation, and action) identified were also associated with distinct discursive techniques. For instance, fact text sequences generally employed few questions, as their purpose within the overall text was to provide unquestionable knowledge, or in other words, facts. If fact sequences did employ questions, these were often rhetorical questions that reinforced learning (“Did you know that...?”). In contrast, evaluation text sequences regularly employed self-reflective questions (“Do you...?”,” Have you been...”), Action sequences frequently employed directive questions that established particular actions or ways of acting as ‘right’ or ‘correct’ (“What can you do?”,” How do you...?”). Thus, the three identified types of text sequences (facts, evaluation, action), not only represented ‘clusters’ of particular content and meaning within the overall text, they were furthermore found to each draw upon a very specific set of discursive techniques to produce this meaning.

These facts, evaluation, and action text sequences can also be understood as representing specific knowledge assemblages which established a particular type of knowledge by using a specific discursive ‘assemblage’ to do so. In this thesis, I use the term ‘knowledge assemblage’ for a distinctive grouping or set-up of discursive techniques, functioning to invoke, convey, and reproduce a particular type of knowledge, specifically, fact knowledge, self knowledge, and action knowledge.

As I will show in this chapter, the texts construct aging subjects as being in need of three types of knowledge. First, aging drivers are constructed as needing fact knowledge in order to understand and become aware of the ‘real’ risks of engaging in particular behaviours, practices, and occupations. Second, they are constructed as needing to have self knowledge in order to identify and become conscious about their individual risks and risk position, as well as which behaviours, practices, and occupations require to be acted
<table>
<thead>
<tr>
<th><strong>Knowledge Assemblage</strong></th>
<th><strong>Function within overall text</strong></th>
<th><strong>Key discursive techniques employed</strong></th>
<th><strong>Common type of questions employed</strong></th>
<th><strong>Distinct language and layout features employed</strong></th>
<th><strong>Form of and relation to knowledge</strong></th>
</tr>
</thead>
</table>
| Fact                    | - Becoming aware of problem and related risks | - Statistics, numbers and measurement  
- Correcting subjective knowledges  
- Explaining ‘how things work’  
- Generating deviance through comparison | - Rhetorical questions highlighting surprise and reinforcing learning  
(e.g. “Did you know that...?”) | - Objective, neutral and general language  
- Numbers and expert terminology  
- Few personal pronouns, mainly to normalize (“We all age”, “as we get older”) | - Fact knowledge  
- Learn about, understand, and take up risk knowledge as facts and true |
| Evaluation              | - Positioning the self as potentially ‘at-risk’ and ‘risky’ | - Self-reflective questions  
- Lists of warning signs  
- Self-assessments | - Interrogative questions, calling to examine self and identify problems  
(e.g. “Do you...?”, “Have you been...?”) | - Personal pronouns, questioning subjects directly and inviting identification (“Are you...?”  
“Am I experiencing...?”)  
- Checkboxes, rating scales | - Self-knowledge  
- Assess, check, and examine personal risk by applying facts to self, gain self-knowledge about risk position |
| Action                  | - Taking action to address problem and decrease risk | - Imperative mood and personalized language  
- How-to formats, tips and strategies  
- Writing prompts and tasks  
- Providing resources | - Directive questions, guiding and setting up action  
(e.g. “What can you do to...?”, “How can you...?”) | - Personal and possessive pronouns, shaping responsibility for action  
(“you can...”, “your health”, “your mobility”)  
- Imperative mood, requesting action (“Make a plan”, “Change driving”)  
- Empty lines, images of pencils, contact addresses | - Action knowledge  
- Reduce personal risks based on gained fact and self-knowledge, take up ideal actions |
upon; and finally, they need to have action knowledge in order to know which actions can be taken to minimize the identified and individual risks of which they have now become aware. In other words, aging drivers need to know why they are at-risk (fact knowledge), how much they are at risk and which areas of their lives require modification (self knowledge), and what actions to take to minimize the risks they have learned about and identified in their own lives (action knowledge). The table *Overview of identified knowledge assemblages* (Table 2, p.117) provides a visual representation of each identified knowledge assemblage. This table illustrates the specific function of each assemblage within the overall text, as well as the key discursive techniques, distinct language and layout features it utilizes. The three knowledge assemblages represented in Table 2 are explicated in more detail in subsequent sections of this chapter.

Common switches between different knowledge assemblages within a brochure were usually signified by a new paragraph. That is, text sections drawing upon a particular assemblage of discursive techniques to achieve a particular purpose usually encompassed at least a paragraph. This finding makes sense, as a paragraph in written texts usually marks a discursive unit that carries out a specific point, idea or function (Lunsford & Connors, 1989).

Although texts varied distinctively in their length and individual composition, almost all texts employed all three knowledge assemblages (see Table 2: Presence of knowledge assemblages in texts). The eight texts, which did not employ all three assemblages, were provided as work sheets and emphasized one of the three assemblages, such as a separate evaluation ‘tool’ to review one’s driving (e.g., the “Safe driving checklist”, Q) or a ‘worksheet’ to guide further action (e.g., the “Getting There Worksheet”, J). However, while one agent (BCAA Traffic Safety Foundation) provided six texts that mostly employed only one knowledge assemblage, these texts (M, O, P, Q, R, S) were implicitly and explicitly linked to each other and can be thought of as part of a ‘series’. For instance, the “Planning Ahead Worksheet” began by stating “If you’ve done the *Think*
About Your Driving Review, tried the Practice Knowledge Test, and used the Safe Driving Checklist, it’s now time to make a plan that can help you adapt to the changes you are facing” (R, p.1). Thus, texts, which only employed one assemblage, still fit the shared fact-evaluation-action organization and logic, identified in the overall sample. The following sections describe all three knowledge assemblages identified, that is, the fact, evaluation, and action knowledge assemblages. The section describes each assemblage with regard to the main discursive techniques they draw upon.

**Table 3: Presence of knowledge assemblages in texts**

<table>
<thead>
<tr>
<th>Text</th>
<th>Fact</th>
<th>Evaluation</th>
<th>Action</th>
<th>Type of text</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Booklet</td>
</tr>
<tr>
<td>B</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Booklet</td>
</tr>
<tr>
<td>C</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Leaflet</td>
</tr>
<tr>
<td>D</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Booklet</td>
</tr>
<tr>
<td>E</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Booklet</td>
</tr>
<tr>
<td>F</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Leaflet</td>
</tr>
<tr>
<td>G</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Pamphlet</td>
</tr>
<tr>
<td>H</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Pamphlet</td>
</tr>
<tr>
<td>I</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Worksheet</td>
</tr>
<tr>
<td>J</td>
<td>x</td>
<td></td>
<td></td>
<td>Worksheet</td>
</tr>
<tr>
<td>K</td>
<td>x</td>
<td>x(^1)</td>
<td>x</td>
<td>Booklet</td>
</tr>
<tr>
<td>L</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Booklet</td>
</tr>
<tr>
<td>M</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Information sheet</td>
</tr>
<tr>
<td>N</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Information sheet</td>
</tr>
<tr>
<td>O</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Self-assessment sheet</td>
</tr>
<tr>
<td>P</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Information sheet</td>
</tr>
<tr>
<td>Q</td>
<td>x</td>
<td></td>
<td></td>
<td>Self-assessment sheet</td>
</tr>
<tr>
<td>R</td>
<td>x</td>
<td></td>
<td></td>
<td>Worksheet</td>
</tr>
<tr>
<td>S</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Information sheet</td>
</tr>
<tr>
<td>T</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Pamphlet</td>
</tr>
<tr>
<td>U</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Booklet</td>
</tr>
<tr>
<td>V</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Booklet</td>
</tr>
<tr>
<td>W</td>
<td>x</td>
<td></td>
<td></td>
<td>Pamphlet for a seminar</td>
</tr>
<tr>
<td>X</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Booklet</td>
</tr>
</tbody>
</table>

\(^1\) of other
5.2.1 The fact knowledge assemblage: ‘Know the facts’

The fact knowledge assemblage is a distinct grouping of discursive techniques which is employed within the overall texts to establish driving in later life as a ‘problem’, rooted in a particular conceptualization of the aging body as problematic for driving. By employing specific discursive techniques, such as drawing upon the authority of epidemiological research and medical science, this knowledge assemblage establishes facts. These facts locate the overall problem and subsequent solution frames in aging bodies and thus, position aging drivers as ‘at-risk’ and potentially ‘risky’ subjects.

The main purpose of the fact assemblage within the overall texts is to ‘inform’. Fact assemblage techniques are employed in ways that ‘explain’ how things ‘really’ are. For instance, the fact assemblage establishes age-related changes in body function and driving ability as measurable, calculable and predictable ‘facts’ which might not always align with a subject’s experience of his or her body and driving ability. The assemblage informs aging subjects about complex biomedical and decision-making processes ‘behind’ subjective aging and driving experience. Such processes and related facts are constructed as important to know to ensure one’s safety (“Reduce your risk [title]… Know the facts”, S, p.2).

Therefore, the fact assemblage calls upon aging subjects to ‘check out’ particular facts (“Check out these facts”, K, p.6), to ‘learn’ what age-related changes they need to anticipate (“Drivers should learn to recognize individual changes”, A, p.1), and to ‘think’ about their aging process by adopting a functional and biomedical gaze (“This part of the Booklet helps you to think about some of the most important physical changes…that can affect driving ability as we get older.”, E, p.3). Understanding these ‘eye-opening’ and privileged facts is framed as crucial in order to become conscious and aware about the problem and to ensure driving safety in later life (“Awareness about the changes... is key to a long, safe driving career” P, p.1, “Here are some eye-opening facts” X, p.8).

Accordingly, gaining ‘fact’ knowledge is framed as the ‘first step’ in transforming subjects into ‘activated drivers’ who have the power to ensure their own and others’ safety on the road (“Knowing more about how aging affects driving is the first step in keeping you on the road longer” E, p.2).
I identified four main discursive techniques that texts frequently drew upon to establish facts. Not all texts employed all these discursive techniques in the fact knowledge assemblage. Some texts, for instance, employed demographic knowledges, while others only employed biomedical knowledges. Still, all identified fact assemblages employed at least one of the four techniques of presenting authoritative facts in order to build up and validate the overall argument. These four discursive techniques used to establish facts are: (i.) statistics, numbers and measurement; (ii.) correcting and extending subjective knowledges; (iii.) explaining ‘how things work’; and (iv.) generating deviance and differences through comparison. The following section illustrates how each of these techniques was employed to generate truth effects and to construct the ‘aging driver problem’ in particular ways.

**Calculating and identifying the parameter of the problem: Statistics, numbers and measurement**

Typically, text sequences identified as drawing upon fact knowledge assemblages involved some sort of numerical representations. This included demographic statistics of the growing proportion of seniors in the Canadian population (e.g., “Today, they represent over 13% of our total population. By 2026 it is projected that seniors will account for over 22% of the total population”, P, p.1), medical statistics of problems related to aging that could compromise driving ability (e.g., “By age 75, almost half of us will have early cataracts, and about one in four will have advanced cataract disease” E, p.3), percentages of body function decreasing or needed for driving (e.g., “90% of the decision we make while driving are based on information gathered through our eyes”, X, p.8), or other units of measurement, such as reaction time (e.g., “Drivers over 40 take three seconds or more, with more time needed as they age”, K, p.6.), which quantified the aging body as less functional compared to an implied ‘normal’ body (e.g., “At age 55, it takes 8 times longer to recover from glare than at age 16”, X, p.10).

As a discursive technique these numerical representations imply that such facts are objectively and precisely calculated, can be measured, and are able to predict the future. For instance, some texts use statistical representations to predict the fact of a troublesome and worrisome future. This fact is typically constituted by drawing upon and relating
population and accident statistics in ways that raise alarm about a safe future that is obviously ‘at-risk’ for individuals, as well as for society as a whole. This discursive technique can be illustrated by the following example, illustrated in Figure 5 (M, p.1).

The text draws upon various numerical representations to provide facts that make up the problem of driving in later life. Numerical representations are used under three headings: “Seniors in Canada” (a growing demographic group), “Seniors as Drivers” (already a considerable proportion of all licensed drivers), and “Seniors in Crashes” (involved in more fatal crashes than most other age groups), they construct a problem that depicts a dangerous future if no action is taken:

![Mature Drivers - Facts and Stats](image)

**Figure 4:** Fact knowledge assemblage, example use of statistics (snapshot text M, p.1)

Fact assemblages suggest that the constructed facts are reliable, objective, and precisely derived. The above example achieves assumed accuracy by referring to information sources, which are viewed as trustworthy (e.g., “Statistics Canada”, “Transportation Canada”). The use of the word ‘quick’ in the text’s eye-catching title (i.e., “Quick Facts and Statistics”) suggests that the problem might be easily explained and promptly understood, once one gets to know the facts. Accessibility of the provided information is also underlined by abbreviating the scientific term ‘statistics’ to more informal ‘stats’
(i.e., “Facts and Stats”). Such techniques suggest that understanding a problem or problematic development by the means of statistics is not exclusive to experts, but can also be done by ‘lay’ persons and within everyday contexts.

Fact claims produced through numerical representations implicitly address and call upon readers as rational subjects who are able to understand the parameters of the problem as based on calculation and derived by scientific methods. By simply doing ‘the math’- implicitly framed as objective, rational, and informative - readers, as one text frames it, “have good reason to be concerned” (K, p.1) for their future safety:

A look at the statistics shows that you have good reason to be concerned: Older drivers become more crash-prone with age, even though they drive less. The crash rate per mile driven rises steadily for drivers 65 and older, and those drivers are involved in more crashes per mile driven than any other age group except teenagers. And because older drivers are more fragile, their fatality rates are 17 times higher than those of 25- to 64-year-olds. (K, p.2)

Such alarmist demography (Robertson, 1997), establishes the problem, as well as its urgent nature, through numerical facts:

- There are roughly 2.7 million drivers over the age of 65 on Canadian roads today. By 2040 there will be almost double the number of older drivers in Canada. (G, p.1)
- In 1995 there were 16.5 million licensed drivers over 70 years old – a 47 percent increase from 1985. By the year 2020, the United States will hold 54 million Americans over 65 years of age – and many of them will be driving. (K, p.2)
- With the Baby Boomer population aging, Statistics Canada predicts by 2026, nearly 5 million Canadians – more than 20% of all drivers, will be 65 or older. (X, p.1)
- The number of older drivers is growing. The U.S. Census Bureau has determined that by 2030, one in five Americans will be age 65 or older, which means there will be more than 65 million older drivers on our roads. (V, p. 2)

By employing seemingly objective statistical facts, fact knowledge assemblages set the parameters of the constructed problem, such as the likelihood that the problem will take place, as well as it’s severity and magnitude. Together, these objective facts construct urgency to take action.
Setting parameters that frame and objectify the problem is also achieved by drawing upon medical statistics and quantifications, pertaining to medical conditions and bodily decline which are assumed to accompany aging. Medical statistics within the fact assemblage shift the perspective from the population body as ‘risky’ aging towards the individual aging body as risky. That is, fact assemblages employ medical statistics to establish the fact that individual aging bodies are ultimately declining bodies and thus, at-risk of becoming a risk to driving safety. The following text sequences illustrate how medical statistics are drawn upon to construct the likelihood that the individual reader will become part of the problem:

By age 75, almost half of us will have early cataracts, and about one in four will have advanced cataract disease. Cataracts are like having a waterfall in front of your eyes, and can seriously affect your ability to drive. (E, p.3)

Vision provides as much as 85 percent of the information we need to make safe decisions behind the wheel. Yet our eyes begin to deteriorate after age 40 and get progressively worse. How much worse? Check out these facts (K, p.6).

This is also achieved by using ‘pronouns of solidarity’ (Luke, 2000) which address readers as part of a collective from which they cannot exempt themselves (“half of us”, “information we need”, “our eyes”).

Furthermore, the use of medical statistics also constructs the problem of driving in later life as one that originates and is located within the individual aging body, although it is constructed as having an impact on the whole population. Within fact assemblages, numerical representations drawing upon medical knowledges portray a particular loss of function as predictable, but also as objectively measurable and thus, as ‘truly’ existing. This truth effect produced through medical and scientific authority is important, because the constructed age-related loss of body function endangering driving safety is also constructed as not fully accessible through subjective experience (“Sometime changes… occur so gradually it is easy to ‘overlook’ the affects of aging”, X, p.8). This is related to the discursive technique discussed below which illustrates how fact knowledge assemblages establish expert knowledges as superior to ‘lay’ knowledges and scientific research as an objective method of measurement.
Establishing ‘research’ and science as authority: Correcting and extending subjective knowledges

A second discursive technique that was frequently employed to establish the authority of the presented facts involved referring to facts as ‘revealed’ through research and scientific measurement. This discursive technique is rooted in the assumption that research has authority to ‘tell’ truth. Within the fact knowledge assemblage, ‘research’ is constructed as a powerful, unquestionable, and interest-free authority, which has human properties. As illustrated in the next text sequences, research ‘says’, ‘shows’, and ‘reveals’ things in an unmediated fashion, and ‘concludes’ facts that are significant to know:

Research shows that crash rates begin to increase as drivers reach their late 60’s or early 70’s, and increase more rapidly after about age 75. (U, p.1)

Although statistics linking legal drug use to crash rates remain sketchy, several studies have concluded that diazepam (Valium) and other drugs commonly prescribed (…) can double the likelihood of a traffic collision. (…) Alcohol is far from harmless in this regard. Research shows that as people age, their tolerance for alcohol steadily declines and its effects linger longer. (K, p.7)

Implicitly and explicitly referred to as an authority speaking one truth (e.g., ‘the’ facts’) with one voice (“What the research says”, I, p.1), research is constructed as able to ‘tell’ and ‘show’ the ‘true’ dimensions and origins of the aging driver problem. The following snapshot from a text provides an example of how research speaks for itself:

**What the research says**

Seniors are a rapidly-growing segment of Canada’s population.
- Today, they represent over 13% of our total population.
- By 2026, it is projected that seniors will account for over 22% of the total population.
- Today, there are almost 2.9 million licensed drivers in Canada who are 65 years of age or older.

Research shows that seniors:
- Are more likely than other drivers (except for very young drivers) to be involved in a crash.
- Are overrepresented in serious injury crashes.
- Are more likely than younger adults to be seriously injured or die in a crash.
- Often take longer to recover from their injuries following a crash.

**Figure 5:** Fact knowledge assemblage, example use of research as authority (snapshot text I, p.1)
Note also, how in the example above, certain layout features, such as showcasing ‘research’ in the title and representing facts in a bulleted list, suggest importance and firmness of the established facts. The texts imply that facts supplied by the authority of research do not require further justification or explanation; they, as illustrated in the above example, just ‘are’.

Constructed as authoritative, research, by providing the ‘real’ facts, validates (“most older drivers understand this instinctively”) or rejects (“not a good predictor”) subjective impressions and experiences. This is illustrated in the following examples:

- *Research shows* that 90 percent of older drivers who fail reaction tests at high speeds perform satisfactorily at speeds 10 mph slower. Most older drivers understand this instinctively. *(K, p.6)*
- *Research shows* that age alone is *not a good predictor* of driving safety or ability. *(P, p.1)*
- *Studies reveal* that older drivers give the least credibility to family members who criticize their driving. *(K, p.20)*

Constructed as an indisputable, knowledge-producing authority, research provides explanations and raises risk awareness. That is, ‘research’, as represented within the analyzed texts, makes pre-existing and problematic facts visible that one did not know before or was not aware of. For instance, the next example sequence illustrates, how ‘observational studies’ revealed facts about unsafe driving practices that aging drivers themselves were not aware of:

- But why don’t you do these things [checking rearview and side mirrors] all the time? In some cases, you might simply forget. *In observational studies*, older drivers report being unaware of having failed to look to the rear before changing lanes or backing up. Many of our driving habits are exactly that – habits! And we stop being aware of our actions especially if we have driven accident free for a long time. *(D, p.7)*

Again, this directly addresses the reader (“you”) by posing a rhetorical question that could have been posed by the reader him or herself (‘But why I am not regularly doing these things I know I should?’). Within the example text, research results provide an explanation of and an answer to a problem; they raise awareness of risky behavior and suggest a conscious change of one’s ‘habits’ in order to reduce identified risks.
Another related discursive technique that texts drew upon to claim and establish ‘facts’ about the problem as powerful and authoritative, is a ‘myth versus facts’ opposition that constructed expert knowledge as superior to subjective and so-called lay knowledges. This discursive technique commonly presented two knowledge statements in opposition to each other, before deconstructing and disqualifying the first statement as a ‘myth’ in favour of presenting the later statement as the fact. For instance, in the following text sequence, the statement “there is nothing older drivers can do to improve their driving” (P, p.1) is disqualified as a myth: that is, as an implicit popular belief that literally stands on no grounds of reason. Degradation is also achieved by giving the myth statement, in contrast to the fact statement, no further space of justification. By employing the same sentence structure in the following sentence, the myth statement is implicitly replaced and ‘corrected’ by the contrasting fact statement: “there are [actually] many things older drivers can do to improve their driving”. By employing this discursive myth/fact technique, the later statement becomes produced and privileged as the ‘real’ truth, generated and justified by the authority of research, and constructed as providing ‘better’ predictors, based on accurate means of reasoning and calculation. The quotation reads:

**MYTH**– There is nothing older drivers can do to improve their driving skills and abilities.

**FACT**– There are many things older drivers can do to improve their driving skills and abilities (...) Research shows that age alone is not a good predictor of driving safety or ability. Nevertheless, some of the physical and mental changes that occur as we age may increase our risk on the road. (P, p.1)

Another text sequence (D, p.7) illustrates the use of a similar discursive technique. While this text constructs lay knowledges about the ‘true’ safety of seatbelts as derived from potentially one-sided, biased, and exaggerated story telling (e.g., “The negative tales you may have heard”), the privileged, scientific-based knowledge is implicitly represented as derived from neutral, rational, and calculative measurement and investigation, correcting the significance of such events (i.e., “either myths or extraordinarily rare events”). Note as well, the language switch from everyday storytelling language in the ‘myth’ part (i.e., “being trapped in a car that catches fire”) to a technical-statistical language in the ‘truth’ part (“reduce injuries and fatalities”):
The negative *tales you may have heard* about seatbelts, such as being trapped in a car that catches fire, *are either myths or extraordinarily rare events*. Properly fastened seatbelts *are unquestionably* the best way to *reduce injuries and fatalities* due to a crash (...)

- Accept the *clearly demonstrated value* of seatbelts in saving lives and reducing injuries. (...)(D, pp.7-8, bullet point in original)

The order of representation within the myth-vs.-facts technique also reinforces the idea of knowledge gain and progression by ‘learning’ and ‘understanding’ the correct facts. By first providing a popular belief that might be familiar to the reader as in the example above (e.g., “tales you may have heard”) and then disqualifying it (e.g., “myths”), and subsequently replacing it with ‘unquestionably’ superior scientific knowledges (“unquestionably the best way”, “clearly demonstrated”) the reader is incited to progress from acting on myths to acting on facts, provided by science and expert knowledges. Readers are asked to consider these knowledges as a new basis for their actions. The myth-vs.-facts technique reinforces the idea that ideal aging subjects, while surrounded by common knowledges, do not act based on myths, popular belief, or subjective ‘misconceptions’, but on scientific knowledges constituted as objective facts. This is illustrated in the following text sequences, in which “misconceptions about the *actual risk*” (D, p.1) are not only framed as a problem of uninformed aging drivers, but also as a problem that is due to a specific risk position (“misconceptions grow with age”, D, p.1), leading one to subjective and false perceptions and estimates of one’s ‘true’ driving performance. The text sequences imply that ‘knowing’ and ‘accepting’ the facts enables responsible action that reduces risk:

Of all age groups, drivers over 50 have the most *misconceptions* about the *actual risk* of having a collision. These *misconceptions grow with age*. Furthermore, older drivers *underestimate* how much their own actions and problems *contribute to accident risk*. (D, p.17)

*Contrary to popular belief,* very few people who have undergone a medical assessment have had their licence withdrawn. However, some may be subject to restrictions, including no nighttime driving or the obligation to wear glasses while driving (C, p.2)

Thus, the texts suggest that becoming aware of ‘myths’ and ‘misconceptions’ through understanding and accepting the ‘clearly demonstrated value’ of fact knowledges empowers responsible and rational action that can ensure safety.
In summary, the fact knowledge assemblages employ techniques such as the myth vs. facts and research as authority as discursive techniques which establish ‘facts’ about driving and aging. Experts and research associated with the fields of science and biomedicine are constructed as having the knowledge and authority to explain and determine driving function. This will be illustrated further in the next section, which describes the third main discursive technique used to establish the problem by drawing upon objective facts.

Establishing ‘lenses’ to view and frame the problem of driving in later life: Explaining ‘how things work’

The third main discursive technique, which is employed in ways that establish presented facts as powerful and true, is the frequent use of technico-scientific and biomedical explanatory models. While technico-scientific explanatory models are frequently employed in ways that establish facts about driving (i.e., driving as a functional process, requiring information processing, decision making and coordination of complex body function), biomedical models are employed in ways that establish facts about aging (i.e., aging as a bodily process, resulting in change and decline of body function). This happens in similar ways, that is, in establishing facts by drawing upon authoritative expert knowledges that need to be ‘explained’ to the non-expert reader. Text sections imply that there is something to be known and learned so that subjects understand why aging is a problem to driving. By fore-fronting facts explaining how and what is happening when one ages or drives, the use of these explanatory models contribute significantly to construct the taken-for-granted truth effect that it is happening. For instance, texts sections employing this specific fact assemblage technique, are entitled “How Age Affects Driving” (K, p.4), “What happens as we age?” (S, p.1), or “How might age affect safe driving?” (H, p.2), already taking for granted and reinforce that aging processes affect driving.

The explanatory models used are functional models, mainly embedded in biomedical and technico-scientific discourses and based on a realist epistemology. Such functional explanatory models are drawn upon, for instance, in establishing ‘driving’ as the outcome of a complex process and interaction of a subject’s body functions, behaviour and the
vehicle. The true complexity and objective reality that exists behind the visible outcome of the driving process is constructed as not being accessible through subjective experience. Rather, the texts imply that one can only come to know what is ‘really’ going on by referring to explanations of science and biomedicine. Such explanation is illustrated by the two text sequences below. These reproduce and implicitly draw upon a biomedical and technico-scientific model that constructs human action, such as driving, as the visible result of several functional processes within an individual (i.e., “sensing, deciding and acting”, “hand, eye, foot and ear coordination”). Readers are called to take a scientific stance and learn that their driving is ‘actually’ not as ‘easy and natural’ as it might have seemed to be, but rather a complex combination of various ‘tasks’:

Although driving might seem easy and natural, it’s actually a complex, fast paced activity. It involves sensing information about traffic, road conditions, signals, markings, and the car’s behavior, deciding what to do based on that information, and then acting, all in rapid-fire succession. A typical driver makes 20 decisions per mile, with less than half a second to act to avoid a collision. Age affects all three steps in the process: sensing, deciding, and acting. (K, p.4)

“I am healthy and have a lifetime of driving experience”, might be your initial response

But driving is a complex task. It requires excellent hand, eye, foot and ear coordination. In fact, it involves the whole body. [italics in original]

With age, health problems can arise, which may be caused by high blood pressure, heart disease or cataracts, for example. As a result, you may find driving at night, making a left turn, checking a blind spot, backing up the car, entering a highway or changing lanes increasingly difficult. (C, p.2)

A related discursive technique is the frequent use of disciplinary languages and terminology. Within the textual sample, text sequences establishing facts regularly employ biomedical and technico-scientific terminology that suggest that the presented facts are rooted in a body of expert knowledge. For instance, driving, as illustrated above, is reframed as a “complex task” (B, p.3) and “physical activity” (X, p.14), that needs to be “efficient” and “effective” (B, p.3), and relies on the ability to “perform fast-paced motor activities (K, p.6) and one’s “capacity to make decisions and process information rapidly” (D, p.15). As well, seeing well enough to be able to drive is commonly framed as composed out of several, distinct ‘visual functions’, such as “peripheral vision”, “depth perception”, or “field of vision” (K, p.6).
Frequently switching between expert and lay languages further reinforces the idea that facts - the implicit area of experts - need to be explained to lay subjects so that they will be able to learn how their driving might be effected. A typical example of the use of expert terms to establish facts concerns vision. The following two text sequences (D, X) illustrate the use and truth effect of this technique. A fact (e.g., vision declines with aging) is established by implicitly drawing upon biomedical knowledges, signified by expert terminology (e.g., “visual ability”, “depth perception”, “peripheral vision”, “capacity”, “object”, “detect”). Explaining facts by switching from professional terminology towards simpler language (“how close or how far you are”, “how fast other vehicles are coming towards us”), contributes to the idea that subjects have less knowledge about their body function than experts:

Another visual ability that declines over the years is depth perception: how close or how far you are in relation to a car or object ahead. This capacity is especially critical when trying to judge how fast other cars are coming, which contributes to the problems you may have in making left turns. (D, p.14)

With age our peripheral vision narrows causing tunnel vision, which makes it harder to detect objects located or approaching from left to right. As well, depth perception lessens affecting our ability to determine how fast other vehicles are coming towards us. (X, p.11)

Here, the use of expert terminology and biomedical and technico-scientific explanatory models implies that facts about driving, aging, and body function are best left to the authority of science. This claim marginalizes subjectively derived knowledges, such as experience. Furthermore, the privileged models (with regard to the facts they produce) are not only descriptive, but also normative models; that is they establish particular facts about standards and deviation, such as ‘normal’ driving versus age-‘affected’ driving and ‘normal’ body function versus age-related ‘loss’ of body function. This will be described in more detail in the following section, which illustrates how fact knowledge assemblages establish certain standards, which uses techniques of comparison to construct and pathologize aging drivers and aging bodies as ‘different’ from ‘normal’ drivers and ‘normal’ bodies.
Establishing standard drivers and driving standards: Generating deviance and differences through comparison

One main function of the fact assemblage is to establish driving in later life, as well as the aging body, as in decline and thus as “at risk” of becoming unsafe. The technique of comparison, by highlighting deviances to ‘normal’ driving and ‘standard’ bodies, is another frequently used discursive technique. This discursive technique compares aging drivers and their bodies with younger drivers and implicit normal bodies in order to construct facts about aging drivers as being increasingly ‘less’ functional, and thus at-risk. By drawing upon comparisons, aging drivers are positioned as ‘other’; they are negatively contrasted with ‘normal’ drivers (or the driver, they have been previously), as having constantly declining driving skills due to age-related changes in their bodies. The use of this technique is illustrated in the following text sequences, which establish differences that position aging drivers and their driving performance as deviant compared to an implicit and assumed norm:

*Compared to young people, older drivers require much more light and more time to adjust to changing light conditions. (…) Older drivers are also bothered more by glare and take longer to recover from it. (…) Older people are also more susceptible to medical conditions such as glaucoma and cataracts. (…) older drivers process information and react more slowly than younger people* (K, p.5)

40% of fatal collisions of drivers 70 and older, involving other vehicles, occurred at intersections, *compared with 23% of fatal collisions for drivers ages 35 to 54. (…) This [failure to yield] compares with 37% for 70 to 79 year olds and only 26% for those aged 35 to 54. Reasons for these intersection crashes varied by driver age. Drivers 70 to 79 made more evaluation errors than drivers of other ages (i.e., they saw the other vehicle but misjudged whether there was time to proceed). (M, p.1)

What happens as we age?

- The retina becomes less sensitive to light. More light makes it easier to see and drive and *older drivers require significantly more light than younger drivers.*

- Our ability to change our focus starts to slow down around age 40. A *driver over the age of 40 can take* at least a second *longer to refocus than a younger driver takes* (such as when looking up from the dash to the road ahead).
• We become more sensitive to glare because the lenses of our eyes thicken and the pupils become smaller. A 55 year old takes eight times longer to recover from glare than a 16 year old. (S, p.1)

Some techniques of comparison also draw upon previously described fact techniques. For instance, comparisons frequently incorporate quantification, such as statistics or time units, research, and biomedical and psychological models of how aging and driving ‘works’. Such quantification and reference to expert knowledges suggests that the established differences and deviances are objectively derived, measurable, and medically explainable.

Comparison techniques also construct aging bodies as deviant from and inferior to normal bodies by drawing upon negative attributes and qualities. Aging bodies are constructed as ‘slower’, ‘weaker’, ‘less’ efficient, and ‘more’ easily distracted - compared to an inherent reference norm which is so taken for granted that it is often not explicitly mentioned at all. This is illustrated in the next snapshot, which constructs aging drivers as slower and poorer coordinated, but does not need to mention the used reference norm to be understood:

**Figure 6:** Fact knowledge assemblage, example use of comparison (snapshot text E, p.5)

Comparisons produce aging drivers not only as less functional, but also as more ‘needy’ than their younger counterparts. By comparing aging subjects with younger subjects, the texts, as shown in the next text example, construct the fact that aging drivers need ‘more’ (here: light and time) to achieve the same functional outcome in gaining accurate and significant driving information:

The amount of light you need to drive nearly doubles every 13 years. To see clearly, a 60-year-old requires 10 times as much light as a teenager (...) The eye’s
ability to focus slows with age. A teenager takes roughly 2 seconds to focus from near to far, yet a 40-year-old glancing from the speedometer to the road ahead takes 3 or more seconds (...) Our sensitivity to glare increases as we age since our eye lenses grow thicker, our pupils shrink, and our eye muscles lose elasticity. At age 55, it takes 8 times longer to recover from glare than at age 16 (...) Colours especially red, become less bright and harder to see as we age. Some aging drivers take twice as long as younger drivers to notice brake lights. (X, pp.9-11)

The comparison technique not only compares aging drivers with younger drivers, it also contrasts aging against driving. That is, this comparison is used to position aging as ultimately incompatible with, and thus, as a risk to driving. The opposition between aging and driving establishes the fact that these two do not ‘fit’. Even though individuals are constructed as being able to maintain their own driving ‘fit’-ness for some time (“Good Practices to Maintain Driving Fitness”, E, p.8), driving is constructed as a ‘complex task’, which needs complex coordination of body parts, full control over one’s body, cognitive sharpness, and the ability to make fast decisions. Aging - in contrast - is constructed as a process of bodily decline, reduction, inflexibility, narrowing of skills, and an overall ‘slowing down’. As illustrated in the three following text sequences, this technique constructs the fact of driving and aging as ultimately incommensurate. Note how word choices attributed to driving requirements (e.g., “fast-paced”, “rapid-fire”, “complex”, “quickly”, “faster”) implicitly counter words attributed to aging processes (e.g., “more time”, “delay”, “narrower”, “more slowly”, “longer”):

Although driving might seem easy and natural, it’s actually a complex, fast-paced activity. It involves sensing information (...), deciding (...) and then acting, all in rapid-fire succession (...) Age affects all three steps (...) We also lose the ability to change focus quickly between near objects(...) The field of vision typically narrows with age (...) This narrower visual field also makes it hard to pick out a particular object in a cluttered scene -spotting a poorly placed road sign at a busy urban intersection, for example (...) older drivers require (...) more time to adjust to changing light conditions. This delay affects driving at night (...) The enormous number of big pickup trucks, vans, and sport-utility vehicles on today’s roads make night driving particularly difficult for older people (...) older drivers process information and react more slowly than younger people (K, pp.4-5).

Today, there are more drivers on the road and decisions must be made faster and in a more congested traffic environment. Experience and mature judgement are important but older drivers often process information more slowly. Once a decision has been made, the driver needs to react quickly. Testing shows that
many older drivers take longer to perform motor activities (S, p.1, text bolded in original).

These examples construct a changing driving environment (i.e., “busy urban intersection”, “enormous number of big pickup trucks”, “more drivers on the road”, “more congested traffic environment”) as a taken for granted and unquestioned fact and condition to which one’s driving has to ‘measure up’ and ‘keep pace’. Such a construction contributes to the overall construction of driving as a mainly individual skill, performed by and located in individuals and their bodily abilities – who either fit generally accepted driving standards or not.

Generally, comparison techniques point to differences in quality and have a crucial discursive effect. These techniques attend to and reinforce the idea that aging drivers might experience themselves as still able to drive, when they are in fact not able to drive ‘well’ enough. That is, these techniques construct aging drivers as lacking driving ability with regard to certain quality standards, determined and discovered by the authority of science as crucial requirements for driving - and not by one’s subjectively experienced ability to drive.

In conclusion, the fact knowledge assemblage establishes age-related changes in body function and driving ability as measurable, calculable, and predictable ‘facts’, which might not always align with a subject’s experience of his or her bodily and driving ability. By drawing upon discursive techniques such as statistics, numbers, and measurement; correcting and extending subjective knowledges; explaining ‘how things work’; and generating deviance and differences through comparison this specific knowledge assemblage constructs authoritative and exclusive facts. While the illustrated fact knowledge assemblage calls upon readers to adopt such facts in order to ‘understand’ the risks that aging poses to driving, a different knowledge assemblage calls upon readers to personally apply these facts to themselves and to their everyday driving. This second knowledge assemblage, using another distinct set of discursive techniques, is described next.
5.2.2 The evaluation knowledge assemblage: ‘Find out where you stand’

While the fact knowledge assemblage called upon readers to gain knowledge about the facts that constitute driving in later life as a problem, the evaluation knowledge assemblage encourages readers to gain knowledge about themselves – with respect to the problem and based on facts. Text sequences which drew upon the evaluation assemblage asked aging drivers to evaluate and judge themselves, their aging bodies, and their driving against given norms or standards. To achieve this, the evaluation assemblage provides related ‘tools’ that provide means to ‘check’ one’s self and driving against these norms. By using these ‘tools’, aging drivers are assumed to presumably gain important self knowledge about how they are ‘measuring up’ and thus, about their individual risk position.

Texts within this assemblage call for engagement in a process of self-reflection and self-examination in order to become aware of and adopt an understanding of oneself as being at-risk when aging ‘sets in’. Texts, for instance, called upon aging drivers to find out where they stand (e.g., “Where do you stand?”, N, p.1) and if they are at risk (“SENIORS, are you at risk?”, B, p.3), to learn how well they are doing with regard to their driving (e.g., “your answers and score give some indication of how well you are doing”, D, p.5), to check if their driving is still road-worthy and as good as it could be (e.g., “Is your driving road-worthy? Are you wondering if your driving skills, abilities and knowledge are as good as they could be?”, Q,p.1), to see if their driving has already changed (“Here are some ways to check to see if your driving habits and skills have changed”, X, p.2), and to become alert to ‘warning signs’ that can identify oneself as a risky driver (“Here are some warning signs to alert you to the fact that you may no longer be a safe driver”, E, p.22).

Unlike the fact knowledge assemblage which establishes aging as a risk to driving and aging drivers as an at-risk and risky population, the evaluation assemblage addresses readers as individuals who need to become aware of and assume their personal risk by engaging in processes of self-evaluation. In other words, the discursive techniques employed suggest a problematization of the individual self as being at risk of becoming a
risk to themselves and others. This problematization of the self through means of self-evaluation has an important function within the overall rationale of the text. Facts construct aging as an universal, yet very individual process that “varies from individual to individual” (D, p.1) as “individuals age at different rates”(X, p.1). Evaluation assemblages call upon subjects to gain knowledge about and watch ‘their’ aging process and individual ‘aging rate’. The texts suggest that only sufficient fact and self knowledge will allow subjects to be able to stay in control of their driving by knowing which action to take. Thus, the evaluation assemblage also prepares and sets up a call for individual subjects to take action. This call for personal action is emphasized and implemented through the use of a third knowledge assemblage which will be illustrated later.

By drawing upon several discursive techniques, the evaluation assemblage advocates to take a watchful stance on one’s driving and aging self. Typically, text sections that employed this assemblage incorporated or referred to specific ‘tools’ for self-reflection that appeared to be systematic and scientific. Texts, for instance, incorporated lists of self-reflective questions that tell readers to question one’s driving self (e.g., “Ask yourself these questions:”, A, p.2); checklists to ‘check’ on one’s driving against a standard (e.g., “Check the responses that most accurately describe your driving”, Q, p.1); and lists of ‘warning signs’ to watch out for in one’s or another person’s driving (e.g., “Warning signs of unsafe driving”, G, p.3). Texts sometimes incorporated complex, scientific sounding ‘tests’ and ‘assessments’, such as a “Drivers 50 Plus Self-rating form”(D, p.2) or a “Safe Driving Review” (O), by which subjects were called to ‘assess’ themselves and their driving by choosing between various answer options, marking ‘rating’ scales, and calculating ‘scores’ (e.g., “Use the rating guide to compute your score and learn where your strengths and weaknesses are”, D, p.1).

The main three discursive techniques used in the evaluation assemblage are: (i.) self-reflective questions; (ii.) lists of ‘warning signs’; and (iii.) self-assessments. Some texts drew upon all of these techniques, or combined two of them, while shorter texts, such as leaflets, mainly drew upon lists of ‘warning signs’ and self-reflective questions. However, all the texts used at least one of these techniques. Furthermore, within all texts these techniques served the same goal: they produced a call to apply fact knowledges by
evaluating and understanding one’s aging self as being at-risk to potentially become a ‘risky’ driver. Moreover, all these ‘tools’ were implicitly or explicitly framed as being able to provide important self knowledge about one’s risk position through a systematic and objective reflective process. The following section illustrates how these techniques functioned to call upon readers to become aware of and evaluate their individual risk position (or their significant other’s) in order to take responsibility and avoid becoming a ‘risky’ driver.

Becoming an observer of the self: Self-reflective questions

The self-reflective questions used in evaluation assemblages shift the broad focus on aging drivers as an at-risk group to zoom in the potential risk embodied by the aging individual. Through the use of personal pronouns (“I”, “you”), these questions call upon the reader to reflect on and question oneself as an older driver and as aging. Self-reflective questions call upon aging drivers to apply given fact knowledges to themselves and their driving by measuring themselves against this knowledge. Thus, the questions are generally worded as closed questions to be answered only with ‘Yes’ or ‘No’, or, in the case of self-assessments, rated with regard to their degree of ‘truth’ for the aging driver. The texts imply that, by asking themselves specific questions, aging drivers can ‘discover’ a truth about themselves and their driving that might have not been accessible to them without the opportunity for reflection and knowledge that the questions and texts created.

Here, the discursive technique of posing self-reflective questions uses a fact perspective that draws upon expert knowledges, typically established in more detail in fact assemblages. The reproduction of fact knowledges in and through self-reflective questions is illustrated in the following text sequence (E), where readers are asked to examine their everyday driving experience in relation to a previously constructed fact, which established aging as typically leading to reduced flexibility (i.e., “As we age, we often have more stiffness and less range of movement in our neck, shoulders, arms and trunk”; E, p.4). Self-reflective questions (e.g., “Do you...?”, “Are you...?”) that implicitly draw upon facts encourage readers to scrutinize their driving for signs of reduced flexibility and to interpret driving difficulties as a sign of aging:
As we grow older, we may need to pay closer attention to what is going on around us. Neck and trunk flexibility may make it harder to see things around us.

1. Do you find it hard to turn to check your blind spot?
2. Are you sometimes surprised by cars that appear beside you?
3. Do you sometimes not notice people walking or riding on bikes at intersections? (E, p.10)

As illustrated above, the discursive technique of posing self-reflective questions also suggests that aging drivers should re-frame and understand certain driving experiences as a sign and effect of underlying aging processes – and not, for instance, as due to a difficult or congested driving environment. Self-reflective questions attribute ‘difficulties’ and ‘problems’ related to driving to the subject’s aging body, constructed as expectedly, increasingly and inevitably less functional. Moreover, such questions ask the reader to interrogate him or herself about suggested difficulties, problems and weaknesses, instead of, for instance, searching the self for particular strengths, or assets or experience.

In addition to inviting self-reflection, such questions also suggest the need to find a solution to the presumed problem. Note, for instance, how the following texts shape self-reflection - framed as ‘asking oneself specific questions’, ‘listen to one’s instincts’ and ‘taking a good look’ at one’s driving – as a way of problem identification that ‘might find’ and ‘can be lead to’ problem solutions:

Are other drivers impatient with you? Are you hesitant? Is there just too much information for you to handle all at once? Are you having difficulty reading the signs and signals? Have you had near misses? By asking yourself some questions like these, you might find a solution. (N, p.1)

How comfortable you feel around intersections can be an early warning sign (…) Listen to your instincts and take a good look at your diving skills. What bothers you most about intersections? Is it an inability to handle all the information quickly enough? Are you unsure about how to position the car for a left or right turn? Do you find it difficult to turn the steering wheel because of arthritis or some other physical problem? Sometimes, this sort of analysis can lead you to solutions. (D, pp. 8-9)

Self-reflective questions, as illustrated in the texts above, construct self-awareness as a way of staying in control over one’s aging body and driving. Moreover, the texts, by suggesting self-reflective questions based on fact knowledges, imply that awareness of
one’s driving self can be achieved by applying fact knowledges to the self. As a discursive technique, self-reflective questions contribute to the idea that knowing facts enables subjects to ask themselves the ‘right’ questions, which are questions that help to stay in control. Fact knowledges guide what to ‘look’ for in one’s (or in another subject’s) aging body and driving in order to find solutions and stay in control.

Besides calling aging drivers to use particular fact knowledges to ‘discover’ something about themselves and their driving, self-reflective questions have yet another function. Such questions suggest that subjects take on an observing stance towards themselves. The use of this technique, as in the subsequent text sequence, constructs a self-reflective aging subject, who is able to and should reflect on him or herself as potentially problematic and at-risk. Aging drivers are called to have a good look at and ‘ask themselves’ a set of questions, investigating themselves systematically:

Ask yourself these questions:

- Am I experiencing (...)?
- Have I been (...)?
- Do I have difficulty (...)?
- Do I have difficulty (...)?
- Do I get (...)?
- Do I have difficulty (...)?
- Am I experiencing (...)?
- Do I get (...)?
- (...) (A, p.2)

Combining this deficit perspective with a first person perspective, as in the example above, the reader is positioned to evaluate his or her driving and aging processes as potentially problematic. Although reflective questions sometimes vary from this technique of using ‘I’ and ‘you’ in texts for significant others of aging drivers, they continue to centre ‘the driver’ as the object to be investigated (e.g., “Does the driver have difficulty working the pedals?”, K, p.9, or “Do they mix up gas and brake pedals?”, H, p.3). Thus, these questions are still directed towards having the reader, be it a family
member, friend, neighbour, or significant other, become an evaluator of their aging significant other’s driving.

Self-reflective questions as employed in the texts not only ask aging subjects to take an objective observer stance towards themselves, they further suggest taking a critical stance. Subjects are called to examine driving situations from a distant, informed, and rational stance that is able to overcome feelings and personal interests, such as avoidance, fear, or denial which are positioned as irrational. Texts for instance called upon subjects to examine ‘the true’ cause behind particular driving situations by engaging in a process of self-reflection and introspection. A frequent example used in the texts is the call to critically examine one’s tickets for traffic violations. While such tickets might be caused by ‘normal’ mistakes and have been interpreted in the past as such, aging drivers, due to their position as an at-risk group, need to be especially self-critical. This is illustrated in the following quotations in which the suggested self-critical question implies that ‘the true cause’ to discover might be ‘simply’ related to underlying aging processes, a fact that only knowledgeable and self-aware subjects are able to ‘determine’:

Examine why you got the ticket or warning to determine the true cause. Did you miss a stop sign because you were inattentive or because you simply did not see it? (D, p.18)

How many traffic tickets, warnings or discussions with police officers (about your driving) have you had in the past two years?

“None” is the best response to this question. Even one ticket indicates that there are areas where you can improve your skills or make adjustments to your driving habits (…)

☐ Use the ticket(s) as a warning sign. You need to act quickly to improve your driving. Start by reading through all of these Safe Driving Tips (N, p.7, bolded and bullet point in original)

This technique of invoking self-reflection by employing a first person perspective is also used within the technique of checklist or test-formats, which will be described later in this section. Besides calling upon readers to become self-reflective examiners and observers of themselves, questions posed in this assemblage also have another significant function: they imply and constitute a standard to be ‘measured’ and ‘assessed’ against.
That is, these self-reflective questions and statements constitute a ‘norm’ of ‘ideal driving’ against which aging drivers are directed to evaluate themselves.

As a discursive technique, self-reflective questions also shape such reflection on whether one’s doing is safe ‘enough’ or is ‘risky’ to others. Aging drivers are encouraged to examine their driving to find out if age-related changes have already affected their driving function. Questions are framed in ways that enforce identification and adoption of one’s risk position. Self-reflection and self-awareness is framed as a necessary skill to protect oneself and others from becoming a dangerous, risky driver:

You should ask yourself the following question: *am I still able to get behind the wheel without risking an accident that could injure me or someone else who crosses my path?* If you *can no longer answer yes* to this question, *you will have to consider other options for getting around.* (B, p.8)

In summary, as a discursive technique, self-reflective questions call upon aging subjects to become self-reflective, self-aware, and self-critical individuals who are able to take a stance of an objective observer towards their potentially risky selves. The implicit call to apply fact knowledges, such as risk or biomedical knowledges to the self in order to understand and to act is reinforced further by the next two techniques.

**Adopting one’s risk position: Lists of ‘warning signs’**

A second discursive technique that was frequently found in the evaluation knowledge assemblage was the incorporation of a list of ‘warning signs’. Such lists typically bundled a specific set of self-reflective questions, which could only be answered with ‘Yes’ or ‘No’. This set of questions addressed the reader directly and was presented in an eye-catching way. For instance, such sets of questions were entitled or referred to in the surrounding text as ‘warning signs’ and set apart from the overall texts by presenting the questions as bulleted lists (e.g., B, D, E), often with checkboxes as bullets (e.g., A, K, X), or they were fore-fronted by an image of an actual, traffic warning sign (e.g., G, H, same publisher). Within the analyzed texts, the ‘warning signs’ technique reinforced the need for alertness and called upon aging drivers to ‘check’ their driving with regard to the presence or absence of a set of very specific ‘difficulties’, ‘problems’ or ‘experiences’. 
These occurrences were constructed as powerful signs, able to discover and indicate a driver’s risk status.

Warning signs have two main functions within the texts. First, by implicitly drawing upon biomedical discourses, they construct a subject’s general at-risk and risky status (‘Yes’ or ‘No’). Second, by framing such lists as a ‘warning’ and, thus, suitable to predict a potential danger ahead, warning signs also attempt to raise a sense of alarm with regard to an individual subject’s future. That is, warning signs function in ways that call upon aging subjects not only to evaluate their present driving selves, but also to ‘watch out’ and take care of their future driving selves. Even if no warning sign is present yet, this discursive technique implies that subjects still need to be aware that they will be at-risk in their future - once these signs occur.

The discursive technique of ‘warning signs’ in information brochures for aging drivers, implicitly draws upon biomedical discourses in ways that reproduce a list of specific ‘signs’ as powerful and authoritative tools to evaluate one’s driving. Paralleling a medical examination, aging drivers are directed to self-examine and ‘screen’ their driving function in order to come to a ‘diagnosis’ (such as, being a ‘safe’ or a ‘less functional’ and potentially ‘problematic’ driver). For instance, in the text example below (Text B), the reader is called to examine him or herself as in a medical examination, that is, for functional experiences constituted as non-normal (“problems or difficulty with...”), in carrying out a particular activity (“When you’re driving, do you ...?”), and by systematically checking ‘off’ an authorative list of possible manifestations, suggested as being able to identify and diagnose deficient functioning (“one or more of the following”). A positive ‘diagnosis’ is represented as requesting one’s full attention (“If... YES, it is important to...”) and the initiation of ‘treatment’, that is, of taking ‘prescribed’ action (“discuss”, “consult”, “update”, “review”, “choose”):

**When you’re driving, do you experience problems or difficulty with one or more of the following?**

- Are *some of the movements* you require to drive *limited*?
- *Are you confused* when you have to enter or exit a route?
- *Do you forget* which route you usually take?
• Do you react at the last minute when stopping at an intersection?
• Do you need a passenger to help you drive?
• Do you have difficulty yielding the right of way?
• Do you have difficulty backing up your vehicle?
• Do you have problems reading or understanding traffic signs or signals?
• (…)

If you answered YES to one or more of these questions, it is important to

○ discuss the situation with your family and friends
○ consult a health care professional;
○ update or review your driving knowledge and technique;
○ or perhaps choose other means of getting around. (B, pp.4-5)

Note also how the above text sequence also already foreshadows that, if ‘treatment’ might not be sufficient to ‘cure’ the problem, one might need to choose to abstain from driving completely (“or perhaps choose other means of getting around”).

Lists of warning signs parallel lists of symptoms’ or ‘health risk factors’ that physicians or medical advertisements use to deduce or suggest a ‘diagnosis’ that requires treatment. For instance, by checking on the occurrence or absence of particular symptoms, the examiner finds evidence from which a specific disease or condition may be concluded. Drawing upon the representational authority of biomedical screening tools, as well as the notion of a ‘warning’, this discursive technique constructs and establishes specific ‘signs’ as able to ‘predict’ a potential danger. For instance, the following text sequences illustrate how positive ‘signs’ construct a risk position that aging subjects need to know, have to be ‘warned’ about and become responsible for. Yet, the diagnosis that the presence of particular ‘signs’ identifies at-risk aging drivers is so taken-for-granted that it is only present in the produced need for action which is offered as a way to avoid the implied danger:

If you answered YES to one or more of these questions, it is important to [list of suggested action following] (B, pp. 4-5)

If these warning signs reflect your situation, maybe it is time to encourage your family member to make some changes and have their driving evaluated. (H, p.3)
If you have checked one or more of the warning signs and are concerned about your driving ability, talk to your doctor or family and get their opinions. (A, p.2)

The produced if-then relationship within this technique implies a causality (if a sign is present, then a subject is at risk), which is also directed towards action (if a sign is present, then something needs to be done to avoid a predicted danger). By generating an ‘if-then’-causality between ‘signs’ and ‘action’ as illustrated above, warning signs strengthen subsequent action as the only rational consequence out of risk identification. Moreover, this discursive technique enforces the idea that ‘warned’ subjects have a choice between becoming a risk to themselves and others or not - by choosing actions that are constructed as being effective in decreasing the outlined risks.

Within the textual sample, warning sign techniques contribute substantially to privileging the overall rationale that identified risks, known through fact and self-evaluation call for specific action, and cannot, for instance, be tolerated or willingly taken by subjects. Lists of ‘warning signs’ incorporate and reinforce fact knowledge assemblages, thus they reproduce the notion that specific age-related changes within the body are the cause of driving-related risk. The following text sequence (K) illustrates this. The sequence calls upon relatives of aging drivers to “look for signs of risky behind-the-wheel behaviour” (p.9) in their significant others. The text suggests interpreting an aging driver’s risky behaviour not as a ‘normal’ weakness, such as a ‘bad habit’, but as potentially caused by age-related, functional changes in the driver’s aging body. Note also how particular word choices (e.g., ‘waning’, ‘deteriorating’) in the subsequent sequences reinforces an aging driver’s constant and expected at-risk position by drawing attention to aging as an ongoing and subtle process of loss of driving abilities:

Other indicators.

You can ride along with a driver and look for signs of risky behind-the-wheel behaviour. (...)

❑ Does the driver have difficulty working the pedals? (…) That may be a sign of waning strength (…)

❑ Does the driver have difficulty merging on freeways, or turning onto busy streets? Vision problems may impair his or her ability to judge the speed and distance of approaching traffic.
When merging or changing lanes, does the driver rely only on the mirrors, rather than turning fully to check the blind spots over his or her shoulder? (…) Failing to do so may be a bad habit — or may indicate the onset of stiffness in the neck and back.

Does the driver have trouble seeing other vehicles, cyclists, or pedestrians, especially at night? Deteriorating night vision or sensitivity to glare may be the cause. (K, p.9)

These negative functional changes (e.g., “waning strength”, “Deteriorating night vision”), which had been constructed in the booklet’s preceding chapter as ‘normal’ and to-be-expected aging processes are now reproduced as the probable underlying causes (e.g., “may be the cause”) for a particular ‘driving behaviour’, established as a warning sign that one has become an aging, at-risk driver.

Warning signs also contribute to the overall assumption that driving in later life is ultimately limited. The texts suggest that, if warning signs occur, “it is time to limit one’s driving” (E, p.22) and subjects need to understand “the fact that they may no longer be safe drivers” (E, p.22). Thus, ‘warning signs’ are also employed in ways that contribute to the construction of driving as ‘naturally’ limited. This can be illustrated by the following two text sequences (F, E) which frame warning signs also as “things to watch for” (E, p.22), indicating that one’s ‘driving end’ is near, and as signs of “when to stop driving” (F, p.4):

**Things To Watch For**

Many people gradually reduce their driving, until one day they simply stop. Others have more trouble deciding when it is time to limit their driving. Here are some warning signs to alert you to the fact that you may no longer be a safe driver and may need to consider alternatives to driving:

1. Am I nervous behind the wheel?
2. Do other drivers frequently honk at me?
3. Have I had a number of fender benders and near misses?
4. Do my family or friends worry about my driving?
5. Do my children trust me to drive in the car?
6. Have I ever become lost when driving or forgotten where I was going?

Figure 7: Evaluation knowledge assemblage, example use of warning signs 1 (snapshot text E, p.22)
In summary, like other techniques employed in the evaluation assemblage, ‘warning signs’ function to heighten awareness of an aging driver’s at-risk position. As a discursive technique, warning signs generate a special notion of danger and the need for ‘watchfulness’, because warning signs, even if they are not present yet, might occur in the future. Warning signs, like risks, emphasize, and shape a perspective towards the future. In contrast, self-assessments, discussed next, use the authority of objective, scientific and neutral evidence to establish the conclusion and ‘proof’ of one’s risk status.

Knowing the self and where to improve: Self-assessments

A third main discursive technique employed within evaluation knowledge assemblage sections consists of suggesting self-assessment tools which are presented in ways that represent an objective and scientifically-validated assessment. For instance, the subsequent text sequence (U, p.14), suggests the use of such self-“screening tool”, able to “measure certain mental and physical abilities”, to “predict the risk of causing a crash due to age-related functional decline”, and based on brand new (“one of the first … tools available”) and “scientifically validated” knowledge:

**Roadwise Review Online** is a free screening tool developed to help seniors measure certain mental and physical abilities important to driving. It identifies and provides early warning about declines in critical safe driving abilities. This is one of the first Internet-based self-screening tools available to consumers using scientifically validated measures that predict the risk of causing a crash due to age-related functional decline. It complements and supplements the Performance Checklist in this brochure (U, p.14).
In comparison to warnings signs, this discursive technique involves a more intensive process of self-evaluation, calculation, and risk identification. While ‘lists of warning signs’ invite aging drivers to ‘screen’ themselves with regard to their risk status, self-assessments invite to ‘measure’ oneself with regard to specific risks. Moreover, self-assessments are constructed as being able to provide detailed ‘data’ that identifies which areas require an aging driver’s specific attention (e.g., “Use this tool to identify areas you need to brush up on”, Q, p.1). For instance, the text sequence below (Text X) encourages aging drivers to engage in a process of self-evaluation by suggesting various self-assessments, which are produced as being able to depict driving reality. Aging subjects are called to assess their personal “driving fitness” and to “check” several of their body functions, constructed as important for ‘full’ driving function (“reaction time, visibility, flexibility and more”). The text sequence promotes that administering self-assessments can provide “instant suggestions for improvement of risky driving practices”:

**Self-Assessment Questionnaires**

Preferably, aging drivers should assess their own driving performance to identify strengths and weaknesses and learn how to compensate for them. Consider:

- **CAA “Check your own Performance”** online quiz:
  - A 15 question self-rating quiz taken privately that asks about driving skills and habits. *It provides instant suggestions for improvement of risky driving practices.* (…)

- **Roadwise Review** CD-ROM:
  - Assess your driving fitness in the privacy of your own home through these computerized scenarios which check reaction time, visibility, flexibility and more. CDs are available at (X, pp.2-3).

As in a medical examination, texts, such as the above, suggest that “aging drivers should assess their own driving to identify strengths and weaknesses and to learn how to compensate for them” (X, p.2). Though most of the self-assessments provided make no explicit reference to science, they imply that they are scientifically derived, objective, modern and precise (“computerized tools”, “reaction time”).

The self-assessment technique has three main effects. First, as assessments and tests are designed to measure, they construct a norm or standard to be measured against. For instance, this technique establishes assessment items, such as “I find it difficult to decide
when to join traffic on a busy highway” (D, p.2) as scientifically derived ‘identifiers’ of insufficient driving function. Thus, ‘having no difficulties when joining traffic on a busy highway’ becomes implicitly constructed as a sign of ‘normal’ driving. Second, by assessing functions separately, this technique again reproduces the idea that overall function is the sum of several, separate assessable functions that all need to be fully functional for ‘normal’ driving. Third, self-assessments refer to the authority of science by paralleling and mimicking medical assessments.

Self-assessments use computational language, such as ‘item’, ‘score’, ‘compute’, or ‘tools’. Such word choices reinforce the idea that one can use a particular, seemingly scientific tool, to objectively examine one’s driving self. The notion of accuracy and authority is also achieved by providing detailed and often sequenced advice and instruction on how to exactly administer the provided test to oneself or others. These stepwise ‘instructions’ emphasize not only the complexity and accuracy of the evaluation process; they also reproduce the provided ‘tool’ as objective, scientific and authoritative. The following example instructions, taken from a “Safe Driving Checklist” (Q), based on categories that “are the same as those in a real driver’s road test” (Q, p.1), illustrate how self-assessments for aging drivers reproduce a common understanding of scientific and standardized ‘testing’. For instance, in a standardized, scientific test, the tester has to be interest-free, competent and ‘trustworthy’ (“ask a trusted friend or family member”), test and tester have to be able to ‘catch’ all things in question (“Pick [only] a section … This will allow … to concentrate on a few skills at a time”), the test has to assess a standard or ‘typical’ situation under standard or ‘normal’ conditions (“plan a route that reflects the type of driving you typically do”), and finally, test ‘items’ have to be recorded correctly so that subsequent calculation reveals accurate results (“check the best response for each item... if an item does not apply to you or your vehicle, leave that line blank”):
Another discursive technique was that of providing ‘instructions’ on how to ‘accurately’ administer a provided self-assessment. The incorporation of calculations generates the notion of accuracy and validity of provided self-assessments. For instance, the “Drivers 50 Plus Self rating form” (Text D), a key assessment tool recurrently referred to within several texts, assigns each possible self-rating (“Always”, “Sometimes”, “Never”) a square, triangle or circle. The allocation of these symbols varies between questions; for example, in one question the response “Always” results in a circle, while in another question “Always” results in a square. This discursive technique gives the impression that responses are carefully ‘weighted’ and that the rating is based on an underlying system of knowledge. This following snapshot provides an impression of this self-assessment technique:
Moreover, the rating system appears to be purposefully ‘hidden’ to the self-rater. This suggests objectivity and accurateness of the evaluation process, as subjects might want to influence the ‘real’ results in their favour. The subsequent ‘scoring’ process also appears to be methodical and based on expert knowledge. This notion is achieved by producing an implicit need to divide the process into smaller sequences, assumedly more manageable for the assessment-taker (“There are five steps”), by providing detailed instructions on how to proceed correctly (“Write the Check Mark Total in the square above”) and by the use of calculation (“Multiply the number in square by five”, “Multiply the number in the triangle by three”, “Add the results of Steps 3 and 4”):
Nevertheless, even though the provided self-assessments are constructed as accurate and able to ‘measure’ driving fitness and safety, texts also establish the notion that one can never be ‘safe’ enough and can always ‘improve’. That is, the texts call upon aging drivers to never consider a good or perfect score as an invitation to rest. As illustrated by the next snapshot, taken from of the “Drivers 50 Plus Self rating form” (Text D) result’s section (p.4), the main purpose of the self-assessment technique is not to feel certain that one might be a good and safe driver. Rather, the purpose is to become self-aware of what qualities and practices are “important for safe driving” (D, p.5). Thus, responsible drivers, who have come to understand themselves as at-risk drivers through fact and evaluation knowledge assemblages, always benefit from learning how they can become ‘safer’, even if their score shows that they are ‘good to go’:

**Figure 11**: Evaluation knowledge assemblage, example of calculating a score (snapshot text D, p.4)
In line with the overall purpose of the evaluation assemblage, assessing the self is not an end, but a means to gain self-awareness which subsequently initiates and guides action. In other words, knowing ‘how well one does’ is not as important as becoming aware that one will not ‘remain’ in this position without taking action. Thus, the self-assessment technique also establishes the value and duty to continue to assess oneself and to begin to work on improvement. This call for ‘improvement’ is illustrated in the following examples:

The best response, in every case, is “Always”. The more times your observer checked “Always,” the better. Try to increase the total number of checks under “Always” each time you go out on the road with your observer. It’s interesting to see how well you do, but the real purpose of this checklist is to help you identify and address areas of concern so you can become a safer driver. (Q, p.1)

No matter what your score, look at the “Suggestions for Improvement” (...) In general, a checked square for an item reflects an unsafe practice or situation that should be changed immediately. A checked triangle means a practice or situation that is unsafe, or on its way to becoming unsafe if nothing is done to improve it. Checking circles is a sign that you are doing what you should be doing to be (and remain) a safe driver (...) The following pages contain suggestions for improvement (...) You should review all of them but you will want to focus on those for which you checked squares or triangles. (D, p.4-5)

As well, while self-evaluation tools are given great significance and authority within the analyzed texts, the limits of the provided tools, and of self-evaluation are also constructed

<table>
<thead>
<tr>
<th>SCORE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 15</td>
<td>GO! You are aware of what is important for safe driving and are practising what you know. See the “Suggestions for Improvement” in the following section of this booklet to learn how to become an even safer driver.</td>
</tr>
<tr>
<td>16 to 34</td>
<td>CAUTION! You are engaging in some practices that need improvement to ensure safety. Look to the “Suggestions for Improvement” section to see how you might improve driving.</td>
</tr>
<tr>
<td>35 and over</td>
<td>STOP! You are engaging in too many unsafe driving practices. You are a potential or actual hazard to yourself and others. Examine the areas where you checked squares or triangles. Read the “Suggestions for Improvement” section for ways to correct these problem areas.</td>
</tr>
</tbody>
</table>
in the texts. That is, while subjects are called to engage in self-evaluation to initiate further action, the final authority to evaluate driving ability and function is constructed as clearly remaining within experts. Thus, aging drivers are called to use self-evaluation a ‘start’, but also to seek help from medical and driving experts in getting a ‘thorough’ and regular expert assessment:

Your results are intended to provide you with some general guidelines to help you refresh your driving skills and habits and drive more safely. Only professional driving examiners and instructors are qualified to do a thorough assessment of your driving skills and habits. Nevertheless, you can use this tool to help you identify some areas where you might need to improve (Q, p.1).

**Getting help**

- an occupational therapist or a certified driver rehabilitation specialist can evaluate driving, develop programs to improve safe driving, or help find alternative transportation (H, p.7)

In conclusion, the evaluation knowledge assemblage, using particular discursive techniques such as self-reflective questions, lists of ‘warning signs’, and self-assessments raises self-awareness about one’s personal at risk position when one ages. The evaluation knowledge assemblage calls upon aging drivers to self-reflect, watch, and assesses themselves, based on fact knowledge, in order to gain significant self knowledge. It also constructs and sets up a need to take particular action, based on and guided by fact and self knowledge. This call for action is constructed by drawing upon a third set of discursive techniques, summarized as action knowledge assemblage.

### 5.2.3 The action knowledge assemblage: ‘Stay safe and plan ahead!’

The action knowledge assemblage was the third main set of discursive techniques employed in the texts. Within the analyzed texts, the action-assemblage uses a set of discursive techniques that call upon aging drivers to actively respond, in particular rational and responsible ways, to the constructed problem of the ‘aging driver’ and a potentially problematic, risky self.

The action assemblage functions together with, relates to, and builds upon the other two assemblages. In conjunction with the other two assemblages, this assemblage further
 constructs who has the power to ‘solve’ the outlined problem, and, thus reinforces who is responsible for action. In other words, the action knowledge assemblage constitutes ‘taking action’ as flowing from ‘knowing’ about the problem (fact-knowledge) and ‘assessing’ oneself with regard to the problem (self knowledge) of driving in later life.

Action assemblage techniques achieve two main functions: they invoke action through various discursive techniques, but also privilege particular actions as ‘the’ rational and responsible actions to take. As well, by framing specific actions as a rational response and responsible ‘solution’ to the outlined problem of driving in later life, the action assemblage contributes to locating the overall problem within individuals. By rationally and responsibly taking specific actions, subjects, according to the texts, have the power to reduce identified risks and ensure their own and others’ safety (e.g., “Here are some strategies that can be used to reduce the risk”, H, p.4, “This brochure ... suggests steps that can be taken to keep you and other road users safe while you’re behind the wheel”, A, p.1). Suggested actions, for instance, encompass simplifying or limiting one’s driving, engaging in body and health practices, monitoring age-related body changes through the help of experts, and planning ahead for a ultimately car-less future by pro-actively creating conditions for a “life after driving” (B, p.8).

The action assemblage employs a set of recurring discursive techniques to call upon individuals to become active in interaction with, and beyond reading, the texts. The four main discursive techniques include: (i.) imperative mood and personalized language; (ii.) ‘how-to’ formats, tips and strategies; (iii.) writing prompts and ‘tasks’ within texts; and (iv.) resources. The following section illustrates how these techniques functioned to call upon subjects to become active so as to reduce ‘their’ risk to driving safety by taking up particular practices.

Constructing and personalizing the ‘imperative’ to act: imperative mood and personalized language

A central discursive technique within the action knowledge assemblage is the use of verbs in their imperative mood calling for, and directing action. In the English language, imperative clauses are typically used to give directives, such as requests, instructions,
advice, or encouragements (Downing & Locke, 2006). Texts, for instance, called upon readers to “Get your hearing checked” (N, p.5), “Report the following symptoms to your doctor” (A, p.3), “Do regular flexibility exercises” (E, p.10), “Choose the best time to drive for you” (X, p.13), “Take a refresher course” (D, p.19), “Learn to appreciate the close ties between personal health habits and driving skills” (D, p.16), “Use alternatives to driving” (A, p.4), or “Make a personal transportation plan” (H, p.8). As imperative clauses do not require a subject, this specific discursive technology addresses the reader as the subject who needs to act. At the same time, by giving direction on what to do, the imperative form privileges a particular action as the preferred, rational, and responsible choice. The frequent and pervasive use of the imperative mood in the action assemblage creates a dominant message, underlining the need to become active. For instance, the subsequent text sequence illustrates such a repetitive use of the imperative mood. Taken from a booklet for significant others, the sequence enlists relatives of aging drivers to build transportation options for ‘their’ senior. Suggested actions to engage in begin with verbs in their imperative form:

Explore public transportation.

Make transportation an important consideration in choosing a retirement home (...) Contact the local or regional transportation authority (...) Above all, help your senior with the “homework” involved in arranging public transportation. Know the eligibility requirements for bus passes and senior discount cards, fill out the required forms, and learn the schedules and routes. (K, p.18-19)

Besides the frequent use of the imperative mood, the action assemblage also calls subjects into action by a frequent use of personal and possessive pronouns, such as ‘you’ and ‘your’; sometimes strengthened by a redundant use, such as in “your own mobility” (X, p.17) or “your personal health” (D, p.16). This related discursive technique, personalizing the message that action is required, also assigns an individual responsibility for action. For instance, the following text sequences illustrate how personal and possessive pronouns create an individual responsibility for action and carve out individual areas of action. By constructing individual action as able and needed to address a particular concern, the addressed subject becomes implicitly positioned as responsible for this concern:

You can take steps to change your driving habits and reduce your risk (S, p.2)
What *you* eat, how much *you* exercise and regular visits to the doctor (and following the doctor’s advice) *can help you* keep driving longer and *extend your life* (...) It all begins with *your attitude* about how much control *you* believe *you* have over *the quality of your life*. It ends with how much of it *you* are willing to exercise (D, p.16).

Consider making a transportation plan by (...) This way, you can control *your own mobility choices* to maintain *your independence*... and *safety*. (X, p.17, last three periods in original)

Within the texts, individual responsibility for action is also reinforced by drawing upon pronouns in ways that ‘attach’ particular concerns to the addressed subject. This technique forms the subject as the ‘owner’ of the concern and thus, as responsible to become active. For instance, as illustrated above, social concerns, such as accident risk, quality of life, mobility, independence, and safety become a personal matter (i.e., “*your risk*”, “*the quality of your life*”, “*your own mobility*”, “*your independence and safety*”). This technique also enlists subjects to become active by implicitly suggesting that *not* engaging in recommended practices might shape ‘one’s’ life conditions negatively (e.g., ‘*not* taking steps... might maintain risk’, ‘eating unhealthy... might shorten driving life’, ‘*without* a transportation plan... one might lose control over one’s mobility, independence and safety').

The personal responsibility and imperative to act is, in some texts, also constructed by directly and individually calling upon aging subjects to reflect on the ways they conduct themselves. For instance, the following text sequences, personally question readers:

> Have you made the choice to regulate your own driving by (...) *Have you considered* vehicle features that make driving easier such as...” (X, p.15)

> What strategies *will you use*? (G, p.9)

In these quotations, rhetorical questions and personal pronouns direct aging subjects to ‘judge’ how they have done in their past or will do in their future with regard to an ideal action that is implicitly presumed. The use of this technique, invoking individual action by indirectly implying that ‘good’ subjects have ‘already’ taken action (and others need to ‘catch up’), can also be illustrated by the following two quotations. Note, how the word ‘already’ is used in ways that implicitly creates a moral expectation of engaging in individual action (e.g., keeping a medication list, knowing one’s problem areas):
All older adults should keep an up-to-date list of all medications (...) If you do not already have a list, at the end of this Booklet there is a handy table you can cut out. (E, p.7)

You probably already know what your problem areas are. Learn some important safe driving tips. (N, p.1)

As illustrated, the use of the imperative mood, as well as the use of personal and possessive pronouns within the action assemblage reinforces a call for individual action and constructs individual responsibility to take action.

Setting boundaries for the 'right' actions: ‘How-to’ formats, tips and strategies

A second main discursive technique identified within the action assemblage is the provision of instructions and advice on what actions should be taken and how to best take them (“How do I get more information on driving safety?”, A, p.8, “What can you do?”, M, p.1). As in the example below, this discursive technique assumes and constructs a subject that will become active and needs and benefits from information on ‘how-to’ do so:

What can you do?

• Plan your route to avoid complicated intersections and to minimize the number of left turns required

• Ensure you have time to safely complete your intersection maneuver (e.g., turning left).

• Scan ahead and to the sides, looking for: traffic signs and signals, oncoming and crossing vehicular traffic, and other road users, before proceeding.

• Focus all of your attention on driving. (M, p.1)

Another text (D) lists “several things” that one can do “to handle” one’s expected “loss of vision”:

There are several things you can do to handle the loss of vision that comes with aging:

• Take the corrective steps recommended by your doctor (...
- **Enroll in a retraining or refresher course** where you can learn specific techniques for coping with the limits imposed by aging eyes. (…)
- **Accept the limits of “aging eyes”** and reduce the amount of driving you do after dark and at twilight (one of the most dangerous times). (…)
- **Avoid tinted windshields** and always keep your windshield and headlights clean.
- **Turn your head frequently** to compensate for diminished peripheral vision.
- **Keep your eyes up** – look at the road ahead to see trouble before you reach it. (D, p.14)

‘How-to’ formats invoke action by presupposing *that* action can and will be taken, although subjects might need information on ‘how to’ take action and ‘what’ to do. As this technique takes for granted that the suggested ways of doing are principally available to all subjects (“There are several things you can do”, D, p.14), barriers to action become shaped as an information problem (and not, for instance, as a problem of lacking resources or difficult life conditions).

Texts sections which employ a ‘How-to’ format often read like concrete ‘To-do-lists’ or ‘instruction manuals’, outlining the ‘steps’ that need be taken to attend to previously constructed problems. That is, they are implicitly shaped as a solution to a problematic ‘truth’ previously established by fact assemblages. For instance, the next text sequence, providing first the rationale of *why* action needs to be taken by using a fact assemblage, reinforces action by using an implied ‘How-to-structure’ that informs which actions are to be taken to reach desired goals (being able to “adjust” to, “improve” and “compensate” for age-related vision problems). To highlight this rhetorical structure and technique, I have omitted the detailed lists of suggested practices [*do this*] that the text provides:

**LIGHT**

To see clearly, a 60-year-old requires 10 times as much light as a teenager. *To help you adjust: [*do this*]*

**CLARITY**

The eye’s ability to focus slows with age (...) *To improve visibility: [*do this*]*

**GLARE**

Our sensitivity to glare increases as we age (...) *To help reduce glare: (…) [*do this*]*

**COLOUR SENSITIVITY**
Colours, especially red, become less bright (…) *To help with contrast:* [*do this*]

**FIELD OF VIEW**

With age (…) depth perception lessens (…) *To compensate:* [*do this*] (X, pp.9-11)

A related technique that is employed within the action assemblage is the provision of ‘tips’ and ‘strategies’, constructed as helpful practices to support action. These are often presented in bulleted lists, using arrowheads (e.g., E, p.9) signifying direction, or checkboxes (e.g., X, p.3) and checkmarks (e.g., A, p.4) reminding subjects to ‘check’ how they are doing with regard to the suggested action. The subsequent figure shows a sample of snapshots from texts which draw upon this technique. Note also, how the call to take up particular practices, offered as ‘tips’ and ‘strategies’, is constituted as a means to increase ‘safety’:

![Safe driving tips](image)

**Figure 13:** Action knowledge assemblage, example use of tips and strategies (snapshots of five different texts; text at the top A, p. 4; at the middle left H, p.; at the middle right X, p.4; at the bottom left D, p.17; and at the bottom right G, p.6)

With regard to their content, practices framed as ‘tips’ and ‘strategies’ do not differ from practices suggested in ‘How-to’ formats. They equally constitute specific actions as rational, responsible and risk-reducing responses to established facts. However, the ‘Tips-and-strategies’ format employs a slightly different discursive technique than ‘How-to’
formats. In common English language, a ‘tip’ is usually understood as a piece of advice given by someone who knows more than the tip-taker and whose expertise, authority, or advanced knowledge, offered as a tip creates an advantage in approaching a specific situation (Merriam-Webster, 2003). Likewise, a ‘strategy’ commonly describes a careful, clever, and systematic plan, promising success in rationally approaching a complex and tricky situation (Merriam-Webster, 2003). Framing suggested practices as ‘tips’ or ‘strategies’ achieves two main effects. First of all, this discursive technique contributes to the idea that being prepared for an upcoming situation by having advanced knowledge and a rational plan is advantageous. Second, while ‘How-to’ formats are more authoritative in constituting one way of doing as the ‘right’ and common way, offering tips and strategies reinforces the idea of choice. Calling for action, this discursive technique underlines the idea that subjects are free to choose their actions - while ‘How-to’-instructions should be followed closely to achieve the targeted objective, ‘tips’ and ‘strategies’ might be taken or declined. However, as tips and strategies are framed as advantageous and valuable advice and able to increase ‘safety’, it would be irrational and irresponsible to decline them. By suggesting that taking up tips and strategies is a helpful and a responsible choice, this technique calls upon subjects to engage in particular practices. The emphasis of choice is also illustrated by the text sequence (B, p.13) below. The text provides advice on how to best “convince a senior to stop driving” by calling upon significant others to choose the best “approach” out of “a number of ways” that one could use “to address the issue”:

To convince a senior to stop driving, it is usually preferable, even essential, to ask someone close to the individual to speak with them (...). There are a number of ways you can address the issue. The type of approach will depend on the individual’s responsiveness and the urgency of the situation. You can:

- **be direct**, use an open approach (for example: “You should have a doctor assess your health before you have an accident.”);
- **use reasoning and compassion** (for example: “I wouldn’t want anything to happen to you.”);
- **find a reason** when the situation is urgent and cannot continue (for example: “Your car isn’t safe anymore... The brakes are failing...”); (B, p.13)
However, as typical with action assemblages, the overall action and rationale – that a particular action needs to be taken (such as, that a risky senior needs to be convinced stop driving by his or her significant others) - is already made and remains unquestioned.

As illustrated, ‘how-to’ and ‘tips-and-strategies’ formats are discursive techniques that both reinforce action, but moreover set boundaries for the ‘right’ actions. They do so by framing particular actions as a standard and ‘right’ way of doing (i.e., ‘how-to’) to reach a particular goal (such as increasing safety) and by framing particular action as a rational and responsible choice (i.e., ‘tips and strategies’) which will improve one’s situation and action.

Prompting immediate and future action: Writing prompts and ‘tasks’ within texts

A third discursive technique typical for the action assemblage is the incorporation of writing prompts and ‘tasks’ within texts. This technique functions to invite subjects to engage in immediate and future action. Texts, using this technique, suggest filling out empty lines to respond to and personalize gained information (e.g., “What age-related factors affect your driving?”, F, p.6), using work-sheets to systematically analyze one’s resources (“Are other transportation alternatives available to you? □Yes □ No“, R, p.2), engaging in calculation exercises to learn something new (“Try this simple exercise… You will be surprised at how much mobility you can purchase”, D, p.27), and fabricating an individual ‘action plan’ to prepare and commit to future action (“Making a plan of action is an important commitment that can help you stay safer on the road”, R, p.1)
The following snapshot of a text sequence (R) illustrates how empty lines, unfinished sentences (“I am going to…”), an already filled out example (“I am going to… avoid left-hand turns”) and a font implying handwriting, prompts readers to interact with the text by engaging in writing:

**Your driving**
Write down the steps you need to take to help you be safer on the road.

**My driving:** I am going to… *avoid left hand turns.*

**My vehicle’s safety features:** I am going to...

**My driving skills and knowledge:** I am going to...

**Figure 15:** Action knowledge Assemblage, example writing prompt (snapshot text R, p.1)
Aging subjects are prompted to write down in the empty lines which actions they plan to take, based on what they have learned (“Write down the steps you need to take to help you be safer on the road”, R, p.1).

Writing prompts and tasks not only invoke immediate action, but also facilitate the application of fact knowledges to one’s individual life and driving context as illustrated in the next text sequence (E, p.26). This text calls upon aging drivers to take action with regard to their assumed medication, constructed in the preceding text as a specific risk factor for aging drivers. The presented action prompt, introduced as “My Medication Action List”, calls upon aging drivers to produce a medication self-inventory by compiling information about their medication, as well as to inquire about potential side effects by listing them for each medication:

Figure 16: Action knowledge assemblage, example action task (snapshot text E, p.26)

Another common ‘task’ that many texts draw upon is the call to calculate current transportation costs. Texts, as illustrated below, imply that by engaging in this “simple exercise”, aging drivers will come to understand the ‘real’ costs of current transportation in order to ‘free’ money for future transportation.
This specific exercise privileges fact knowledges, derived from rational calculation (i.e., the ‘true’ costs) over subjective knowledges (e.g., ‘regularly taking a cab might not be affordable’). The construction of rational calculation as beneficial is achieved by constructing the calculative exercise as able to save money (e.g., “Savings… the money you will save”, X, p.19) and enlightening (e.g., “You will surprised”, D, p.27). Furthermore, employing a calculative approach is implicitly constructed as being able to find ‘hidden’ resources and to create new options (e.g., “You will be surprised at how much mobility you can purchase for your car’s annual cost”. D, p.27) by becoming informed. Note also, how the dominant value that guides the implied decision-making process in this exercise is monetary. The exercise’s specific structure and technique contributes to the construction that rational subjects will make decisions based on a cost-
benefit analysis not, for instance, on what owning a car might represent and mean to them.

The discursive technique of incorporating writing prompts and individual ‘tasks’ is employed to prepare and ‘ensure’ future action. The following snapshot, taken from a “Planning Ahead Worksheet” (R), calls upon subjects to reflect on “their own specific transportation needs” (p.3) by filling out and imagining if they would be able meet their transportation needs if they “were no longer able to drive” (p.3):

![Table: Your home]

<table>
<thead>
<tr>
<th></th>
<th>How do you currently get there?</th>
<th>Would you be able to get there in the future if you felt uncomfortable driving or were no longer able to drive?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shopping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visiting family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visiting friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other places you socialize</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place of worship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your doctor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other places (list them)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 18:** Action knowledge assemblage, example use of personal planning (snapshot text R, p.3)

After ‘determining’ needs and ‘identifying’ possible problems in one’s future by filling out the provided table, the worksheet suggests ‘thinking’ about the impact on one’s future “lifestyle and quality of life” (R, p.3) if one could not “get to these places in the future” (p.3). The sheet then calls to engage in and write down answers to questions, such as “Would relocating make it easier for you to get where you want and need to go?” (p.3); “Is moving at some point an option (now or in the future)?” (p.3); “Where might you
consider moving to that would make it easier to get where you want and need to go?” (p.3). The above example illustrates how writing is also used to invoke ‘planning’, by prompting and guiding future action in certain ways.

Moreover, the writing and task technique enforces commitment to action by prompting readers to produce ‘reminders’ that summarize what was learned or by writing down ‘action plans’ for one’s future. As in the example text below, this discursive technique implies that written notes are helpful to provoke commitment and to bring important information back to mind. Since one’s future self might not be as understanding or as motivated as the current, informed self (or might have simply forgotten about one’s plans and resolutions), one might need to ‘remind’ oneself why particular action needs to be taken and what needs to be done:

![PERSONAL REMINDERS](image)

Figure 19: Action knowledge assemblage, example use of commitment to action (snapshot text F, p.6)

The notion of a written agreement or ‘self-contract’ that ‘binds’ the self to a particular action is even stronger in the next example. This text sequence, positioned at the end of a “Planning Ahead Worksheet” (R, p.4), prompts aging subjects to ensure future action, by
writing down which ‘steps’ they will take in their nearer and longer future so as to work towards “their future mobility”:

**Figure 20**: Action knowledge assemblage, example of planning one’s future and future action (snapshot text R, p.4)

The example above enlists subjects to set up and commit to a detailed and individual ‘action plan’, which outlines what one ‘is going’ to do in one’s future (i.e., “In the next two weeks”, “Within the next six months”, “Within the next year”, “Within the next two years”, “beyond two years”). The incorporation of ‘planning tasks’ within the action assemblage also reinforces the idea that ideal subjects become active by planning carefully, for both their current and their future life conditions.
Eliciting continued action: Resources

A fourth discursive technique tied to action sections is the incorporation of ‘resources’ at the end of many texts. As a discursive technique, ‘resources’ call upon readers to become active beyond the actual text by following up on and gathering ‘more’ information, constructed as beneficial to possess (“For more information ...”, A, p.10, “The following websites offer valuable information for senior drivers“, K, p.23). This technique enlists subjects to build personal information resources in order to become and remain a safe driver and to engage in further ‘information work’ as an important activity and strategy to address the outlined problem. Therefore, this technique contributes to the overall construction of ‘knowledge’ and ‘knowing’ as a valuable resource and means to facilitate, enable, and improve action.

Figure 21: Action knowledge assemblage, example use of resources (snapshots of four texts; at the top left H, p.5; at the top right E, p.25; at the bottom left M, p.1; at the bottom right A, p.10)
Aging drivers are called to gather ‘more’ information, framed as ‘resources’, that is, as something that can be drawn upon for further support and help. The snapshot of a sample of texts in Figure 22 provides a visual impression of how this technique is employed to invoke action. As a discursive technique, ‘resources’ also call upon subjects to follow-up on provided information in their individual life contexts and to ‘scout’ their environment for ‘information sources’ to build and open up local resources. Texts called aging drivers to find out “when there will be an aging driver workshop in their community”, to “visit their local offices”, or to “ask your local library for help” to access further information:

Go to an SAAQ service centre. Phone us before leaving. In most cases, we can provide you with the information you need. (B, p.16)

- Attend a Living Well, Driving Well workshop for mature drivers. Find out when there will be a workshop in your community. Call toll-free (…)  
- Visit your local BCAA office for a copy of the Mature Driver’s Handbook (P, p.1)

The following websites offer valuable information for senior drivers. If you don’t have internet access, ask your local public library for help. (K, p.23)

The Saskatchewan Safety Council offers refresher courses for older drivers (…) For further information contact the Saskatchewan Safety Council at (…). There may also be other course providers in your community. Call (…) (D, p.26)

This discursive technique, suggesting particular resources offered by particular agents, also reinforces who is constructed as having authority, expertise and information about what to do and how to best do it. For instance, texts suggest the Public Health Agency of Canada as an authoritative source to “find out how to be more active” (A, p. 10), the Canada Safety Council and the Canadian Automobile Association as having “information on senior driver safety or other senior driver education programs” (E, p.25), or the Canadian Association of Occupational Therapists and the Association for Driver Rehabilitation Specialists as valuable information resources to contact (H, p.5).

Similar to other discursive techniques within the action assemblage the ‘resources’ technique not only calls for, but also directs action. The text sequence below illustrates how these information resources attend to particular ‘problems’ constructed by fact assemblages as endangering safe driving (such as lack of other transportation options, insufficient health for driving requirements, living an unhealthy lifestyle):
Other information sources for seniors


**To find out if your area has special transportation services for seniors call:**

- Seniors’ INFOline – [phone number] or in Toronto – [phone number]

**To answer questions about your health concerns call:**

- Telehealth Ontario – [phone number] – a free government service, available 7 days-a-week, 24 hours-a-day

**To find out how to be more active, request a free Physical Activity Guide for Older Adults from:**

- Public Health Agency of Canada – [phone number](A, p.10)

By providing advice on whom to contact ‘to find out about transportation’, ‘to answer questions about health concerns’, and ‘to find out how to be more active’, the text refers to practices previously constructed as ideal (such as, planning for one’s future transportation, monitoring one’s health, improving one’s health). The ways in which ‘resources’ also solidify ideal practices is also illustrated in the snapshot, depicted in Figure 23. This snapshot of the last page of a booklet provides resources that call upon aging driver to engage in previously established ideal practices (such as administering self-assessments to oneself or “brushing up” on one’s driving knowledge by enrolling in a “driving courses”):
This implicit relation of resources to previous texts sections and fact knowledges contributes to the production of the idea that individuals have, by reading the preceding texts, learned something that will now guide their future action. The ‘resources’ technique, used at the end of brochures for aging drivers, establishes the idea that action can be initiated by information that the brochures provided, but has to be continued by transformed individuals who understand the value of gathering information to increase individual possibilities for future action. The technique also contributes to the idea that ideal subjects are independent ‘learners’, who always strive to gather ‘more’ up-to-date information, provided by experts, to facilitate and improve their actions.

As illustrated, action knowledge assemblages use particular discursive techniques to invoke individual action and responsibility for action. Consistent with the other two knowledge assemblages, action assemblages locate the aging driver problem, and its solutions within individual drivers who are called to become active and to avoid becoming a risk to themselves and others. The next section describes how the three knowledge assemblages function together, that is, how they co-join, draw upon and

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**Figure 22**: Action knowledge assemblage, example of relationship between resources and reinforcing ideal practices (snapshot text X, p.21)
reproduce each other in creating the overall rational and discursive effect, which is illustrated subsequently.

5.3 Rhetorical structure: Interconnections between knowledge assemblages

The identified fact-evaluation-action schema reflects a broader rhetorical structure and logic inherent in the overall texts. Combining the three knowledge assemblages in a mutually reinforcing way, the texts produce a consistent meaning and coherent whole. However, the texts varied in the actual order in which these three knowledge assemblages were employed. Texts also varied in how much space particular assemblages were given and how frequent the overall text switched between assemblages.

Although chapters or longer text sections frequently focused on one main purpose, such as establishing facts about aging by employing fact assemblages, texts still incorporated other knowledge assemblages in these sections as well. For instance, a booklet for aging drivers in Ontario (E) begins by mainly using fact assemblages, while then alternating with brief segments of evaluation and action assemblages. That is, the first three chapters of the booklet functioned to establish the overall problem. Mainly using fact assemblages, these chapters (“Strengths of Older Drivers”, “The Effects of getting Older”, “The Possible Effects of Drugs on Driving”, pp. 1-6) establish age-related loss of body and thus, of driving function, as an unquestionable and problematic fact, endangering safe driving. The following chapters, while emphasizing an overall call for action, draw upon all three knowledge assemblages together. For instance, the chapter “Personal Action Plan” (p.8) is structured in several subsections, each constructing a particular body function as crucial for driving (“Night Vision and Glare”, “Side Vision and Flexibility”, “Judging and Reacting”, “Concentration”, pp. 8-13). Each of these subsections (such as “Judging and Reacting”, p.9) begins with a brief sentence that repeats and summarizes a ‘fact’ established in previous chapters, using a fact assemblage (such as “Difficulty judging distance and slower reaction times can make it harder to deal with fast moving traffic”, p.11). After prompting aging drivers to recall a previously established fact, the text in the subsection calls upon them to ‘apply’ such facts to their own driving, by using evaluation and action assemblages. Self-reflective questions, a main evaluation
assemblage technique, are offered (such as “Do you find it hard to pull out in heavy traffic?”, p.11), and immediately addressed by providing a box of related “Tips”, a typical action assemblage technique (such as “Avoid heavy traffic and highway traffic”, p.11).

This particular structure of discursive techniques - employing a fact, evaluation and action assemblage in each smaller section - is continued in all sections of this chapter; for instance, the section entitled “Side Vision and Flexibility” (p.10) begins again by claiming a fact (“As we grow older... neck and trunk flexibility may make it harder to see things around us”), continues by invoking self-evaluation (“Do you find it hard to turn to check your blindspot?”) and ends in calling for a particular action that relates to and ‘solves’ the discussed problem (“Tips: Do regular flexibility exercises”). Yet, while the chapter described above, repeatedly employs all three knowledge assemblages in each of its subsections (i.e., fact-evaluation-action), the chapter’s general function in the overall booklet lies in instilling action (as expressed, for instance, in the chapter’s title “Personal Action Plan”). Nevertheless, each subsection reproduces and draws upon the broader discursive structure identified in the textual sample and its rationale.
Another example, which varies from the more common fact-evaluation-action order but reproduces a similar rationale, is the “Older and Wiser Driver” booklet (D). This booklet begins by calling for self-evaluation before providing ‘facts’ and calling for action. That is, after giving a general introduction to the problem (“Aging is inevitable: It happens to everyone”, title, p.1), the booklet offers a scientific-appearing self-rating form (pp. 2-5). This self-evaluation form, identified as an evaluation assemblage, calls upon aging drivers to rate their driving function. In this example, the evaluation assemblage used at the booklet’s beginning generated the whole structure of the overall booklet. Each of the self-rating form’s 15 statements (such as “Intersections bother me. There is too much to watch from all sides”, p.2), generates the title and topic for 15 related subsequent subsections. These subsections, in taking up an item of the previous evaluation assemblage (such as “Intersections bother me. There is too much to watch from all sides”, pp.8-9), mainly employ ‘fact’ and action assemblages; for instance, by explaining the significance of the measured statement, using fact assemblages (such as “Intersections are one of the more common site of collisions involving older drivers, especially left turns”,
p.8), or by calling for related actions, using action assemblages (such as “Plan your trips to avoid busy intersections or use them at less congested times ... you can sometimes make three right turns to avoid having to make a left turn”, p.9). Some sections also ‘weave in’ additional evaluation assemblages by providing supplementary self-reflective questions that invoke a deeper self-reflection with regard to the discussed problem (such as “What bothers you the most about intersections? Is it an inability to handle all information quickly enough? ... Do you find it difficult to turn the steering wheel because of arthritis or some other physical problem?”, pp. 8-9). These ‘added’ evaluation assemblages again build on and reproduce facts established in other sections of the overall text (such as, “Older drivers have trouble taking in information from several sources...a driver who is not physically fit may not have the strength, flexibility and coordination to operate a vehicle safely”p.10). They also function to construct specific actions as rational solutions to outlined problem (“Keep yourself physically fit and mentally stimulated”, p.11).

The above section, by describing two very different booklets, illustrates how each brochure was designed individually with regard to the actual order of assemblages and the incorporation of discursive techniques. Figure 25 and 26 provides a visual representation of both examples, illustrating their different actual order of employed knowledge assemblages. What is important here is that in both booklets, the discursive techniques employed (identified as three knowledge assemblages), function, build upon and relate to each other in the same way. That is, although the analyzed brochures vary with regard to their individual and actual structure (i.e., how they draw upon and combine these assemblages), the knowledge assemblages still function in the same logic and produce the same discursive content and rhetorical structure.
The next and last section in this chapter describes the effect that these three knowledge assemblages, representing specific sets of discursive techniques, constitute together.
5.3.1 Rhetorical structure: Overall narrative

By employing similar discursive techniques and connecting fact, evaluation and action assemblages in consistent ways, the analyzed texts join in generating a powerful overall rhetorical structure (see Figure 27, Rhetorical structure of texts) and narrative. The dominant narrative, consistently created and conveyed goes as follows:

The texts normalize aging as an inevitable, natural, and collective experience that all individuals are subjected to, as aging ‘happens’ to all individuals. While it is stressed that chronological age is not a good predictor of driving ability, aging subjects are positioned as being ‘at-risk’ to become unsafe drivers due to their declining aging bodies. This is achieved by constructing driving as a complex, fast-paced activity, which involves a subject’s full bodily capacities and control. These texts emphasize that, in order to avoid becoming a ‘risky’ driver who poses a risk to themselves and others, aging drivers need to stay in control over their aging bodies and driving. Therefore, aging drivers need to learn to assess and constantly monitor their ‘body and driving fitness’ in order to actively detect any age-related change in their bodies and to be able to become self-aware and ‘safe’ drivers. To do so, aging drivers must draw upon particular facts, associated with expert knowledges.

Self-aware subjects have the power to stay in control and keep themselves and others safe by constantly monitoring, becoming aware of and accounting for any changes. For instance, many texts suggest that aging subjects can optimize their bodies for the requirements of driving by living healthy lifestyles. In turn, aging drivers can also adapt their driving to their declining aging bodies by reducing driving complexity or by adapting their car. As well, constant self-monitoring, as well as seeking ‘check-ups’ and advice by experts is a basic requirement to stay in control.

However, the texts establish that driving cannot be adapted endlessly. Since it is only ‘natural’ that one day all driving comes to an end, the need for aging individuals to prepare for this inevitable outcome is emphasized. Ideal aging drivers are to take responsibility and withdraw from driving by their own doing. Non-ideal, that is, irresponsible, subjects need to be ‘helped’ by their families or specific policies to come to
this decision. As ideal subjects have pro-actively planned for their so-called ‘driving retirement’, they can succeed in gradually entering a non-driving ‘lifestyle’ and have no problems maintaining their mobility, active lifestyle and independence.

There are three pillars that make this narrative powerful. First, aging is ongoing, second, aging happens in individual bodies, affecting their function in a negative way, and third, aging is a transformative experience that individuals need to actively ‘adapt’ to and prepare for to maintain control. A visual representation that joins this narrative to the rhetorical structure is provided below (Figure 27, Rhetorical structure of texts):

*Figure 26: Rhetorical structure of texts*

The produced narrative, constructing the aging driver problem and the solutions to it as primarily located in individuals and as understandable through notions of risk, furthermore shapes a particular type of ideal aging driver subjectivity: one who possesses several characteristics and who engages in particular types of practices of the self. This
ideal driver subjectivity, shaped within the texts, its key characteristics, and the ideal practices this subjectivity is to engage in are described in the next chapter.
Chapter 6

6 Findings 2: Discursive effects - The ideal aging driver

In contrast to the previous chapter which described how the identified knowledge assemblages function and co-join in the texts’ construction of the overall narrative, this chapter describes the discursive effects of this construction. The chapter describes the ideal aging driver subjectivity that is constructed within the texts. While many subjectivities co-exist with regard to both aging, as well as driving, the analyzed texts explicitly privilege a risk-averse, ‘activated’ driver as the ideal driver. This exclusiveness is another powerful effect of the texts’ risk rationality. As detailed in the previous chapter, risks associated with aging and driving are constructed as ‘real’, calculable, and preventable. In turn, the rationale of the texts promotes that once one becomes aware of the risks, the only rational response is to protect oneself by actively engaging in practices that can ‘reduce’ such risks. Any other response, such as knowingly deciding not to engage in these ‘obviously’ risk-reducing practices, is viewed as unreasonable and irresponsible. Thus, for the aging driver, who has come to ‘know’ the identified risks and how to prevent them, there can be only one choice, that is, working towards minimizing risks and ‘staying’ a responsible and safe subject.

The chapter begins by outlining three key characteristics of this predominant ideal aging driver subjectivity and then describes key practices that aging drivers are called on to take up in order to work towards this idealized subjectivity. The chapter ends with an illustration of how the ideal aging driver subjectivity is contrasted with non-ideal subjectivities in ways that create a division between ‘good’ and ‘risky’ subjectivities, the former subjectivities able to govern themselves and the latter fail and become a risky ‘other’. In contrast to the previous chapter which described how the identified knowledge assemblages function and co-join in the texts’ construction and organization of the overall risk narrative, this chapter forefronts a significant discursive effect of this construction. That is, this chapter illustrates the forms of subjectivity that are constructed through this constructed risk narrative.
6.1 Becoming an ‘activated driver’: Key characteristics of ideal drivers

The ideal aging driver subjectivity constructed and promoted within the texts can be described as that of an “activated driver” (D, p.6). Being aware of and embracing a new risk position that inevitably accompanies age, ideal aging subjects ‘activate’ and mobilize themselves by taking on explicit responsibility for their ‘driving self’ and by engaging in specific practices. In fact, one text, as illustrated by the following text sequence, explicitly states that a key purpose of its existence is to empower aging individuals to transform themselves into activated drivers. The text also neatly provides a condensed description of what ‘makes’ up this idealized activated driver subjectivity. As activated drivers, ideal aging drivers are self-aware, responsible, and rational subjects, in control over and self-governing their bodies and driving for the sake of their safety and that of others:

One of the purposes of the self-rating form is to help you become, if you are not already, an ‘activated driver’. An activated driver is someone who assumes responsibility for his or her own driving skills and who self examines and compares his or her ability with the requirements for safe driving. Through knowledge and self awareness, you will understand what a safe driver is and will assume the responsibility to be a safe driver. On the other hand, you may decide that your driving poses a risk and decide to give up your driver’s licence and seek other forms of transportation (D, p.6).

As suggested by this text, they are three key characteristics of the ideal, activated aging driver: activated drivers are (i.) self-aware, (ii.) responsible and (iii.) decide and act rational. Self-awareness provides the possibility and potential to stay in control over one’s aging and risky body, and driving; a sense of responsibility instills the motivation and willingness to do so; and acting rationally, based on informed decisions, is the means through which one is able to stay in control over one’s at-risk self, body, driving and future. All three key characteristics join in producing ideal aging driver subjects, who are risk-averse and who fully recognize their at-risk position and strive to keep themselves and others ‘safe’. The next section describes the three key characteristics of the dominant ideal aging driver subjectivity, and illustrates the ways in which each characteristic is constructed in relation to risk.
6.1.1 Being self-aware: Knowing one’s driving self

A key characteristic of the dominant ideal aging driver subjectivity is self-awareness. Within the texts, self-awareness of the aging driver is equated with risk-awareness: ‘self-aware’ subjects are ‘aware’ of and perceive themselves as ‘at-risk’ subjects. The rationale is presented in a straightforward way: as fact knowledges have located and identified ‘risks’ to driving within the aging self (or, more precisely, within the aging body), becoming conscious of the self as aging and therefore as a potential risk to driving, is framed as a process of gaining self-awareness. Therefore, as the following texts sequences highlight, becoming aware of one’s abilities as ‘changing’ for the worse, is ‘key’; it enables one to stay in control over these changes and ensure safety:

Evidence shows that most aging drivers are aware of their changing ability (...)
The key to staying safe and limiting driving risks is self-awareness (X, p.15)

Being aware of our own abilities is key to road safety (our own as well as the safety of passengers and other drivers). (E, p.8)

Aging drivers can adjust their driving habits to cope safely with these changes, but to do this they must recognize their limitations, recognize unsafe driving practices and be aware of actions they can take to make their driving safer. Creating this awareness is the purpose of this booklet. (D, p.1)

Ideal aging subjects are conscious of themselves as ‘changing’; they aspire to ‘know themselves’ thoroughly so that they can stay in control over the changes within their individual body and driving ability. Ideal drivers, as self-aware subjects, possess self knowledge about how they age (e.g., they are aware of current and to-be-expected aging processes occurring in their bodies), about how they drive (e.g., they are wary of their driving skills, abilities, and behaviour), and about how they conduct themselves (e.g., they recognize risky behaviour and strive for safety). As illustrated in the following figure, which portrays snapshots from three brochures, the texts suggest that ideal drivers ‘know thyself’ thoroughly. They are ‘aware of their strength and limitations’, ‘pay attention’ to, and are ‘aware of their own changing abilities’. Even though such changes might not be noticeable in one’s ‘daily live in general’, ideal drivers, ‘knowing their own level of ability’, are able to ‘make good decisions’:
Becoming and being a self-aware driver is shaped as a cognitive process. Ideal aging drivers are ‘using their good mind’: they ‘recognize’ that they are aging, ‘understand’, and ‘think about’ themselves. Becoming a self-aware driver means to discover and recognize oneself in a certain way; it means to learn something new about one’s self and driving through the lens of fact knowledge. For instance, aging drivers are called to look at and ‘think about’ the ‘physical changes’ they will undergo ‘as they get older’:

This part of the Booklet helps you to think about some of the most important physical changes (vision, hearing, movement and reaction time) that can affect driving ability as we get older. (E, p.3)

By engaging in self-reflection, facilitated by fact knowledge, ideal subjects gain understanding of who they are and what they ‘really’ do when they drive. They become aware of themselves as ‘physically changing’ and they become aware that they exercise and coordinate complex body functions when they are driving. Self-awareness, within the texts, allows accessing another level of reality and ‘truth’ by becoming knowledgeable about one’s self, body, and actions. For instance, as illustrated in the next text sequence,
by learning and ‘thinking’ about the complex inner process materializing in one’s body when one is driving, ideal drivers access a more ‘true’ and ‘correct’ picture of what is ‘really’ happening ‘every time they get behind the wheel of a car’. The text suggests that ‘through knowledge and self-awareness’, one can protect and conduct oneself better, making ‘better informed’, and thus ‘safer’, decisions:

Think about what tasks you do every time you get behind the wheel of a car. You must coordinate the actions of your hands, feet, eyes, ears, and body movements. At the same time, you must decide how to react to what you see, hear, and feel in relation to other cars and drivers, traffic signs and signals, conditions of the highway, and the performance of your car. (...) Through knowledge and self-awareness, you can make better informed decisions about when to get behind the wheel and when to seek other forms of transportation. (U, p.1)

As ideal aging drivers have become knowledgeable about themselves, they have come to ‘know’ themselves and to relate to themselves and their bodies in a certain way, which is, as changing and in need of continuous self-monitoring. Thus, being self-aware is constructed as working towards ‘knowing’ what is happening within one’s body and with regard to one’s driving by ‘stepping outside’ the self and by monitoring one’s actions to be able to stay in control over them. Self-aware drivers have transformed themselves into ‘conscious’ drivers. Since the texts imply that aging subjects might experience themselves as ‘experienced’ drivers who “have a large number of kilometers ‘under their belts’” (X, p.1), they might approach driving as an embodied, taken-for granted activity and not give it much ‘thought’ anymore. However, as highlighted in the following text sequence, aging drivers cannot rely on their bodies in the same ways as before; they need to become aware of ‘the difference’ they have to face now. Consequently, they need to disembody their driving and become self-aware drivers, conscious and informed of their changed risk position:

Experience and good judgment may make you a better driver. However, if you were aggressive and hostile on the road when young, you are likely to be much the same today. The difference is that now, because of decreased driving skills, you may not have the ability to recover from those dangerous highway situations that arise out of aggression and hostility (E, p.11).

Self-awareness is also an important quality to work towards as the texts convey that the more one ages, the more one’s driving body is at risk of getting out of ‘shape’ and out of
control. This, convey the texts, can be countered by heightened self-awareness. As one is expected to progressively undergo more changes in one’s body and driving, being self-aware also means to be alert and vigilantly watch oneself. Only drivers who are fully aware - and ‘stay’ aware - of themselves are able to control and keep themselves and others safe; therefore, ‘having a good look’ at and monitoring one’s driving, as illustrated in the next text sequence, is an important self practice and something that self-aware drivers continuously engage in:

As you get older, you will experience more changes. You need to continue to be aware of what you can do to help yourself to drive safely. The more difficulties that apply to you, the more important it is that you take a good look at your driving and consider talking with your doctor, family and friends. (E, p.13)

Awareness, within the texts, is constructed by its existence or lack thereof, namely, aging drivers are either self-aware and thus can work towards ‘remaining’ safe drivers, or they are ‘unaware’ and become inevitably ‘risky’ drivers. This construction places aging drivers in a tricky position: if they do not accept and agree with the ‘facts’ and ‘truth’ they have come ‘aware of’, they are constructed as being ‘in denial’ or as having a ‘false’ consciousness about themselves as drivers (such as overestimating their abilities, trusting their ‘feelings’, or ‘falsely’ assuming that a long driving experience can make up for age-related differences to ‘normal’ drivers). At worst, non-ideal subjects, despite knowing the ‘facts’, actively resist becoming conscious and self-aware drivers. While thoroughly knowing one’s ‘driving self’ and its limitations is a key characteristic of ideal drivers, ‘denial’ of one’s ‘diminishing skills’ is one’s ‘greatest danger’. Not being self-aware ‘keeps’ one from the ability and possibility of ‘correcting dangerous habits’ and can ‘lead to tragedy’:

Denial of diminishing skills is the older driver's greatest danger. Denial results in a continuation of the most dangerous driving habits and keeps the driver from learning new and better ways to drive. Without correction, dangerous driving habits can lead to tragedy (D, p.19).

Self-awareness is also closely related to the next key characteristic of ideal aging drivers, that is, responsibility. Since self-aware drivers have become conscious about the risks their aging and changing bodies create in driving, they are, as well, aware of the particular responsibility that arises out of their risky bodies. As a result, self-aware aging
subjects take up the responsibility to govern their bodies and their driving in order to keep themselves and others ‘safe’.

### 6.1.2 Being responsible: Keeping oneself and others safe

A second key characteristic ascribed to the ideal aging driver subjectivity is responsibility. Ideal aging drivers are constructed as ‘responsible’ individuals. The texts shape ‘responsibility’ primarily as the ability and willingness to ‘keep’ oneself and others ‘safe’ – in a simple physical sense, but also, for instance, in ensuring one’s (and others’) future well-being by staying independent, mobile, and not relying on the help of others.

Responsibility, like self-awareness, differentiates ‘safe’ from ‘unsafe’ drivers and, thus, ideal aging subjects from their ‘risky others’. The texts imply that it is not age ‘alone’ that undermines one’s ability to ‘remain’ a safe driver. Rather, it is lack of self-awareness and lack of responsibility which impedes one’s ability to make ‘safe’ decisions and to take responsible action that ‘keeps one and other road users safe’ when one is driving:

> Age alone does not determine a person’s ability to remain a safe driver. Many older adults continue to be safe drivers and make decisions to avoid driving situations in which they feel less confident (H, p.2).

> Growing older doesn’t mean you have to give up driving. No one loses his or her driver’s licence because of age. Drivers should learn to recognize individual changes and adjust their driving habits. This brochure (…) suggests steps that can be taken to keep you and other road users safe while you’re behind the wheel (A, p.1).

Ideal aging drivers are capable and willing to be accountable for their driving; they are able to govern themselves responsibly, for example by ‘balancing’ their own well-being with that of others. The responsibility to not become a risk to others also implies not becoming dependent or relying on others. As illustrated in the following quotation, ideal subjects understand that autonomy and auto-mobility need to be exercised responsibly; they assent to the fact that ‘there must be a balance between one’s mobility, and one’s own and others’ right to safety’:

> So, while almost everyone concerned with traffic safety wants to keep older drivers on the highways as long as they can drive safely, we must recognize that driving is a privilege, not a right. There must be a balance between the
individual’s mobility, and the individual’s and public’s right to expect a reasonable level of road safety (D, p.1).

Ideal aging drivers, as emphasized in the above quotation, recognize ‘that driving is a privilege and not a right’. That is, they recognize that their auto-mobility is not to be taken-for-granted or a ‘complimentary ticket’, but rather a special opportunity which can only be granted to subjects who can take the responsibility that comes with it. As illustrated in the following text sequence, ideal drivers, even though they might desire otherwise, will choose ‘the responsible thing to do’:

While the tips in this Booklet may help improve your driving safety and comfort, there comes a time when we all must consider limiting our driving or retiring from driving. It’s the responsible thing to do. Often, this is not an easy decision. We may use our car for shopping, banking, appointments as well as social and recreation activities. We do not want to burden others and value the independence driving gives us (E, p.21).

Whereas it is implied that not endangering others is a collective obligation expected of all drivers, the texts assign aging drivers an ‘extra’ responsibility for collective safety. Within the texts, this added responsibility arises out of the aging driver’s new risk position, identified by neutral fact knowledge and localized within the aging individual. As the driver’s aging body is constructed as ‘less’ reliable and as endangering the driver’s ability to control his or her vehicle safely, aging drivers need to be ‘more’ responsible than ‘normal’ drivers. Therefore, ideal aging drivers make their responsibility for safety a ‘personal’ mission and obligation and embrace their responsibility to ensure road safety:

This brochure outlines some warning signs that could lead to unsafe driving and suggest steps that can be taken to keep you and other road users safe while you’re behind the wheel. Ontario’s roads are among the safest in North America so it’s important that every road user makes road safety a personal responsibility (A, p.1).

Road safety.
It starts with you (F, p.7).

Coming to the realization that you can no longer drive requires careful thought, because every individual has a personal responsibility to road safety (B, p.8).

The ‘personal’ responsibility assigned to aging drivers is shaped as one that has to be actively ‘taken’. While one might have thought of oneself already as a responsible and safe driver, ‘taking’ responsibility when one ages, as in the example text sequences
below, means striving to become an even ‘safe-er’ driver. By engaging in certain practices, which help to keep oneself and others safe, ideal subjects ‘take’, ‘assume’, ‘choose’, and ‘own up to’ their objectively identified ‘extra’ responsibility:

Taking responsibility means striving to become a safer driver, changing your habits or, if necessary, deciding to retire from driving and use other forms of transportation (R, p.1).

Be honest with yourself: if you are a danger on the road, take responsibility and either improve your skills or stop driving (L, p.16).

Choose to be a responsible driver (D, p.13).

A crucial first step in owning up to behind-the-wheel safety, a self-assessment prompts the driver not only to recognize and correct possible shortcomings, but also to plan ahead for inevitable effects of aging (K, p.8).

Taking responsibility, within the texts, is constructed not only as involving risk-reducing practices to optimize current safety, but also as responsibly shaping the conditions of one’s future. Ideal aging drivers take responsibility for their future own mobility, rather than relying on or expecting this from others. They, for instance, ensure that they will be able ‘to go where they need to go’ safely and ensure keeping their driving body as healthy and functional as possible. Responsible drivers are constructed as taking good care of themselves and others, by engaging in practices that are constructed as able to minimize risks. They ‘manage’ their bodies and driving future and ensure that they have enough knowledge to manage their aging body so that it does not become a risky body. However, one’s future mobility, quality of life, independence, social well-being, and one’s possibilities to remain active, are implicitly constructed as being ‘at-risk’ if subjects do not also actively prepare for an ultimately non-driving future.

The ultimate act of the responsible aging driver is voluntarily and autonomously withdrawing from driving when one cannot ‘guarantee’ one’s own and others’ safety anymore:

You should ask yourself the following question: am I still able to get behind the wheel without risking an accident that could injure me or someone else who crosses my path? If you can no longer answer yes to this question, you will have

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22 described in later sections of this chapter
to consider other options for getting around. This is obviously a difficult decision to make. That’s why it’s important to prepare for the prospect by contemplating the likelihood well in advance (B, p.8).

Ideal aging drivers can make this difficult decision, because they have responsibly ‘contemplated’ and prepared for this decision ‘well in advance’.

As illustrated, being responsible is constructed as being able to conduct oneself, one’s body and one’s driving, in risk-averse and future-oriented ways. Responsibility is also closely related to a third key characteristic of the dominant ideal driver subjectivity. As responsible subjects, ideal aging drivers feel morally obligated to make ‘right’ and ‘good’ choices, based on a rational and informed process that foresees the consequences of one’s choices. Rational choices, based on a particular type of reasoning, are framed as responsible (and vice versa), excluding other possibilities to act and decide.

6.1.3 Being rational: Calculating the effects of one’s decisions and taking informed action

A third key characteristic of the ideal driver subjectivity as constructed within the analyzed texts is that of being rational. Being rational, within the texts, means calculating and having the consequences of one’s actions in mind, so that one can make ‘good’, safe choices. Ideal aging drivers act based on reason and information, they ‘think’ before they act; they understand that their choices and decisions are directly linked to the outcomes of their actions. Ideal subjects use their “good mind and wisdom” (X, p.2), they ‘recognize’, ‘think’, ‘consider’, ‘understand’, and ‘examine’ all their options when making choices or deciding for actions (e.g., “examine all the alternatives... available” B, p.8). They base what they do on rational calculations and motives, such as ‘enhancing’ safety, ‘extending’ driving years, and ‘increasing’ one’s future mobility choices. Rational individuals are capable of acting in a strategic, future-oriented fashion; they understand that their decisions are linked to the outcomes of their actions.

The texts construct ideal aging individuals as thoughtful decision makers, who employ a particular mode of rational thought in their decision-making and as a basis of their action. That is, rational individuals do not decide and act impulsively, based on what they ‘feel’ like or in relation to pleasure. Rather, they, carefully weigh their options, considering
pros and cons as, benefits and risks. In their decisions, they imagine their future and how their decisions will affect their options, conditions and possibilities to live and be active.

Because they act with the goal of maximizing outcomes and reducing negative consequences, ideal subjects make decisions based on ‘evidence’, provided by fact knowledge. For instance, when informed that “evidence shows physical activity can lessen some of the impact of conditions such as arthritis and osteoporosis” (X, p.14), rational subjects will take up practices to stay in ‘shape’ and improve their health. They value and continually strive to gain knowledge, as knowledge enables ‘better’ action and enhances possibilities and choices. They seek to ‘learn’, as ‘learning’ creates advantages, such as knowing how to compensate for one’s aging body, or knowing strategies to maximize safety. As well, they aspire to ‘refresh’ and ‘update’ their knowledge, knowing that knowledge can compensate for personal shortcomings. Acting based on reason, informed by expert knowledge, ideal subjects ‘apply good judgement’ and a ‘proactive approach’ to driving:

ACT: Apply good judgement to eliminate unsafe acts and unsafe conditions (F, p.3).

Taking a proactive approach to driving can make a real difference. (E, p.14).

Rational subjects are thus constructed as able to ‘conquer’ natural processes, such as those occurring to the aging body, through gathering information and ‘smart’ planning. They ‘maximize’ their conditions and options by becoming informed:

Know your vehicle’s safety features so that you can use them for maximum protection (P, p.1).

Ideal subjects view and approach their life as a matter of choice. As they concur that “it’s choice - not chance - that determines your destiny” (X, p.15), they strive to identify and make the ‘right’ and ‘best’ choices, that is, the ones which shape their future most beneficially and predictably and which allow them to stay in control. Instead of being directed by feelings or emotions, ideal individuals govern themselves based on fact knowledge and calculation. They are willing and able to ‘invest’ time and effort to overcome their possibly risky preferences. For instance, while aging drivers might ‘feel’ safer in driving a familiar car, ideal drivers, understand that they can ‘add’ safety by
choosing a car which better ‘fits’ their changing aging body and risk position. They know that it is ‘worth’ to ‘invest’ in a safe future by consciously taking up practices, which have been identified as enhancing safety, even though such practices might ‘feel’ more time consuming at first:

Often, older drivers feel safer in a familiar car. Nevertheless, a car with up-to-date features and a comfortable fit will give the driver an added margin of safety. That’s worth the time invested in practicing and adjusting to a new vehicle (K, p.12).

Rational individuals, as illustrated in the next text sequences, are motivated and can motivate themselves by imagining financial or other future benefits, such as getting an ‘insurance discount’, or by ‘buying’ themselves ‘valuable seconds of reaction time’:

Depending on the state and the insurance provider, completing such [driving refresher] courses may qualify the older driver for an insurance discount or reduce infraction points on his or her license. That alone may motivate drivers to sign up (K, p.14).

One area in which you have total control is your decision to give driving your full attention. Give driving the attention it deserves and you will buy yourself valuable seconds of reaction time in an emergency (D, p.12).

Ideal aging drivers are able to control and overcome their emotions, feelings, and habits. ‘Using their mind’ they are able to ‘recognize’ their feelings and take control of them. As in the next text sequence, ideal subjects ‘know’ that they can overcome their emotions and find informed solutions:

Some people may deny the fact that they are no longer safe drivers. Others may feel angry or depressed. While these feels are normal, it is good to know that other seniors have limited their driving or have retired from driving completely successfully by adapting their lifestyle and you can too (E, p.22).

Ideal drivers are also able to convince themselves to take up practices that can increase safety, even though ‘risky’ actions and decisions might appear, at first glance, more appealing, enjoyable or convenient. Ideal subjects, as illustrated in the next text sequences, are able to master themselves and act rationally:

One’s tolerance for alcohol decreases steadily with age... Convince yourself that the only safe action in not to drink alcoholic beverages at all if you intend to drive, and to refuse to ride with anyone who has been drinking (L, p.13).
Instead of making a left turn to a destination, drive past the intersection and make three right turns around the block to get to the same spot. *It’s a little more time consuming, but a lot safer* (K, p.15).

Rational subjects engage in practices that ‘best’ maximize their health, financial, and social well-being. For instance, as illustrated in the next text example, aging drivers, ‘thinking realistically’, ‘keep in mind’ that ‘good health practices’ relate directly to their individual future. Thus, they take rational ‘command’ of their ‘habits’ and ‘lifestyle’ to improve their personal health and driving ability:

**You can stay informed by following these steps:**

- *Think realistically* about *how much control you have* and want in terms of health habits as they relate to your life in general and to your driving. *Learn more* about the relationships between good health practices and *how they can help you drive safely longer*. *Keep in mind* that the slowness that comes with aging *can be deterred or overcome* by motivation, regular exercise and practice.

- *Take as much control as you can* of *your health habits and lifestyle*, recognizing the obvious connection between *command of personal health* and *skill in driving* (E, p.16).

Ideal drivers, based on being rational, will take up practices identified by experts as ‘good’ lifestyles. As illustrated in the text sequence below, they understand that the more they ‘know’, they better they can shape what they do:

- *Understand* the *value* of nutrition, exercise, medical check-ups and the effects of medications, drugs and alcohol. Your doctor can give you *information* about all of these areas and tell you *where to get more information* (E, pp.16-17).

Rational individuals, as idealized in the texts have foresight. They are not living carelessly ‘in the moment’. Instead, ideal aging drivers think and plan ‘ahead’, not only driven out of responsibility (such as to avoid becoming a burden to others), but also to shape their future living conditions in the best possible way. As they are rational and informed subjects, they are capable of foreseeing and comprehending the long-term consequences of their behaviour and their being. For instance, ideal aging drivers are aware and informed that if they are not ‘keeping’ in shape, they might lose their driving fitness earlier. As well, they are conscious that moving into an area with good
transportation options might make the inevitable decision to give up driving ‘easier’.

Thus, rational individuals are pro-active and have foresight, they ‘plan’ ahead, and act in ‘strategic’ ways. They understand that bigger ‘blueprints’ enhance one’s ability to be ‘strategic’ and thus, have long-term goals and make plans that facilitate achieving them. As illustrated previously in the action knowledge assemblage, ideal drivers create ‘lists’, and ‘plans’ that help to keep one’s future in mind in one’s present decisions and doing.

As risks within the rationale of the texts are only constructed as the potential and probability for harm, danger, and negatives, subjects can only ‘lose’ by taking risks. Only by avoiding many risks as possible, can one ‘win’, that is, one can maximize safety, which is shaped as the most significant, valuable and desirable good. As risks are constructed as something negative, taking risks is dominantly constructed as irrational and negative behaviour;

Sometimes, an older driver’s fear of dependence overrides your caring, reasonable persuasion and his or her better judgement. Other times, the older driver stubbornly denies having any problems (K, p.6).

As illustrated in the previous section of this chapter, ideal activated drivers are self-aware, responsible, and rational risk-averse subjects. Their ability to reduce ‘their’ risk and to stay in control over their and others’ ‘safety’, is, as stated in the text sequence below, gained through ‘fact’ knowledge and self-awareness; it is enacted by rationally deciding for and responsibly taking up practices that ‘help’ to ‘adapt’ one’s driving to one’s new risk position:

**What can you do to reduce your risk?**

Awareness of the changes we go through as we age and of the changes in our driving environment is key to a long, safe driving career. A desire and the ability to adapt to those changes can help us continue to drive safely (P, p.1, bold in original).

Since they are self-aware subjects, ideal drivers understand themselves as being at risk of becoming a risk, which they responsibly and rationally aim to avoid. They do so by engaging in several ideal practices which take care of their aging bodies, as well as of their driving. These practices are described in the next section.
6.2 Becoming active: Ideal practices

Activated drivers work towards taking care of their at-risk selves in order to avoid becoming a ‘risky’ self. As the main risk is constructed as losing control over one’s aging body, and as a result, over one’s driving, activated aging drivers engage in practices that allow them to stay in control, such as by monitoring and optimizing their body and driving. The texts forward particular practices of the self, related to governing one’s aging body and governing one’s driving, as reflective of, and ways to work towards being an ‘activated driver’. These practices, summarized in Figure 33, are described in the next section.

Table 4: Ideal practices of the self

<table>
<thead>
<tr>
<th>Site to act upon</th>
<th>Practices of the self</th>
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| Body             | • monitoring the body and its intakes  
|                  | • maintaining the body by working on it  
|                  | • maximizing the body by adopting a healthy lifestyle  |
| Driving          | • upgrading the driving knowledge and car  
|                  | • adapting driving and changing ‘driving habits’  
|                  | • planning for driving retirement  
|                  | • withdrawing the self from driving in time  |

6.2.1 Taking care of one’s aging and driving body: Ideal body practices

Since the texts render the aging body as at-risk of getting out of a driver’s control due to a ‘natural’ and ongoing process which slowly erodes driving ability, ideal subjects must take conscious and active control over their bodies in order to ‘stay’ safe. They are to do so by engaging in a number of body practices constructed as monitoring, maintaining and improving one’s aging body and thus, one’s driving ‘fitness’. Texts, for instance, call
upon aging drivers to become active and to take care of their body so that they are able to ‘maintain’ their ‘driving fitness’:

In order to maintain fitness for driving, it is important to:

- Have regular medical, eye and hearing check ups
- Care for our bodies (eat well, get enough sleep)
- Stay physically active
- Stay mentally active
- Be aware of the effects of drugs and alcohol

Regular check ups, including review of medications, are necessary to catch and treat any medical problems. Good nutrition, getting enough sleep and staying mentally active (reading, doing crossword puzzles or playing cards) also helps us concentrate while driving (E, p.8).

In order to maintain bodies ‘fit’ for driving as long as possible, aging drivers ideally engage in three types of practices. These practices can be summarized as: (i.) monitoring one’s body and its intakes; (ii.) ‘maintaining’ one’s body by working on it; and (iii.) ‘maximizing’ one’s body by adopting a healthy lifestyle.

**Monitoring one’s body and its intakes**

Ideal and activated aging drivers are depicted as engaging in carefully ‘watching’ and assessing their bodies; they carefully and regularly monitor their aging body and its intakes. As already illustrated within the evaluation knowledge format, one way to do so involves monitoring one’s ‘driving fitness’ by drawing upon expert information, such as by checking oneself against lists of warning signs or by using self-assessments. However, since “it is easy to ‘overlook’ the effects of aging” (X, p.8), ideal aging drivers engage the ‘eyes of others’ when monitoring their at-risk, aging bodies and, thus, their driving fitness.

Family members and friends, for instance, provide a ‘valuable source of information’ about any changes in one’s driving skills assumed to be caused by an aging body, as they can provide information about one’s current and previous driving. Therefore, ideal drivers ask others to observe their driving; they value the ‘critical’ gaze of others and ‘keep an open mind’ to any concerns or criticism from others:
If you have heard such [critical] comments, you may feel that the critics are worse drivers than you or that they are generally afraid in certain traffic situations, no matter who is driving. It is difficult to accept criticism, but it can be a valuable source of information about your driving skills (...)

- Listen to the comments of those concerned about your driving and keep an open mind. Be sure that you are not dismissing the value of these comments out of denial (D, p.17).

It’s hard to hear things you may consider as criticism – particularly from your children, spouse or other family members. (...) As hard as it is, it’s important to listen to others’ concerns so that you can try to improve your driving, avoid crashes and drive safely. (...)

□ Listen to their concerns. Most likely, their comments come from a genuine concern for your safety, your passenger’s safety and the safety of others on the road. Make sure you don’t just dismiss their concerns (N, p.3),

However, ideal subjects are aware that such ways of monitoring one’s body and driving, although important, cannot replace a regular, objective and professional expert assessment. Objective and ‘true’ knowledge about one’s risk status can only be achieved by monitoring one’s body with regular medical exams. Such exams, carried out by experts, are able to ‘catch’, ‘detect’, ‘reveal’, and ‘pick up’ body changes that pose a risk to safe driving. As illustrated in the following snapshot, ideal aging drivers ‘manage’ the ‘normal’ age-related changes in their bodies with ‘regular medical exams’; they seek regular body ‘check-ups’ by a ‘body expert’:

Figure 28: Example monitoring one’s body (snapshot text X, p.14)
Note also, how the cartoon-like drawing attached to the written text represents a medical expert with an examination headlight and an assumed checklist, invitingly holding a stethoscope to the reader who is ready for ‘inspection’. Scheduling regular medical exams is depicted as a key practice in monitoring one’s aging body, because age-related functional changes are suggested as ongoing and potentially lingering; they might happen unbeknownst to the driver and become underestimated in their ‘real’ effect on driving. Therefore, ideal drivers integrate professional body ‘check-ups’ into their everyday life, they ensure that they ‘regularly’ visit ‘their’ doctors, even if they (i.e., the driver) might not experience or identify any problems:

*Consult your physician or health care professional regularly to help resolve any health issues that can arise (B, p.6).*

Gradual hearing loss increases with age. *Regular hearing exams can pick up* these problems (E, p.4).

- have *regular medical checkups* (G, p.6).

*Have your hearing and eyesight checked regularly.* Peripheral vision and depth perception tend to decline over the years (A, p.3).

When ‘bringing’ their aging body to ‘inspection’ by a ‘body expert’ (such as a physician, optometrist, audiologist, etc.), ideal aging drivers are rendered as taking up responsibility for two things: they pro-actively inform the expert of what the ‘check-up’ is sought for and they ensure that they will follow the given advice, regardless how they might feel about it. Ideal drivers are counseled to explicitly inform their doctor that they seek an assessment of their body as a ‘driving body’; they need to ‘tell their doctor’ that they ‘want to ensure to remain a safe driver’ and to carefully ‘report’ any symptoms that might affect driving ability:

*Ensure that you have regular examinations by an eye doctor. Tell your doctor that you want to ensure that you remain a safe driver (N, p.4).*

*Ensure that you have regular examinations by an eye doctor. Ask your doctor if you have any medical conditions that might affect your vision and your ability to drive safely (N, p.5).*

- **Report** the following symptoms to your doctor:
  - vision changes, unexplained dizziness or fainting spells
  - frequent, chronic or severe pain (A, p.3).
A similar text sequence calls upon families of aging drivers to ensure that the aging driver calls the medical expert’s attention to driving. The text suggests ‘encouraging’ the aging driver to actively inform the examiner that the ‘check-up’ is sought ‘specifically’ for driving-related body function. Having such information enables the expert to ‘specifically test for and identify’ driving related problems:

**Schedule regular check-ups and eye exams.**

A complete medical exam can reveal specific physical conditions that affect driving. For example, qualified medical personnel can check an older driver’s decision-making skills, reaction time, muscle strength, and joint flexibility. (…) Gently encourage the older driver to mention driving-related vision to his or her examiner. Then, the eye care professional can specifically test for and identify those problems such as glare sensitivity, loss of peripheral vision, and poor night vision. That will lead to the best prescription for driving, a ‘daytime only’ driving restriction, or treatment for glaucoma, cataracts, and other diseases (K, pp.11-12).

Responsible aging subjects are aware that providing explicit information of what to ‘test for’ improves the quality of subsequent advice (“that will lead to the best prescription for driving”). Moreover, pro-actively bringing up the issue of driving within a medical examination also positions doctors to give advice about driving based on profound ‘fact’ knowledge and medical authority. Therefore, ideal and informed aging drivers also ensure that they accept and ‘follow’ the given advice, even though they might feel differently about their driving ability:

**I ask my doctor if any medical condition I have could affect my ability to drive.**

“Always” is the best response to this statement. (…) Ask your doctor if you can drive safely while you are dealing with an injury, illness, or any other medical condition. Let him or her know if a medical condition you have is changing.

- Respect your doctor’s advice if he or she suggests you change your driving habits or stop driving – even if it’s only for a short time (N, p.7).

You have far more control than you might think. (…) regular visits to the doctor (and following the doctor’s advice) can help you keep driving longer and extend your life (D, p.16).

*Make sure you follow* your eye doctor’s advice. Change your eye glass prescription when advised and use your glasses when necessary (N, p.5).
Ideal aging subjects not only continuously watch their aging bodies and keep informed by regularly engaging in medical ‘check ups’. They, also carefully monitor their bodies with regard to their ‘intakes’, such as medication and alcohol. Being aware of having a generally ‘less efficient’ aging body, which ‘takes longer’ to ‘get rid of’ medication or alcohol, might need ‘more drugs’, and might have ‘altered responses’ due to additional ‘medical problems’, ideal subjects control these additional risks to their driving ability. They are informed that they need to take ‘more’ care of their ‘body intakes’ than subjects with implicitly ‘normal’ bodies:

Older Adults Need to be Very Careful. Why?

- Older adults tend to take more drugs
- The risk of side effects and interactions increase with the number of drugs taken
- With age, our bodies react differently. It takes longer for the body to break down or get rid of a drug
- This is also true of alcohol. While people tend to drink less alcohol as they get older, it takes fewer drinks to impair our driving. Alcohol, mixed with certain drugs, can be very dangerous
- Other factors, such as medical problems, can alter the body’s response to alcohol and certain drugs (E, p.7).

As they cannot rely on their aging bodies, ideal aging drivers responsibly engage in practices that help to control risky side effects of medication and alcohol. For instance, they ensure that they have as much information as possible about their individual medication and how it might affect their ability to drive safely. In monitoring their ‘body intakes’ with regard to driving risk, ideal drivers, watchfully ‘read all labels and instructions’, are ‘careful’ with self-chosen ‘over-the-counter medications’, and actively ‘ask’ and ‘check’ their medication with doctors and pharmacists:

- make sure you know how your medications might affect your ability to drive safely (H, p.6).

Ensure that the combination of your medications does not impair your driving skills. Ask your doctor what the side effects of a prescribed medication might be, particularly as they apply to driving, and what, if anything, you can do to counter them. (...) Read all labels and instructions on prescriptions and over-the-counter drugs to determine side effects and their relationship to whether you should drive. (...) Remember that combinations of medicines can magnify their effects beyond
the individual warnings. *Ask your pharmacist to look for dangerous drug interactions.* (D, pp.15-16).

- **Check with your doctor or pharmacist** to make sure any current and new medications will not negatively affect your ability to drive.
- **Be careful with** over-the-counter medications and combining medications that can also impair your driving (A, p.3).

Monitoring one’s intakes also involves the duty to organize all information about one’s medication and make it available to the review of experts. Ideal aging drivers, for instance, are to ‘keep an up-to-date list of all medications they are taking’, ‘bring all their medications with them when they go to the doctor’, or choose to ‘rely on a single source for prescriptions’. In this way, they ensure that ‘medication experts’ have all information needed to make an accurate assessment about potential risks of drug interactions and with regard to driving:

**Medication Action List**

All older adults should keep an up-to-date list of all medications (both prescription and non-prescription) they are taking. (...) Keep a copy of this list with you in your purse or wallet and in the glove compartment of your car. Take this list when you see your doctor and pharmacist and review it with them. If you have any negative side effects, particularly when starting a new drug, tell your doctor and pharmacist (E, p.7).

If you have more than one doctor prescribing medications, make sure all of them know about all the drugs you are taking, both prescribed and over-the-counter. Bring all your medicines with you when you go to the doctor (D, p.15)

The driver’s pharmacist can help, too. Even if your older driver takes medications prescribed by more than one doctor, he or she should rely on a single source for prescriptions. Many pharmacies keep computerized patient records that automatically warn of dangerous drug combinations (K, pp.11-12).

Ideal drivers also engage in other ‘safe practices’ which help to control body function by monitoring body intakes. For instance, ideal aging drivers monitor when and where they consume alcohol as, for aging drivers, the ‘only safe practice is to avoid alcohol completely’ when driving:

*The only safe practice is to avoid alcohol completely* if there is any chance that you will have to drive. Tolerance for alcohol decreases steadily with age. Older people are also less efficient at ridding their systems of alcohol. Food, mood, fatigue, medication, general health, weight and size of body can all make a
difference in predicting overall effect. (...) Accept that the only safe action is not to drink alcoholic beverages at all if you intend to drive and to refuse to ride with anyone who has been drinking (D, p.15).

Alcohol also has a negative impact on your ability to drive safely and, taken with other medications, it can significantly impair your ability to drive. It’s against the law to drive while you are impaired by drugs (even those prescribed by your doctor) and/or alcohol. This is an area where you have a great deal of control in ensuring your own safety on the road. (...) Avoid alcohol completely if you plan to drive and refuse to drive with anyone who has been drinking (N, pp.6-7).

Thus, engagement in practices that involve monitoring one’s body and its intakes is constructed as enabling ideal aging drivers to stay in control of their aging body’s functional stage. A second type of practices is also constructed as offering control over one’s aging body. These practices, summarized as ‘maintaining’ one’s body by working on it, are depicted as means to defy age-related body changes that present risks to driving.

‘Maintaining’ one’s body by working on it

Practices related to maintaining one’s body are suggested as powerful means to actively take care of one’s body and, in turn, one’s driving ability. The texts promote that ideal drivers “keep in good driving shape” (X, p.14) by consciously exercising body functions required for driving, but are at risk of weakening and get ‘out of shape’ due to aging processes. Ideal aging drivers, as illustrated in the texts below, aspire to ‘reduce’ and ‘overcome’ negative aging effects by rationally choosing and motivating themselves to take up an ‘exercise routine’. By engaging in such routine, they will ‘improve’ their aging bodies, keep them ‘in shape’, and thus, ‘drive better’:

True, this booklet has emphasized the reduction in driving skills that come with age. But even though research points to changes in the central nervous system as the culprits, you can reduce the effect with increased motivation to improve and stay in shape. Exercise reduces the extent of slowing, and extended exercise may eliminate it completely. (...) Keep in mind that the slowness that comes with aging can be deterred or overcome by motivation, regular exercise and practice (D, p.16).
Based on the motivation that ‘it is never too late to begin’ and calculating the benefits to be derived, ideal drivers are constructed as making regular exercise part of their routine in order to change their risk position for the better (i.e., ‘preventing falls and driving better’). Moreover, texts convey that ‘evidence shows’ that engaging in the ‘right’ leisure activities, such as ‘gardening, walking, golfing’ offers another valuable means of risk reduction. Therefore, rational individuals wisely chose what they do in their leisure time and engage in ‘physical activity’, suggested as beneficial in reducing age-related risks to driving:

Driving is a physical activity. It takes muscle strength in your arms and legs to accelerate, brake and steer. Flexibility is required (…) when lane changing. Evidence shows physical activity can lessen some of the impact of conditions such as arthritis and osteoporosis. Here are some tips to keep in good driving shape:

- Stay active by walking, gardening, golfing etc. to help improve muscular strength and range of motion along with joint flexibility (X, p.14).

- Under supervision, exercise to maintain or increase the flexibility of your joints and your muscular strength. Gardening, golf, tennis and other sports can help keep you in good physical shape (D, p.11).

The texts also suggest calling in experts for advice on and monitoring exercising. Ideal aging drivers seek advice about exercising from body and safety experts, and take up training programs specifically recommended or designed for reducing age-related risks to driving ‘problems’ (such as loss of flexibility):

- Your doctor can recommend an exercise program to improve flexibility and maintain strength, which can help you stay behind the wheel longer (A, p.3).

Your driver’s physician can suggest an exercise routine to maintain strength, flexibility, and general well-being. The AAA foundation for Traffic Safety also publishes the brochure, A Flexibility Fitness Training Package for Improving
Older Driver Performance, which outlines exercises aimed specifically at joint flexibility related to driving (K, p.12).

Talk to your health care providers to see if you are a candidate for a fitness program. He or she may also recommend physiotherapy, medications to reduce stiffness or other medical interventions (N, p.5).

In the same way that the texts call upon aging individuals to work on their bodies in order to preserve and maintain their body’s current functional stage, the texts also call upon individuals to stay ‘mentally fit’. Since driving is constructed as an information-based activity, relying heavily on cognitive abilities such as ‘quick’ information processing and decision making, ideal drivers work on their minds, ‘keeping’ them ‘sharp’. They avoid becoming ‘mentally passive’ by purposefully and rationally choosing activities that ‘stimulate their brain’ so as to work on protecting their ‘brainpower’, threatened by the aging process:

Here are some ways to overcome the natural tendency to take more time to react. (…)

☐ Keep your mind sharp - exercise your brainpower with puzzles and problem-solving activities (X, p.13).

Staying mentally active (reading, doing crossword puzzles or playing cards) also helps us concentrate while driving (E, p.8).

Sound health is an essential condition to holding a driver’s licence. That’s why you should: (…)

› stimulate your brain by reading, doing crossword puzzles or playing board games (B, p.6).

As in the examples above, ideal drivers consciously choose to take up activities that require ‘concentration’ and ‘problem solving’, such as “reading, doing crossword puzzles, or playing cards”, because such activities are suggested as valuable opportunities to work upon and protecting one’s brain against becoming ‘passive’ and thus, old.

In conclusion, informed subjects are assumed to approach their aging body and specific body parts as demanding active care and ‘maintaining’ in order to stay a safe driver; in charge of themselves, they rationally engage in exercising ‘their joints’, ‘their muscles’, and ‘their brains’. Since ideal aging drivers relate to their body as an important asset for safe driving in need of self-care they not only engage in ‘maintaining’ their body by
directly working on it and its functional capacities, they also work towards improving their future body by adopting a healthy lifestyle. This body practice, that is, ‘maximizing one’s body by adopting a healthy lifestyle, will be described next.

‘Maximizing’ one’s body by adopting a healthy lifestyle

As ideal aging drivers understand that health is ‘key’ to safe driving (“Your health is a key factor in your ability to drive” A, p.3), they aim to maximize their body by adopting healthy lifestyles. The texts assume a causative linkage between healthy living and safe driving, promoting that individuals, by engaging in healthy lifestyles, are able to positively influence their health and therefore prolong their driving (e.g., “Healthy living, safe driving”, A, p.3, “Attend a Living Well, Driving Well workshop”, S, p.2). While flawed subjects stay passive and might ‘have given up on their personal health or think that they have no control over it’, ideal subjects become active and ‘take’ control; they have neither given ‘up’ on their health, nor are they giving ‘in’, such as by having unhealthy habits or by getting ‘out of shape’. Rather, they work towards shaping their driving future by actively shaping their everyday practices and habits towards ‘healthy’ ones, based on ‘current information’:

12. I try to stay abreast of current information on health practices and habits.
   
   The preferred answer is “Always,” but “Sometimes” is also understandable. However, if you checked “Never,” then you may have given up on your personal health or think that you have no control over it. You have far more control than you might think. What you eat, how much you exercise and regular visits to the doctor (and following the doctor’s advice) can help you keep driving longer and extend your life (D, p.16).

As ‘it all begins with one’s attitude about how much control one believes one has’, ideal drivers approach their health and driving ability as a personal responsibility and work towards controlling their body and health through good lifestyle choices. Through ‘up-to-date’ knowledge, they have learned to ‘appreciate’ the ‘close ties’ between a healthy lifestyle and one’s driving ability. Ideal drivers, in control of themselves, possess ‘will’ and the ‘right’ attitude: they work towards shaping their everyday practices and habits as ‘healthy’ as possible and to abandon unhealthy and risky lifestyles:
Individual lifestyles have a direct relationship to longevity and to quality of life. *It all begins with your attitude about how much control you believe you have over the quality of your life. It ends with how much of it you are willing to exercise.* We all want to be able to handle the demands of safe driving. (…) You also need to keep up to date about health habits that keep your mind and body in shape and able to handle the demands of safe driving. (…) Learn to appreciate the close ties between personal health habits and driving skills. The same attitude that encourages you to remain informed on health practices will also help you to feel in control of your future as a driver (D, p.16).

By controlling their lifestyle and habits, ideal drivers aspire to ‘optimize’ and maximize their health and are thus able to ‘feel in control over their future as a driver’

**Healthy Living**

Some lifestyle habits can help preserve good physical and mental fitness. Sound health is an essential condition to holding a driver’s licence.

That’s why you should:

- consult your physician or health care professional regularly to help resolve any health issues that can arise;
- follow the treatment dosage for medication you are prescribed;
- exercise regularly;
- eat right;
- monitor your weight;
- do not smoke;
- get enough rest;
- do not abuse alcohol;
- stimulate your brain by reading, doing crossword puzzles or playing board games.

*Figure 29:* Example optimizing one’s body (snapshot text B, p.6, full page)
As illustrated in the last snapshot (Figure 30), ideal drivers engage in shaping their everyday living towards ‘healthy living’; that is, they take up and engage in ‘healthy practices’, such as, eating healthily, not becoming overweight, exercising regularly, not overusing, but also resting one’s body, stimulating one’s brain, not smoking, controlling how much alcohol one drinks, and seeking and following medical advice and treatment if it becomes necessary.

All three types of practices are constructed as able to decrease identified risks and allow one to stay in control over one’s aging body. However, as the aging body is constructed as constantly aging, it is produced as an object that is always at-risk of becoming a risky body and needing constant self-governing. This means that aging drivers can never better their ‘at-risk’ position and place themselves as ‘off’ risk - they can only work against becoming worse. This construction underlines the need for aging drivers to constantly govern their bodies carefully and consciously. Besides taking care of their bodies, ideal aging drivers also engage in practices that are able to ‘compensate’ and ‘plan’ for their aging bodies by taking care of their driving, such as by adapting their driving and driving equipment to their aging bodies or by planning for a driving-less future. These ideal driving practices are described next.

### 6.2.2 Taking care of one’s driving: Ideal driving practices

The second ‘intervention site’ that ideal aging drivers act upon in order to stay in control over themselves as ‘safe’ subjects is their driving. The texts consistently describe similar practices that ideal aging subjectivities engage in to take care of their driving. These practices can be summarized as: (i.) upgrading one’s driving knowledge and car; (ii.) adapting one’s driving by changing ‘driving habits’; (iii.) planning for one’s ‘driving retirement’; and (iv.) withdrawing one’s self from driving in time. They are described below.

**Upgrading one’s driving knowledge and car**

One key type of practice through which aging drivers can stay in control over their driving can be described as upgrading one’s driving knowledge and car in accordance to ‘fact’ and expert knowledges about driving in later life and identified risks. This type of
practice entails optimizing what one needs to drive, that is, one’s driving knowledge, one’s driving skills and one’s driving technology. For instance, ideal aging drivers engage in ‘upgrading’, ‘refreshing’, ‘renewing’, and ‘brushing up’ their driving knowledge. Such ‘updated’ knowledge enables aging drivers to keep pace with changes occurring within themselves (“Take a refresher course that helps aging drivers adjust to the changes that occur as you age”, N, p.2) and within their driving environment (“Even if you have experience, there are more cars, faster traffic, and more congestion than ever before”, L, p.7). Consciously ‘rejuvenating’ their driving knowledge - assumed as having becoming ‘out of date’, ‘aged’ with the aging driver, and neglected due to gained experience - enables ideal drivers to ‘extend’ the eventually limited time of ‘risk-free’ driving:

Upgrade your driving skills and knowledge to extend the number of years you can spend safely behind the wheel by:

- **Reviewing Rules of the Road**
  - Pick up a Basic Licence Driver’s Handbook at any AMA centre or Alberta Registries office to renew your knowledge of the rules of the road.

- **Take a Class**
  - Driver refresher classes designed for aging drivers can renew your awareness and sharpen your skills.

- **Brush Up on Your Skills**
  - Take a one-on-one in-vehicle coaching session with a driving instructor who specializes in working with aging drivers (X, p.3).

As in the example above, ideal aging drivers engage in actively improving their driving knowledge by reviewing ‘the rules of the road’; they ensure that they are as familiar and “up-to-date with the rules of the road and the traffic signs” (N, p.30) as possible. As ideal drivers value that being well-informed enables better and safer action, they also ‘prepare’ themselves for potential changes in their driving environment by consciously following the news:

Make a point of reading articles in your local newspapers for changes in traffic patterns and special intersections or signage, so you feel prepared and confident (D, p.8).
Besides regularly informing themselves about their driving environment, ideal drivers also engage in education sessions, classes, and programs designed to ‘re-train’, ‘refresh’ and ‘update aging drivers’:

**Drivers 55 Plus** – an educational series of classroom seminars *designed to update aging drivers* on rules of the road and *keep them driving as long as safely possible* (X, p.21).

Attend a *Living Well, Driving Well* workshop for mature drivers. Find out when there will be a workshop in your community (...) (I, p.1).

Take a *re-training or refresher course* that helps *older drivers* adjust to the limitations of age (D, p.9).

*Drive Wise* is a *driver education seminar* that provides *mature drivers* with a shopping basket of safe driving strategies (W, p.5).

In addition to participating in specific group-programs, ideal aging drivers might also ‘upgrade’ themselves by seeking individual ‘coaching’ and ‘help’ from driving ‘specialists’, such as driving instructors, occupational therapists or driver rehabilitation specialists:

- **Personal Driver Upgrade** - includes a *one on one* in-vehicle assessment as well as *coaching and practice*.
- **Brush up Lessons** - *in-vehicle lessons* focusing on skills and individual needs (X, p.21).

**Getting help**

- an occupational *therapist* or a *certified* driver rehabilitation *specialist* can evaluate your driving, develop *programs to improve safe driving*, or help you find alternative transportation (G, p.7).

Take a *“brush-up’ lesson* with a *professional* driving school (...) (D, p.8).

Appreciating the significance of knowledge in solving and attending to a difficult situation, ideal drivers strive to learn more about their at-risk status and what they can do to specifically address it. They understand that rational and active subjects can ‘help’ and empower themselves by educating themselves. Consequently, they will seek to learn ‘the trick’, ‘new ways’, and ‘new behind-the-wheel techniques’, which will allow them to ‘handle’, ‘compensate for’, and ‘adjust to’ their at-risk position:
Enroll in a refresher course for older drivers so that you can brush up on your skills and learn new ways of handling the challenges faced by older drivers (N, p.7).

Yet with all their experience, aging drivers are still subject to [body] changes (...) the trick is to learn how to compensate for them (X, p.1).

- Take a re-training or refresher course that helps older drivers adjust to the limitations of age. There, you can learn and practise ways to improve your ability to more rapidly anticipate and avoid dangerous situations (...) (D, p.11).

Older drivers often need to be brought up to date on changing traffic laws. A refresher course can also refine skills and teach new behind-the-wheel techniques to compensate for the effects of aging (...) (K, p.14).

Ideal aging drivers not only ‘equip’ and ‘upgrade’ themselves with better skills and knowledge, they also choose to ‘upgrade’ their car so that it matches the driver’s current and expected future condition. As they are aware and informed that aging will make their driving more difficult and thus, more risky, ideal aging drivers take control by making consumer choices that can ‘make the driving task easier’ and safer. The texts suggest that ideal aging drivers can reduce their risk by responsibly choosing “the right car” (K, p.12) or by adding ‘adaptive devices’:

Choose a vehicle that can make the driving task easier (automatic transmission, power accessories, etc.) (B, p.7).

Here are some strategies that can be used to reduce the risk:

- choose a vehicle that is easier to drive, such as one with automatic transmission or power options like adjustable seats (H, p.4).

choose a safer car (...) well before skills diminish (K, p.3).

Therefore, risk-aware and informed subjects do not make decisions based on individual preferences, taste, or desires, rather, they rationally choose and responsibly prefer a car which maximizes their safety. Following the suggestion of ‘safety experts’, ideal aging subjects can ‘add’ a ‘margin of safety’ and ‘extra security’ to their driving by buying (or upgrading one’s car to) the ‘right’ car, one that is specifically ‘equipped’ for the distinct age-related functional losses that pose a risk to driving:

A car with up-to-date features and a comfortable fit will give the driver an added margin of safety (...) Safety experts recommend (...) Wide-angle rear-view
mirrors and a convex side mirror may help drivers with reduced neck flexibility or peripheral vision(...) Push-button controls and levers are easier for older drivers to use than knobs, which require turning or twisting. Power windows and door locks eliminate cranking and reaching; they provide extra security, too. Power steering (often eliminated from the standard equipment list on economy cars) compensates for reduced arm strength (K, pp.12-13).

Equip your car with devices that compensate for losses of flexibility and strength and learn how to use them. Make sure your next car has power steering, power brakes, automatic seat adjustment and other features to help you control your car better (D, p.11).

A variety of adaptive features can be added to help compensate for physical changes or simply to make the vehicle fit you more comfortably and safely (V, p.6).

As with regard to other choices, ideal subjects draw upon information and advice provided by experts to maximize their individual options and benefits. Making choices that will best fit their individual situation, they also consult ‘highly trained’ professionals and ‘specialists’ as these experts can ensure ‘right’ equipment choices and ‘proper’ and safe use:

Before purchasing adaptive features, you should consult an occupational therapy practitioner to explore your options. You may consider a comprehensive driving evaluation by a driver rehabilitation specialist. Many occupational therapy practitioners are highly trained to evaluate and provide solutions for drivers with physical and visual challenges... These professionals can ensure you get the right equipment, have it properly installed and receive proper training before you take to the road (V, p.7).

As illustrated in this section, aging drivers ideally take care of their driving by engaging in practices through which they can ‘equip’ themselves ‘better’ - with ‘up-to-date’ driving knowledge, improved driving skills, and ‘safer’ vehicle technology. While upgrading one’s driving equipment is one way to reduce the risks generated by a slowly ‘downgrading’ aging body, another way is to ‘downgrade’ one’s driving so that it ‘matches’ one’s aging body and ability. This type of practice, that is, practices that ‘simplify’ and adapt the ways in which one drives, is described next.

Adapting one’s driving by changing ‘driving habits’

Another type of key practice through which aging subjects are able to stay in control over their driving as ‘safe’ is by acting directly upon their driving. Ideal drivers work towards
adapting their driving by changing their ‘driving habits’ in order to reduce age-related driving risks. Self-aware about their at-risk position, ideal drivers “adjust their driving to match their ability” (X, p.1); they change how, when, and where they drive. For instance, informed aging drivers, responsibly adapting their driving, might avoid peak times and busy intersections (knowing that fast, complex traffic situations pose a special ‘risk’ to aging drivers); they might choose to ‘make three right turns instead of a left turn’ (following ‘safe driving strategies’), or they might decide to drive only during daylight hours and good weather (understanding the risks of ‘normal’ vision decline related to aging processes):

**Change How You Drive**

If your health is deteriorating, depending on the type of condition you may be experiencing, you may still be able to drive safely. *You will, however, have to change the way you drive.* These changes may include the following:

- Avoid driving during rush hour.
- Plan for long trips and include rest stops along the way.
- Drive in familiar surroundings.
- Avoid driving at night or in poor weather.
- Avoid driving if you feel ill or have taken medication that can interfere with concentration or cause drowsiness (B, p.7).

Plan your trips to avoid busy intersections or use them at less congested times. Plan an alternate route to avoid left turns from busy intersections. You can sometimes make three right turns to avoid having to make a left turn. If you must turn left, pay extra attention to the speed of cars coming toward you (D, p.9).

**SAFE DRIVING TIPS**

(…) Here are some tips to help keep all aging drivers safe. (…) 

- Plan to drive on streets or routes you know.
- Take routes that avoid risky areas such as left-turn intersections and merge lanes.
- Plan to drive during daylight hours – avoid driving at dusk and dawn.
- Choose well-lit routes if you must drive at night.
- Postpone driving or use alternative transportation in bad weather such as fog, heavy rain, or snow.
- Limit your trips to places that are close to home or are easy to get to.
For longer trips, plan to take frequent breaks at least every 1 ½ to 2 hours (X, pp.4-5).

Reframing and approaching their driving as a rational issue, ideal aging drivers take care of their driving by making ‘safe choices’. As illustrated above, they might decide to limit their driving under certain conditions and times, identified as “High Risk Situations” (E, p.15). However, becoming a ‘safer’ driver also requires engaging in taking control over one’s driving ‘habits’. As one’s aging body and driving skills cannot be taken for granted in the same way as before, some driving ‘habits’ driving might have developed into a risk to oneself and others:

Experience and good judgment may make you a better driver. However, if you were aggressive and hostile on the road when young, you are likely to be much the same today. The difference is that now, because of decreased driving skills, you may not have the ability to recover from those dangerous highway situations that arise out of aggression and hostility.

Therefore, self-aware and responsible drivers, in charge of themselves, consciously discard driving habits that have now become ‘risky’ and take on ‘safer’ ones. To stay safe, they ‘adjust’ their driving habits to ‘accommodate’ their age-related body changes:

Drivers should learn to recognize individual changes and adjust their driving habits accordingly (A, p.1).

As drivers age they must adapt their habits to accommodate physical and mental changes so that they continue to drive safely (S, p.2).

For the aging driver, it [aging] is an opportune time to recognize the normal physical effects of aging that concern driving performance – and it is a chance to adjust driving habits to stay safe on the road (X, p.12).

Aging drivers can adjust their driving habits to cope safely with these [age-related] changes (...) (D, p.1).

Changing one’s driving habits might also involve engaging in ‘restricting’, ‘limiting’, and ‘regulating’ one’s driving. Ideal drivers, as shaped within the texts, subjugate their own interests, motivations, and comfort to considerations of driving safety. As they are in control of themselves, they are able to discipline and ‘voluntarily restrict themselves’ and their driving in order to reduce risks and maximize safety; they are able to make the rational and responsible choice to ‘self-impose’ limits onto their driving:
When driving assessments or medical exams reveal deficiencies that can’t be corrected by retraining or other measures, older drivers must consider restricting their driving, or even think about hanging up the keys for good. (...) In fact, many older drivers will voluntarily restrict themselves to driving only during daylight and good weather, on well-known routes, and at off-peak times. They prefer such self-imposed restrictions to giving up the keys completely (K, p.15).

Have you made the choice to regulate your own driving by: (...)? (X, p.15).

Safe Driving Tips (...) can help you learn how to (...) make safe choices such as deciding to limit your driving under certain conditions (O, p.1).

As ideal drivers ensure that they will not become a risk to others and themselves and are able to govern themselves, they have no difficulties in administering ‘just a few simple adjustments’ to their driving:

*Just a few simple adjustments*, such as limiting your driving to certain times or under certain conditions can help protect you and those around you from dangerous collisions (D, p.26).

The illustrated type of practices, adapting one’s driving by changing one’s ‘driving habits’, is also related to another type of practice, that is, planning for one’s ‘driving retirement’. Ideal drivers, in preparing for their “driving retirement” (G, p.7, K, p.17), proactively generate helpful conditions and options (e.g., having alternatives to driving) which makes is easier to make ‘safe’ and responsible choices, such as changing, limiting, and ultimately giving up one’s driving.

**Planning for one’s ‘driving retirement’**

In becoming informed, ideal, and self-aware aging individuals accept the ‘fact’ that they cannot take their driving for granted. Rather, they agree that one’s driving has its own life course, which one day, according to texts, comes to its ‘natural’ end. Thus, ideal drivers take care of their driving-less future by pro-actively and carefully planning for their ‘driving retirement’. Rationally and responsibly preparing for one’s “life after driving” (B, p.8) is a crucial type of practice: it helps to ensure that one “can remain engaged in life’s activities” (K, p.1) so that “retiring from driving DOES NOT mean retiring from life!” (X, p. 20).

Since the texts imply that the earlier one begins to engage in planning for one’s driving-less future, the better one is able to shape it beneficially, ideal aging subjects plan well in
advance for their driving retirement. Rationally foreseeing ‘the day when driving is no longer possible’, they neither passively await their future nor rely on others for its conditions; rather, they become active, ensuring that they ‘can remain mobile’ and independent. Although the need for the decision ‘to stop driving’ might still feel far away, ideal subjects begin to prepare ‘now’, that is, once they have become aware of risks to and possible limitations in their future:

- Begin to plan now for a day when driving may no longer be possible for you even if you think you still have more years of driving ahead of you. Planning now will help to ensure that you can still remain mobile even after you retire from driving (N, p.4).

Begin to prepare for the day when driving will no longer be possible for you, so you can remain mobile after you stop driving (L, p.16).

There may come a time when you no longer feel safe to drive or you may be told that you can no longer drive. Here are some strategies to help you get where you want to go:

- **plan ahead**: planning for driving retirement should begin before you stop driving (G, p.7).

Pro-actively preparing for ‘the day when driving will no longer be possible’, ideal drivers carefully make provisions by taking ‘the same careful approach to transportation’ as they would ‘with finances’. That is, they think prudently about their driving future in making other life course decisions, such as where one wants to live once one retires from work or when one considers a move, especially in later life:

If you are considering a move, look for a home that is close to shopping and recreational opportunities. (D, p.27)

And, if you decide to move from your house into an apartment, condominium or senior’s residence, try to pick one that is close to public transit or offers a shuttle service. (E, p.23)

Most workers plan carefully for their retirement —they think about housing, health care, financial security, and other needs for years before retiring. But many retirees neglect to plan for transportation. If you are discussing retirement for a family member (or yourself!), take the same careful approach to transportation that you would with finances. Plan (...) well before skills diminish. In choosing a retirement home, for example, look at access to public transportation, the ability to walk to services, and whether transportation is provided by the facility. Plan now [emphasis in original] for a time when driving may no longer be a safe option (K, p.3).
Ideal aging drivers also generate an individual ‘transportation plan’, specifically tailored to their life circumstances. As texts construct problems or difficulties as generated by lacking knowledge (or irrationally and irresponsibly rejecting it), ‘planning work’ is basically information work. By informing themselves about their individual living environment, ideal drivers aim to ‘maximize’ its potential. Creating one’s individual transportation ‘plan’ is described as involving systematically collecting local and personal information in order to generate a range of transportation ‘alternatives’ and ‘options’. For instance, ideal aging drivers, ‘find out’, ‘map out’, or ‘learn more about’ which transportation alternatives would be available and explore and try out different options to find those “options would work best” (R, p.1):

Prior to limiting one’s driving, thought should be given to a TRANSPORTATION PLAN to sketch out ways a driver can remain engaged in life’s activities. Consider making a transportation plan by checking out the alternative of transportation in your community. Use your local phone book to make a list of names and number of ‘tried-and true’. This way, you can control your own mobility choices to maintain your independence... and safety (p.X, p.17).

Driving retirement
Here are some strategies to help: (...)

• make a personal transportation plan:
  - collect information on local transportation options
  - check the blue pages or the Internet for local or regional transportation service providers and for government or community services for older adults that may offer transportation services
• become familiar and comfortable with alternative transportation options (G, p.8).

Alternatives
There are many alternatives to driving. Find out what is available in your area and start trying these options.

- Buses, taxis and other forms of public transit
- Having friends and family members drive you
- Keeping a vehicle that others drive for you
- Van/bus pick-up scheduled and on demand from senior residences and other groups
- Taxi vouchers
Walking
Some volunteer groups offer free rides to seniors (see the back of the Booklet to obtain more information) (E, p.22).

Planning their driving retirement, ideal aging drivers also rationally list the places they want and need to go in their future and educate themselves about alternatives. They, for instance, inquire about delivery and online shopping options (“explore options for ordering groceries and medicines to be delivered at home”, X, p.18); evaluate their social network (“Do you have any family members or friends who you could ask to take you places?” R, p.2; “Car pool and share the driving with friends and family” D, p.27); and inform themselves about bus schedules and practice bus routes (“map out which one to take to get to a specific place and test it out with a relative” X, p.18). They also creatively build resources, such as by offering rides and support to others while one is still driving (“That fosters a sense of mutual support and makes it easier to ask for rides later”, K, p.18); by calculating how much one could spend on taxi fares by retiring one’s car (“While there is no question that taxi fares can add up, have you thought about how much it costs you to use your car?”; E, p.23), or by finding volunteer drivers without becoming a burden to others (“look to a network of volunteer drivers and consider giving small gifts or tokens of appreciation”, X, p.18“; “Do you have any neighbours or acquaintances you could ask to drive you using your own vehicle?”, R, p.2).

Shaping their future conditions by ‘giving it thought’, doing their ‘homework’, and actively examining ‘all alternatives’, ideal drivers are held out as avoiding putting their future at risk. The texts suggest that aging drivers who plan well will continue to live well. Instead of risking becoming socially isolated, housebound, and dependent, ideal subjects ensure their abilities to stay active, socially engaged, and autonomous by engaging in planning:

Giving up driving may leave you thinking that you will no longer have a social life or that you’ll become isolated because you can no longer rely on your usual means of transportation to get around. That’s why it is so important to examine all the alternatives to driving available, to prepare for life after driving (B, p.8).

Remember, with a good transportation plan, retiring from driving DOES NOT mean retiring from life! (X, p.20, bolded in original).
Giving up the keys (...) may provoke fear of becoming ‘stranded’ or housebound. ‘How am I going to get out?’ your loved one may wonder. ‘Am I going sit in a chair and watch TV forever?’ You can help allay those fears and ease the transition to a non-driving life-style (...) Above all, help your senior with ‘homework’ involved in arranging public transportation (K, pp.17-18).

Because ideal aging subjects have prudently engaged in planning for their driving retirement and shaped its conditions beneficially, they can easily make the safe decision to limit and give up their driving without putting their lifestyle at risk. This type of practice, summarized as withdrawing one’s self from driving when ‘it is time’, is described next; it is a practice that all aging drivers are ultimately called to engage in, to govern themselves and their driving and to avoid becoming a risk.

**Withdrawing one’s self from driving when ‘it is time’**

A last important type of practice ideal aging drivers engage in can be summarized as withdrawing oneself from driving when ‘it is time’. Ideal drivers - always considering safety in what they choose to do – are to responsibly and rationally decide when to enter their ‘driving retirement’ and then autonomously carry it out. Preventing oneself to become a ‘risky’ subject by eventually withdrawing one’s self from driving ‘in time’ and by one’s own doing is implicitly framed as the ‘master’ practice of all self practices, because it demonstrates that ideal individuals can ‘master’ themselves. Ideal aging drivers are capable of and willing to govern themselves as drivers until the very end, that is, until they stop being a driver. Engaging in various body and driving practices that enhance ‘safety’, ideal aging subjects are capable of driving for as long as possible - but not any longer than safely possible. Knowledgeable, self-aware, rational and prepared subjects end their ‘driving career’ on their own initiative. Taking responsibility for themselves, they will not rely on and force others to make this decision for them.

As they possess fact knowledge about the risks that aging poses to driving and up to date self knowledge about their risk status, ideal aging drivers recognize ‘when their time has come’ and are able to ‘withdraw’ themselves from driving. Even though they might desire very differently, they are capable of conquering their feelings. As in the text sequences below, they rationally consent that it is ‘performance what matters’, respect the
’warning signs’, and accomplish to ‘pass on the keys’ to other, assumable younger drivers:

When refresher courses, reasonable limits, and safe routes no longer seem enough, the time has come to retire from driving. (...) Even with good planning and preparation, however, giving up the keys is always painful. It marks the end of a stage in life and means facing the limitations of age, finally and realistically (K, p.17).

Taking responsibility means striving to become a safer driver, changing your habits or, if necessary, deciding to retire from driving and use other forms of transportation (R, p.1).

Passing On The Keys

A driver’s age is not a good judge of driving ability. Driving performance is what matters. Here are some signs at any age it is time to pass on the keys: (X, p.20).

If you do need the help of a passenger, it may be a warning sign that it is time to retire from driving. (...) If family or friends are expressing concerns, it may be a warning sign that it is time to retire from driving. (...) If you start having collisions, though, it may be time to retire from driving (N, p.3).

Thus, ideal subjects are depicted as possessing the abilities to overcome and master their desires, and as ultimately making rational and safe decisions about themselves as a driver. They actively ‘pass on’, ‘hang up’, and ‘give up’ the keys in their own control, even though this might be ‘not an easy decision’ and ‘marking the end of a stage in life’. However, as ideal drivers have proactively prepared for their driving retirement, they have shaped its conditions and are capable of making this decision, without losing their mobility, quality of life, and possibilities of staying active. Within the texts, retiring from driving” is constructed as a life course transition, which “marks the end of a stage in life” and requires entering another one. Ideal aging drivers are able to ‘smoothly’, ‘gradually’ and ‘successfully’ transition to this new ‘stage’ of their life. As other life course transitions, ideal subjects, informed, prepared and active, manage well. As in the texts sequences below, they are able to transform themselves into a non-driver without facing unsolvable difficulties or risking a ‘painful crisis’:

Many people gradually reduce their driving, until one day they simply stop. Others have more trouble deciding when it is time to limit their driving (E, p.22).
For most people, giving up the keys –like aging itself– is not a sudden event but a gradual process. Knowing what to expect and preparing for the inevitable can make the process less painful and avert a crisis (K, p.21).

To Drive Or Not To Drive…That Is The Question

Depending on where you live, there are often many ways of getting around town without having to use your own vehicle. Ideally, the transition from driver to passenger will happen gradually, allowing for time to practice and adjust to new mobility options. (…) Consider making a transportation plan by checking out the alternate forms of transportation in your community. (…) This way, you can control your own mobility choices to maintain your independence (…) and safety (X, p.17).

Although ideal drivers engage in autonomously giving up their ‘auto’-mobile, they are not giving up their ‘autonomous mobility’, that is, ideal drivers are constructed as successfully able to ‘maintain’ their independence, self-governance, and freedom.

In conclusion, all four illustrated types of practices - upgrading one’s driving knowledge and car; adapting one’s driving by changing ‘driving habits’; planning for one’s ‘driving retirement’; and withdrawing one’s self from driving in time - are constructed as important self practices to stay in control of one’s driving and ultimately of oneself as a safe subject. The main difference which divides ideal and ‘activated’ aging drivers from non-ideal and passive drivers is the former’s ability and desire to govern themselves, their body, and their driving, in order to prevent their driving from becoming ‘risky’ and ‘out of control’. This, as illustrated in previous sections, can be achieved by taking up several body and driving practices and by working towards becoming self-aware, responsible and rational, informed individuals. The last section of this chapter illustrates the constructed divide between ‘activated’ drivers and their risky ‘others’ in more detail and how the ideal, ‘activated’ driver subjectivity is shaped as a desirable one to take up.

6.2.3 The ideal aging driver and risky ‘others’

In constructing the dominant ideal driver subjectivity, the texts also contrast this subjectivity with non-ideal aging subjectivities. Non-ideal aging subjectivities become constructed as non-normal, risky ‘others’, who hold negative characteristics and ‘fail’ to govern themselves, their bodies, and their driving. This discursive technique of contrasting, previously described within the ‘fact’ assemblage, constructs certain
characteristics and practices as positive and desirable by contrasting them to their negative and unwanted opposites. Contrasting ‘good’ with ‘bad’ qualities and practices, normalizing the first, and shaping the later as deviances, the dominant ideal aging driver subjectivity becomes a desirable one to take up. Subjects, who do not take up these ‘good’ characteristics and practices, become constructed as non-normal, ‘failing’ and risky ‘others’. This is illustrated, for instance, in the following text sequences. The texts portray non-ideal drivers as “failing to notice the changes they are experiencing” and ‘denying the fact’ that they are at-risk. They “overestimate their real capacities” and ‘fail’ to follow basic rules of driving with ‘no regard’ for others. In contrast, ideal drivers are portrayed as in control over their driving ‘habits’ and limitations, they are ‘successful’ individuals, able to easily ‘cope’ and ‘adapting’ their lifestyles:

Many people make changes to their driving habits as they get older without giving it much thought. Others, however, fail to notice the changes they are experiencing that affect driving ability. This Section gives you tips for dealing with various driving difficulties (E, p.9).

Some older drivers are aware of their limits and cope with them. Others, however, overestimate their real capabilities and do not adjust their driving habits. The most cited problems of older drivers include failure to yield, failure to observe signs and signals, careless crossing of intersections, changing lanes without due regard for others, improper backing and driving too slowly (D, p.18).

Some people may deny the fact that they are no longer safe drivers. Others may feel angry or depressed. While these feels are normal, it is good to know that other seniors have limited their driving or have retired from driving completely successfully by adapting their lifestyle and you can too (E, pp.21-22).

At the same time that ideal aging drivers are illustrated as embracing their ‘at-risk’ status and taking on the outlined practices that come with it, non-ideal drivers are depicted as ‘denying’ their status. They become risky others by ‘resisting’ or ‘failing’ to govern themselves and their driving. For instance, as illustrated in the subsequent text sequence, ideal aging drivers, are rational, self-aware and risk-averse subjects in control over themselves, while non-ideal drivers lack (or have lost) “good judgment”, actively “deny the limitations of old age”, and are not able (or not willing) to control and restrict themselves. Because they are not able to govern themselves, they become dangerous subjects who “pose a hazard to themselves and others”:
In the absence of dementia or other serious illness, judgement skills do not decline with age. As a sign of continued good judgement, most older drivers recognize and avoid situations where their limitations put them at risk. They drive less after dark, during rush hour, or in bad weather, and they may avoid difficult roads or intersections. (...) Others deny the impairments of old age. “Who me?” they say “I drive as well as I did 15 years ago”. These drivers resist putting restrictions on themselves and continue to drive, anywhere, anytime. They pose a hazard to themselves and others (K, p.5).

The quotation above normalizes the constructed dominant ideal driver subjectivity (“most older drivers”) and marginalizes subjects who are resisting the offered subjectivity and accompanied self-practices as ‘risky others’ (“a hazard to themselves and others”), unable to self-reflect (“Who me?”) and unable to discipline themselves (“These drivers… drive anywhere, anytime”).

The constructed, dominant, ideal aging subjectivity is further reinforced as desirable by portraying non-ideal aging drivers as showing signs of ‘oldness’, drawing upon negative aging stereotypes. For instance, while ideal drivers - as illustrated in the next text sequences - are portrayed as being self-aware, active, positive, informed, open to and still able to learn new things, optimistic and responsible, non-ideal drivers are portrayed as passive, pessimistic, fearful, easily discouraged, inflexible, self-centered, in denial, and not open to criticism:

If you feel you cannot change and are simply waiting for the inevitable aging and loss of skills, consider giving up your driver’s licence (D, p.17).

Often a senior’s first experience [of other modes of transportation] will influence his or her attitude and decision to continue. One hitch or misunderstanding on the first trip may lead to the conclusion that ‘this will never work’. Also some people are afraid of getting lost, of crime, or of other mishaps. Traveling with a guide for the first few trips helps allay fears (K, p. 18).

Sometimes, an older driver’s fear of dependence overrides your caring, reasonable persuasion and his or her better judgement. Other times, the older driver stubbornly denies having any problems (K, p.6).

This positive construction of ideal aging drivers as staying ‘young’, ‘active’ and ‘conquering’ difficulties through information, in contrast to non-ideal aging drivers, negatively represented as ‘old’, ‘fearful’ and in ‘denial’, holding on to driving, can also be illustrated by the next two visuals. These cartoon-like pictures, taken out the brochure “How to Help an Older Driver” (K), show an identical aging couple in two very different
and contrasting ways: as ideal aging subjectivities (left picture) cheerfully embracing ‘driving retirement’ and entering a new life course stage (as becoming married once was), and as non-ideal aging subjectivities (right picture), fearfully holding on to the driving keys, guarding themselves against their assumed son’s advice:

![Figure 30: Representation of ideal and non-ideal driver subjectivities (left picture: text K, p.16; right picture: text K, p.20)](image)

Note also, how the left picture, compared to the right one, almost bursts with activity, happiness, optimism, and life (e.g., signified by the numerous, busy, and joyful animals), while the right picture conveys stillness, immobility, and concern (e.g., signified by the absence of any activity, animals, flowers, smiles, but presence of concerned faces). The left picture, as well, portrays active and positive aging subjectivities, dressed in sport suits and a sport cap, while the right picture portrays inflexible and fearful aging subjectivities, ‘standing still’ and dressed in stereotypical ways. Moreover, the non-ideal aging couple seems to ‘deny’ that times, and with them, subject and risk positions have changed: they are illustrated as addressing their grown-up, assumedly independent and responsible son still as a dependent, not knowledgeable child (signified by a diaper, teddy
bear, and a feeding bottle and professional clothes, such as a tie on his top). Thus, the non-ideal aging subjectivities in the right picture are constructed as unable (or unwilling) to embrace their changed subject position and to take advice. As they are not self-aware, and irrationally ‘holding on’ to the past and also to the keys, they will ultimately – in the logic of the texts - become risky subjects.

In another text, Linda, an exemplary at-risk driver, implicitly transforms through the course of the brochure from an un-informed to an informed and thus, ideal aging driver subjectivity. Implicitly becoming aware of fact and risk knowledge, presented within the preceding text, Linda, at the end of the text makes a rational ‘decision’. Her decision represents a self-aware, responsible, pro-active, and information seeking aging driver subjectivity, which the reader is invited to take on:

**Linda’s decision**

Linda still believes that she is a safe driver, but recognizes that there are some situations that are more risky than others. She has decided to avoid situations such as driving in heavy traffic, in bad weather and at night. She will also look for a driver information session in her community to learn more about safe driving.

**What strategies will you use?** (G, p.9).

The question addressing the reader (“What strategies will you use?”) takes already for granted that a rational, now informed reader, has – like Linda – transformed to an ideal aging driver, supported by the brochure’s information. Thus, he or she simply needs to think about which of the previously suggested strategies can be best applied within his or her everyday life and driving.

The previous chapter described the dominant ideal aging driver subjectivity constructed and promoted within the texts, as well as several ideal practices in which aging drivers are encouraged to engage as a means of becoming a successful ‘activated’ driver and to avoid becoming a ‘risky older driver’. As illustrated, the aging driver discourse promotes ideal drivers as self-aware, responsible, rational, and informed decision-making subjectivities, who take care of their bodies and their driving by taking up several practices.
7 Discussion and Conclusion

The key objectives of this thesis were to advance the understanding of how the concept of risk is employed to govern an everyday occupation, and to explain how risk is taken up in discourses to constitute particular subjectivities and their occupational possibilities. With the introductory chapter, I highlighted that risk is important to the study of occupation, because it is neither a neutral nor self-evident concept, but one that is socially constructed in ways that have moral and political implications and that shape and bound occupational possibilities. I also argued that risk is closely tied to everyday occupation for two additional reasons: first, because the presence of risk constitutes an imperative to take action and, second, because consideration of risk has become prevalent in many areas of everyday Canadian life.

Through a scoping review of occupation-based literature on risk and occupation, I uncovered the dominance of a technico-scientific perspective in the existing literature and highlighted new questions and understandings that could emerge through application of socio-cultural perspectives on risk. Drawing upon the exemplar of driving in later life and aging drivers, I then conducted a governmentality-informed critical discourse analysis (CDA) of Canadian-based information brochures. In my first Findings chapter, I attended to the discursive techniques and overall narrative of the texts, outlining the rhetorical organization in relation to three key knowledge assemblages and described the discursive techniques tied to each assemblage. The second Findings chapter focused on articulating the ideal aging driver subjectivity that is constructed within the brochures. This chapter attended to three key characteristics of this ideal ‘activated’ driver and described key practices that aging drivers are called to take up to work towards this idealized subjectivity. As well, this second findings chapter illustrated how the ‘activated driver’ is further promoted within the texts via contrasts made with non-ideal, risky subjectivities.

In this chapter, I interpret and discuss these findings drawing upon a governmentality-informed perspective on risk. The discussion is organized in three parts. Part one discusses how driving in later life becomes constructed as a risk-problem. In this section, I situate how the occupation of driving, and the aging body, is problematized through a
technico-scientific perspective on risk and how this aligns with a neoliberal rationality which relies on ‘governing at a distance’. Part two discusses how driving in later life is governed through the constructed subjectivity of the activated driver, and outlines the technologies of the self that are promoted as means to continually work towards this subjectivity. In part three, I return to my key objectives and discuss how my research findings illustrate occupation as a site of governing and a technology of government and consider the implications that arise for the study of occupation. In addition, I raise concerns and questions regarding how risk discourses, which are primarily informed by a technico-scientific perspective, may be taken up to govern occupation in ways that are aligned with neoliberal rationality and that obscure the socio-political construction of risk, alternatives for managing risk, and inequities in occupational possibilities.

7.1 Governing driving through risk

As outlined within the methodology chapter, discourses within this thesis are viewed as an ‘epistemological site’ (Sunderland, 2004) where power and knowledge join in constructing who and what should be governed and in which ways. Therefore, discourses do not just reflect ‘the way things are’, but rather are productive in that they constitute how people come to think about reality, certain phenomena and themselves. Within this discussion, I consider how the discourse of the aging driver, as taken up and circulated within the brochures analyzed, problematizes aging drivers and driving in later life.

More specifically, in this first part of the discussion chapter, I situate the findings of this critical discourse analysis in relation to risk discourses and governing. I draw upon epistemologies of risk discussed in this thesis’ introduction as well as al tools associated with a governmentality perspective. In particular, I consider the findings regarding the content and form of the aging driver discourse constructed within the brochures in relation to: a) what is being problematized, including how power/knowledge is operating within the problematization; b) the characteristics of the ideal subjectivity of the activated driver, and, c) the self-technologies promoted.

Overall, I argue that both the occupation of driving in later life as well as the aging driver, and, in particular the body of the aging driver, are created as risk objects in need
of responsible self-government. I also suggest that the aging driver discourse articulated with the brochures privileges a technico-scientific risk perspective (Lupton, 1999), which is deployed to govern driving in later life in ways that produce an ‘activated driver’. This idealized subjectivity, in turn, is presented as achievable through taking up particular technologies of the self which, in alignment with neoliberal rationality, call upon aging drivers to govern themselves, and the occupation of driving, in proactive, calculative and risk-reducing ways guided by technico-scientific experts and knowledges.

7.1.1 The problematization of driving in later life

In describing this study’s theoretical framework in chapter three, I outlined why it is essential to attend to problematizations in studies that address how everyday occupation is governed. As previously outlined, governing the conduct of the conduct, “is a problematizing activity” (N. Rose & Miller, 1992, p. 181, original emphasis). Essentially, if driving in later life appears to require governing in particular ways, then it needs to be rendered problematic, such as by highlighting it as a risk to public safety or as dangerously deviating from expected ways of driving (N. Rose, 1996b). As Foucault states “to govern means to govern things” (Foucault, 1991, p. 94), which have to be “thought of” first (Miller & Rose, 2008; Nadesan, 2008). Thus, rendering certain conduct as problematic to others or the self is a discursive practice that reinforces and produces ideas about how conduct ought to be, what needs to be protected, and by whom. Governmentality analysis then is not concerned with revealing wherein a problem lies, its causes and effects, its trueness or falseness, but with the everyday practices of how persons, things, or doings emerge as problems, how problematizations are kept alive and ‘true’, and according to which systems of judgments, by whose values, and in which contexts. Therefore, as Osborne states “problematisations are not modes of constructing problems but active ways of positing and experiencing them. It is not that there is nothing ‘out there’ but constructions but that policy cannot get to work without first problematising its territory” (Osborne, 2006, pp. 174, emphasis added). Therefore, I will discuss in the next section, my findings on how a technico-scientific risk rationality, emphasizing calculation, regulation and control, and related risk technologies, such as risk assessment and monitoring, renders the ‘territory’ of later life driving intelligible and
manageable (N. Rose, 1996b). Through this problematization, driving becomes a site of governing and aging drivers are shaped in ways to promote self-governing.

**Rationalizing the problem: a technico-scientific risk perspective**

The findings were found to parallel, draw upon and reproduce a technico-scientific perspective on risk (Lupton, 1999). Within various places and in a variety of ways, a technico-scientific perspective was embedded in the brochures to present certain risks as scientific ‘facts’ and certain strategies as rational means to reduce risk. Below, I outline three ways, in which a technico-scientific perspective was employed to illustrate this finding. I also address how the rhetorical structure of the brochures reproduces this same risk perspective.

Employing a technico-scientific risk perspective, the discourse found in the brochures constitutes driving risk as a pre-existing and ‘true’ part of reality, which can be detected, calculated and measured through continuous progression of scientific knowledge. As it is assumed to be pre-existing, and objectively measurable through accurate, value-free scientific methods, driving risk is represented as an apolitical fact that refers to all aging subjects. In the brochures analyzed, scientific knowledge generation is reinforced as providing access to dimensions of reality, particularly the reality of risks, as if these are not possible to access through everyday human experience. For example, the risks of the aging body are framed as though they are only, at least, more knowable through scientific facts, rather than embodied experience. In turn, commensurate with the privileging of expert as opposed to lay knowledge in a technico-scientific perspective, scientifically-derived knowledge is taken-for-granted in the brochures as inherently more accurate and precise than personal experience, intuition, or perception. Quantification techniques, informed by research conducted by experts, are highlighted as ideal means to calculate and predict one’s future course of life and the probable consequences of one’s actions and decisions. In line with a technico-scientific perspective, the texts present risks as something purely negative; risk is equated with danger and is drawn upon to alarm subjects to become active, take responsibility, and act to reduce risk, for example, by changing driving habits. A technico-scientific perspective assumes that risk is best known by identifying and accumulating the various factors that produce it. Within the brochures,
knowing about the factors that produce a risk, such as busy intersections, left turns, and an age-related slower information processing ability, is presented as enabling individuals to take the most successful, evidence-based, rational and safe actions.

Using a technico-scientific risk perspective, the brochures unequivocally address the targeted readers as rational individuals, who will value the proffered information and integrate the advice into their daily lives. Having true, up-to-date and maximal information is presented as advantageous in guiding risk-reducing decisions and actions, such as which car provides maximum safety for aging drivers, or how to ensure one’s mobility in later life in ways that avoid the risk of dependency and burdening others. In employing a technico-scientific perspective, the texts emphasize the assumption that individuals, once informed, have equal opportunities to make responsible choices.

The technico-scientific risk perspective is also utilized to normalize and standardize driving, human bodies and drivers. For instance, in categorizing and representing some drivers as an at-risk group that differs from the ‘normal’ driving population, texts produce and reinforce what type of driving and which driver is considered ‘normal’. As well, in constructing a measurable ‘loss’ of body function as a risk to driving, a technico-scientific risk perspective reproduces what is taken-for-granted as a ‘whole’ and normal body. For instance in listing several risk factors, is taken for granted that the ‘normal’ driver (or ‘previous’ driver) is an able-bodied, rational-deciding, quickly information-processing, not-being-honked-at, always fully-concentrating, never-distressed by congested traffic, accident-free subject that almost invisibly blends into and moves within the flow of traffic accident free.

Furthermore, this privileged risk rationality is not simply drawn upon within the content of the brochures. Rather, the findings of this study illustrate how this risk rationality is also actively produced within the brochures’ rhetorical structure. Indeed, a technico-scientific risk rationality was found to be the organizing rhetorical scheme of the overall text. Specifically, the identified knowledge assemblages (fact, evaluation, action), each associated with different discursive techniques and operating together in producing the overall argument, enact and reproduce a technico-scientific risk rationality. They also
offer up a range of risk technologies, such as risk-assessment, risk monitoring, or prevention planning, which will be further elaborated upon in the section below, addressing technologies of the self. Characteristic of a technico-scientific risk logic, the brochures portray risk as something that can be known through research, experts, and the progress of scientific knowledge (fact knowledge assemblage). Aging individuals, who have become aware of the risk facts can, in turn, initiate processes of identifying their personal risk profile through risk-assessment so as to objectively recognize and quantify their at-risk position (evaluation knowledge assemblage). In line with a technico-scientific rationality that presumes a cause and effect relationship between risk factors and risks, the brochures assume that rational and responsible subjects strive to engage in practices that decrease and prevent their risks. Consequently, the brochures suggest helpful practices and resources in order to empower subjects to become proactive and to control the risks they face, by monitoring their bodies, changing their driving habits, and prudently planning their future (action knowledge assemblage). Through this structure and the various other ways a technico-scientific perspective is embedded within the brochures, the problem of the aging driver becomes framed as one of measurable risks located within aging drivers’ bodies and the misfit between bodies and the demands of driving as known through particular expert forms of knowledge. This knowledge, commensurate with a technico-scientific perspective, centres on identifying, measuring and developing strategies to manage risk and references technico-scientific framings of risk as self-evident truths.

7.1.2 Configuring the problem: The aging driver and driving

In this section, I illustrate the various ways in which a technico-scientific perspective on risk was employed within the brochures to construct the aging body as a risky object, to construct driving as a technical task fraught with risk, and to ultimately define the problem as one of mis-fit between the aging body and driving. I address how driving and the aging body are reconfigured through a scientific gaze and how aging drivers are called upon to turn this gaze inwards in order to make the complexity of their bodies and the driving process visible through focused and sustained reflection and as something to consider. While aging individuals might have taken driving, as well as their bodies for
granted, the discourse problematizes the aging body as increasingly unable to meet the requirements for driving, and, thus, as a risk. It calls upon aging drivers to re-configure their understandings of themselves, their bodies, and driving. This, in turn, creates a space for governing ‘at a distance’ through subjectivity.

Problematicizing the aging body

A key pillar in the problematization of driving in later life is the construction of the driver’s body, in aging, as inevitably and increasingly undergoing negative changes that pose a risk to driving ability. Drawing upon a technico-scientific risk perspective, statistical and biomedical knowledge is enlisted to present the aging body as a risk for unsafe driving, in need of governance. The assumed neutrality of numbers is deployed to raise concern that, due to demographic changes, the aging population heightens the public’s overall risk for age-related crash-injury. Biomedical authority is used to turn the gaze towards the reader’s own body which is constructed as undergoing age-related changes that position the aging individual as at-risk for age-related injury and as exposing others to potential risk.

Within the texts, which direct the readers to view themselves as aging subjects, scientific, biomedical “facts” are integrated in ways that signal the importance of not taking the aging body for granted. Rather, aging subjects are exhorted to understand themselves as subject to age-related negative changes, and to a body that creates risks to driving. Expert knowledge is represented as being able to make these ongoing changes more discernible and accessible. This crucial role of expert knowledge in rendering a problematization visible (“Here are some eye-opening facts”, X, p.8) was also noted by Lemke in his analysis of genetic testing; as Lemke states, there “is no visibility without (enlightenment) experts who explain to us what there is to see” (Lemke, 2004, p. 556). In this study, the invisibility, but potential dangerousness of ongoing changes within one’s body has also the important discursive effect that it supports the promoted idea that aging bodies cannot be relied on and ‘trusted’ in the same way as normal bodies (“Sometimes changes… occur so gradually it is easy to overlook the affects of aging”, X, p.8).

Scientific knowledge and experts are positioned as having the capacity to make these seemingly invisible bodily changes visible and, in turn, manageable via the translation
and transmission of knowledge regarding risk factors to lay subjects. Commensurate with the rational subject privileged within a technico-scientific perspective, subjects are constructed as able to maintain control over their aging body and as needing to engage in a particular relationship with their aging bodies - one that is not based on embodied experience, but on facts and reason.

The discursive problematization of the aging body as a risk object that creates an ever-increasing risk to driving is a key element in the aging driver discourse. This way of problematizing driving in later life locates the risk within the single individual and promotes a particular relationship between aging subjects and their bodies; it positions aging drivers as at-risk subjects, who need to take care and charge of their aging bodies so that they can avoid becoming risky drivers. This study has elicited the main discursive techniques through which the construction of the aging body is achieved and established as ‘true’. These include quantification technologies, which establish age-related changes in body function as measurable, calculable, and predictable facts, even though they might not always align with a reader’s experience of his or her own body and driving ability. While the ‘truth’ about the aging body is, on the surface, constructed by presenting an array of biomedical facts, this study has also shown how specific discursive techniques and risk technologies construct these facts and operate to encourage people to reproduce these facts as self knowledge. For instance, as illustrated, evaluation knowledge assemblages offer scientifically-appearing devices to observe and screen the alarming changes occurring in one’s body and, thereby, to personalize the objective facts of the aging body (established by the fact knowledge assemblage).

The problematization of the aging body as the root of the problem is crucial as it shapes individual bodies as objects and as sites of governing that individuals are expected to act upon to self-regulate their driving. Indeed, if chronological age had been shaped as the sole rationale for decisions about driving safety, there would have been no process in which aging subjects could engage. In fact, the discourse implies that it is actually more just and reasonable to treat every subject’s driving body individually, as subjects are individuals and ‘age at different rates’. That is, while aging and becoming an aging driver is framed as a universal and collective process that every ‘body’ is subject to,
understanding and reflecting upon oneself as an aging driver is, at the same time, a very personal process; one must judge for oneself when one’s autonomy (over driving) should be restricted. I will return to this framing of aging as a universal, yet simultaneously individual experience and responsibility, and to the process of submitting oneself to the aging driver subjectivity, when I focus on how the findings align with neo-liberal rationalities.

Since the discourse constitutes aging as an ongoing, primarily bodily process that, over time, inevitably erodes safe driving ability, aging individuals emerge as at-risk subjectivities, required to actively and self-consciously defend the risky subjectivities that their aging bodies hold. The supposition that a shift in risk position - from being ‘at-risk’ to becoming ‘a risk’ – is quite probable and calculable, also makes possible the idea precept that aging subjects become risky drivers by their own doing, or, more precisely, through their lack of doing.

Problematizing driving

The second pillar in problematizing driving in later life is the (re)configuration of driving as a ‘complex task’. Driving is established as the outcome of a multifaceted functional process that is largely invisible to the lay person, requiring information-processing, decision-making and the coordination of complex body functions. The problematization assumes that drivers might have approached their driving as an embodied, taken-for granted activity, which they might not have given much ‘thought’ to before. However, since experts, drawing upon scientific calculations, have identified aging drivers as an at-risk group, and, since technico-scientific research is able to break down the tasks of driving to identify its requirements, the problematization constructs a need to ‘think’ about and self-reflect on one’s own driving objectively and rationally, facilitated by the offering of evidence-based knowledge. Thus, the complex process of driving is framed as best made visible and explainable by technico-scientific technologies. Becoming aware of and knowledgeable about the complexity of the bodily requirements for driving, offered up in the texts again through the use of objective measures and scientifically-produced ‘facts’, is produced as necessary to remaining a safe driver.
Driving is also purported to have a life course in which ‘driving retirement’ marks its inevitable and natural end. Although retiring from driving and ‘passing on the keys’ to younger others is constructed as a personal decision to make (“To Drive or Not to Drive… That is The Question”, X, p.17 ), it is a decision that needs to be prudently and proactively planned, similarly to other life course transitions, in ways that draw upon a calculative rationality informed by expert-derived knowledge. This framing, again, normalizes and individualizes driving and shifts the responsibility for the quality of “life after driving” to individuals, as it is an expected life transition. Ultimately, driving becomes a matter of self-care.

**Problematizing a growing misfit between the aging body and the task of driving**

A central effect of the aging driver discourse traced within the brochures is the construction of the aging body as ultimately incompatible with and, thus, a risk to driving. This study has demonstrated how certain discursive techniques, such as using opposing adjectives, reinforce the constructed truth that the aging body and driving are incommensurate. Even though aging subjects are constructed as being able to maintain their individual driving ‘fit’-ness for some time, by simplifying their driving for their declining body functions (e.g., no left turns, no night or bad weather driving). Because aging is constructed as a natural part of one’s life course, driving, too, is constructed as having a natural life course. That is, driving comes to its ‘natural end’ when the gap between age-related functional loss and the level of body function required for driving, cannot be adapted to or compensated for.

In the same way that aging is established as a biological process that is located *within* subjects and therefore not fully visible to lay persons, driving is established as a complex technical process that is also not fully visible to a ‘normal eye’; applying a scientific gaze to both is represented as revealing their ‘true’ and hidden nature. Both the aging and the driving process are constructed in technical ways – as things that can be objectified, measured, and related to risk and rendered visible through the authority of science.
In summary then, aligned with a technico-scientific perspective of understanding and managing risk, the aging driver discourse problematizes the body as an object composed of several body parts and functions, each required for driving and thus in need of being monitored, optimized, and governed by the self to ensure driving ability and safety. In turn, driving is problematized and objectified as a physical, body-based activity, in need of either a fully functional body or to be adapted to an aging body by subjects that are in control of their bodies and driving at all times. In essence, the constructed problematization establishes that it is biological bodies that drive cars, but subjects that drive their bodies. In turn, this problematization leads to solutions that focus on how aging subjects can come to know, monitor, and manage their risky bodies.

7.1.3 Constructing risk objects: Dividing practices and expertise

In order to become the site of risk management and intervention and be subject to a particular logic of what needs to be done and what one should refrain from doing, risk objects need to be defined. As I argued in the first chapter, referring to Slovic (1999), defining the objects of risks is not a neutral, but a political process, as follows:

If risk is defined one way, then one option will rise to the top as the most cost-effective or the safest or the best. If it is defined another way, perhaps incorporating qualitative characteristics and other contextual factors, one will likely get a different ordering of action solutions. Defining risk is thus an exercise in power (p. 689).

How risk is defined produces and reproduces particular power relations, subject positions, and possibilities for action. In this section, I discuss how driving in later life, as well as the aging body, become constructed as risk objects, so that they can be governed in particular ways. While the previous section illustrated some of the ways in which driving and the aging body become objectified in these documents, I elaborate here on Foucault’s idea of ‘dividing practices’ and also examine how expertise is positioned within the texts.
Dividing practices

In taking up a productive conceptualization of power, governmentality scholars have asserted that governing occurs through the production and shaping of subjectivity. Dividing practices are an important condition for self-governing or governing through subjectivity. As articulated by Chambon (1999) and colleagues,

Dividing practices lie at the heart of techniques of power by establishing partitions and creating categories. They differentiate between the normal and the abnormal, or the pathological. Dividing practices are implemented through procedures that distinguish, separate, and categorize populations…. Dividing practices also occur at the level of the self. When individuals apply to themselves the same criteria of judgment and self-evaluation, they engage in dividing the self between an observer, or knowing self and an observed and managed self (p.273).

This study has demonstrated how discursive techniques create such differentiations, such as between aging and normal drivers and the knowing and managed self. They produce risk objects as well as call upon aging subjects to see themselves and act in relation to themselves in particular risk-averse ways. For example, fact knowledge assemblages use quantification, explanation, and comparison and the authority of statistical and biomedical knowledge to bring an at-risk driver into being that differs from a supposedly normal driver. Evaluation assemblages, offer assessment tools to aging drivers and encourage then to apply these facts to the self and to discover a driving self that needs to be managed. The aging body itself is also divided in several body parts drawing upon and reinforcing a biomedical model of the human body. This has three important effects. First, the functions deemed necessary for risk-management and responsible self-regulation are constructed as intact (“Using their ‘good mind and wisdom’, aging drivers tend to avoid situations that put them at risk”, X, p.2), even though other functions decline (“Most older drivers tend to have good judgment when driving. It is in reacting to emergencies that some older drivers most markedly demonstrate a slowing down”, D, p.10). The separation between a knowing self and a managed self is a crucial condition for self-governing. Second, dividing the body into different parts and functions, each of which needs to be monitored and managed, creates the need for various specialists and
expertise. Individuals are encouraged to seek advice from an array of experts, such as optometrists, physicians, and audiologists. Third, the discursive fragmentation of the aging body also opens the body up to an array of self-practices. In this sense, action assemblages, for instance, suggest that taking care of and improving specific parts of the body by exercising “brain power with puzzles and problem-solving activities” (X, p.13), staying “active by walking, gardening, golfing etc. to help improve muscular strength and range of motion along with joint flexibility” (X, p.14), and being diligent about “good nutrition, getting enough sleep and staying mentally active… also helps us concentrate while driving” (E, p.8).

To sum up, dividing practices as traced in this aging driver discourse can be considered a key technique through which power/knowledge is exercised; they are practices that create objects, including particular subjectivities and classifications of conduct. Risk rationalities and technologies, through their characteristics of objectification, calculation, standardization, and rationalism, can be viewed from a governmentality perspective as a successful dividing practice that confers risk identities (Dean, 2010b), such as the ‘risky old driver’, or the ‘activated driver’. This study contributes to provide insight into how dividing practices are discursively established and reproduced at the everyday level, such as in information brochures for aging drivers, in which distinct knowledge assemblages establish various truths and possibilities for subjectivity: fact knowledge about the risks, self knowledge to assess one’s risk position, and action knowledge to guide action.

**Expertise and power/knowledge**

From a governmentality perspective, “political rationalities and governmental technologies are shown to be intrinsically linked to developments in knowledge and to the powers of expertise” (Rose & Miller, 1992, p. 173). Expert knowledge is key to the exercise of power in modern society as it solves the problem of how free and autonomous individuals conduct their everyday lives in ways that align with broader political rationalities; in other words, expert knowledge establishes necessary links between “socio-political objectives and the minutiae of daily existence” (N. Rose & Miller, 1992, p. 187).
For instance, as previously illustrated, the problematization of the aging driver as being at-risk draws heavily upon epidemiological and biomedical fact knowledge. By providing presumably valid and up-to-date knowledge about such things as the effects of aging, the signs to watch for in monitoring driving and the self-practices to take up, experts are drawn upon in ways that effectively frame aging bodies as risky and aging subjects as ‘at risk’, given the potential mis-fit between their bodies and driving.

More specifically, Nettleton (1997), drawing upon Rose, argues that knowledge aligned with expertise, as defined within a technico-scientific perspective, is central to the exercise of power in contemporary society in at least three ways:

First by locating the authority of claims in ‘scientificity’ this serves to distance systems of self-regulation from formal forms of political power. Second, ‘expertise’ can be mobilized within political argument wherein it can play a particular role in the development of programmes of governing. Third, expertise has a salience for the ‘self-regulating capacities of subjects’ in that it ties their subjectivity to ‘truth’ and in this has a potent ethical dimension. In turn, a recourse to expertise can also mean that subjects may form new relationships with ‘experts’ (Nettleton, 1997, p. 216).

This study has demonstrated how expertise operates in the aging driver discourse in the above described ways. Drawing upon technico-scientific forms of knowledge, the problem is rendered visible through assumedly neutral scientific facts and identified risks. In turn, the problematization becomes constructed as a ‘natural’ one which is rooted in the life course of the body and driving, as opposed to it being regulated and shaped via socio-political power. In this way, scientific knowledge distances the need ‘to do something’ from explicit political objectives and locates it in individuals. Second, ‘scientificity’ and technico-scientific risk are mobilized to establish the problem as a ‘true’ reality and not as stemming from invalid stereotypes, ageism, or exclusion (“No one loses his or her driver’s license solely because of age”, p. A, p.1; “everyone concerned with traffic safety wants to keep aging drivers on the highways as long as they can drive safely”, D, p.1). Third, scientificity facilitates aging drivers to access important truths about themselves. These truths, offered by science, involve and generate an ethical
responsibility to self-regulate and take care of one’s driving; it is simply rational and moral to avoid risks and not to endanger others (“Through knowledge and self-awareness, you will understand, what a safe driver is and will assume the responsibility to be a safe driver”, D, p.6). Finally, expert knowledge, as mobilized within the aging driver discourse, also invokes ideal subjects to take up particular relationships, predicated on risk, with experts, such as regularly seeking a doctor’s and pharmacist’s advice and check-ups related to one’s driving. In summary, the power of expert knowledge lies not so much in forcing subjects to give up driving, but rather in leading them to discover and experience themselves as being at risk and to desire to become safer by enlisting themselves in risk-management.

7.1.4 Main effects of the identified problematization

The constructed problematization of driving in later life and the aging driver produces three main effects: 1. it individualizes and personalizes driving in later life, 2. it responsibilizes aging subjects to take care of their driving so as not become a risky subjectivity, and 3. it calls on aging drivers to monitor and activate themselves by engaging in assessing, monitoring, and minimizing identified risks. Drawing these together, the problematization supports the enactment of governing at a distance through the construction of an ideal risk-averse subjectivity. The discourse found in the brochures aligns with neo-liberal rationalities that stress activation, individualization, and responsibilization (Rose1999). Several governmentality scholars have pointed to technico-scientific risk as a rationality and technology that aligns well with neo-liberal forms and objectives of governing (Castel, 1991; O’Malley, 2004; Petersen, 1996; N. Rose, 1999). Techno-scientific risk plays a key role in neoliberal forms of governing as it detaches experts from direct intervention into personal lives while ‘employing the agency of subjects in their own self-regulation’ and risk management. As illustrated in this study, risk can therefore be seen as a powerful rationality and technology that fosters governing from a distance (N. Rose, 1999).

Foucault articulated that governing the self and others occurs through three main modes of objectification: 1. modes of inquiry that give themselves the status of science, 2. objectivizing the subject through dividing practices, and 3. the self turning itself into a
subject (1982). In the previous section, I have referred my findings to the first two modes and related them to risk. In the next part of this chapter, I return to how the construction of particular subjectivities demands that aging subjects transform themselves from a supposed ‘normal’ driver into an activated driver.

7.2 Governing through subjectivity: Shaping and idealizing the ‘activated driver’

Governmentality offers a framework for analyzing how driving in later life and other aspects of everyday life are problematized and managed in ways that align with contemporary political forms of governance (Garland, 1997; N. Rose & Miller, 1992). Questioning risk as a neutral and pre-existing reality, a governmentality framework investigates risk as a “family of ways of thinking and acting, involving calculations about probable futures in the present followed by interventions into the present in order to control that potential future” (Rose, 2001, p. 7). In the previous sections I have argued that the aging driver discourse problematizes aging and driving by utilizing a technico-scientific risk logic and shaping driving and aging drivers as risk objects. The problematization of driving in later life and the aging driver as misfit, in turn, allows for the solutions offered up to focus on how to govern the self and regulate one’s driving in responsible ways so as to manage risk to the self and to others.

In this part of the discussion, I discuss the subjectivity privileged within the aging driver discourse; I also return to Foucault’s idea of technologies of the self, viewing the practices that are offered up as a means to work towards the idealized subjectivity of the activated driver within the texts, as technologies of the self.

7.2.1 The activated driver and good neoliberal citizen

As established in the second findings chapter, the aging driver discourse promotes the ideal driver as a self-aware, responsible, rational, and informed decision-making subject. Ideal drivers are constructed as being aware of and as thoroughly knowing their driving self (self-aware), keeping themselves and others safe (responsible), and calculating the effects of their decisions and taking informed action (rational and informed). The discourse requires that aging subjects adopt this subjectivity; this is constructed by
drawing upon the authority of a technico-scientific risk rationality as the only way to ensure one’s position as a safe driver. As shown, the imperative and goal for aging drivers to achieve and work towards that is produced within the brochures is to:

help you become, if you are not already, an ‘activated driver’. An activated driver is someone who assumes responsibility for his or her own driving skills and who self examines and compares his or her ability with the requirements for safe driving. Through knowledge and self awareness, you will understand what a safe driver is and will assume the responsibility to be a safe driver. On the other hand, you may decide that your driving poses a risk and decide to give up your driver’s licence and seek other forms of transportation (D, p.6).

Considering all three key characteristics together (self-awareness, responsibility, rational and informed action), the ideal aging driver emerges in essence as a risk-averse subject who strives for maximal safety, guided by expert knowledge and a moral will for safety. That is, the discourse privileges a rational and responsible actor, who, based on up-to-date risk information and expertise, engages in individual risk assessment, makes every effort to minimize personal risk, maximizes safety, and constantly monitors potential risks.

One finding of this critical discourse analysis is that this ideal subjectivity of the ‘activated driver’ privileged within the dominant discourse is in many ways consistent with notions of ‘good’ neoliberal citizenship. Neo-liberalism can be understood as a set of political rationalities that stress a form of governmentality that,

invokes a concept of the human subject as an autonomous, individualised, self-directing, decision-making agent at the heart of policy-making (Bondi, 2005, p. 497).

As outlined within the methodology chapter, contemporary governmental power is not exercised by repressing individual subjects; it is rather ‘subjectifying’ in that it “constructs individuals capable of choice and action, shapes them as active subjects, and seeks to align their choices with the objectives of governing authorities”(Garland, 1997, p. 175). Ideal neo-liberal citizens, as constructed within and through neo-liberal political rationalities are autonomous, active, and rational individuals who are able and willing to govern themselves responsibly and in line with neoliberal goals and values. Neoliberal rationality, to Lemke (2001),
aspires to construct prudent subjects whose moral quality is based on the fact that they rationally assess the costs and benefits of a certain act as opposed to other alternative acts. As the choice of options for action is (...) the expression of free will on the basis of a self-determined decision, the consequences of the action are borne by the subject alone, who is also solely responsible for them. This strategy can be deployed in all sorts of areas and leads to areas of social responsibility becoming a matter of personal provisions (p.201).

Such moral quality was dominant within the texts. It was constructed by underlining the danger one could become to others and to public safety. Texts, for example, asked if individuals have made ‘the’ choice to restrict their driving, implying that it is a choice to become a responsible and safe driver.

Within the aging driver discourse, activated aging drivers are idealized as taking care, working upon, and managing their risk status in order to avoid becoming a risky driver. For instance, in line with neo-liberal citizenship, ideal driver citizens are promoted as mobile and flexible subjects; they move towards places that offer options for car-less mobility, so that they can self-regulate and give up their driving. As Packer states, “beyond the economic realms of production and consumption, a good citizen means to be a self-empowered mobile citizen” (Packer, 2008, p. 5). The identified discourse produces an ideal subject that remains auto-mobile without driving - in the sense that ideal driver citizens are expected to be autonomously mobile and to have proactively ensured ‘their’ mobility choices (“This way, you can control your own mobility choices to maintain your independence and safety”, X, p.17). Rose argues that formations of citizenship are not new but,

what is perhaps novel is the attention paid to citizens as autonomous individuals who must actively construct a life through the practical choices they make about their conduct, and who must bear individual responsibility for the nature and consequences of those choices (N. Rose, 1999, p. 190).

As illustrated, the identified discourse identified constructs the expectation that subjects, when they get closer to the ‘natural end of their driving life’, should want and should have the resources to move towards age-friendly areas that offer car-less mobility and public transportation. In turn, mobility is constructed as an individual, not social, responsibility. The findings suggest that the aging driver discourse not only governs driving in later life; it also governs mobility in later life in that it privileges the idea of
mobility as an individual enterprise. Mobility is constructed as consisting out of the ‘mobility options’ that aging individuals have made available to themselves, based on ‘right’ choices and pre-planning. Individualizing mobility constructs immobility in later life as a matter of personal failure, obscuring broader social conditions of mobility (Freund & Martin, 1997a), as well as inequalities in means to enact the mandated responsibility.

Governmentality scholars have noted that the mobilization of individualized risk (Webb, 2006) is an intrinsic part of neo-liberal rationalities. Risk, as demonstrated in this study invokes self-government, since it locates problems within individuals, who, in turn, become responsible for risk-reducing action. However, as also shown, a technico-scientific risk rationality sets narrow boundaries in relation to what can and should be done about the risk. Risk also detaches experts from direct intervention into personal lives (Castel, 1991) while at the same time enlisting people to take care of themselves, based on expert knowledge and advice, in order to avoid the outlined misfortune. Therefore, the construction of seemingly neutral risk-problems enables a space to carve out how individuals should govern themselves. Neo-liberalism, “creates the climate of risk in order to justify its overall politic” (Culpitt, 1999, p. 55) and encourages people to manage their risk and lives themselves by calling “upon the individual to enter into the process of his or her self-governance through endless processes of self-examination, self-care, and self-improvement (Petersen, 1997, p. 194). This study showed how different knowledge assemblages promote these processes and assign the responsibility for driving safety to the aging individual.

7.2.2 The risky driver

One key way in which the ideal driver subjectivity became constructed as desirable within the discourse was by contrasting it with the non-ideal, risky other. Consistent with the broader division between good neoliberal citizens, who have the right to self-govern, and failed neoliberal citizens, who require governing by others (Rose, 1999), ideal and non-ideal subjectivities are separated in the texts via the extent to which they can and are willing to take up the ‘right’ mode of self-governance.
Within the aging driver discourse, aging subjects are configured into two groups. One group is configured as the risk-aware, risk-responsible, and actively risk reducing aging driver citizen who is able to rationally master and defer personal desires for the sake of public safety. Non-ideal subjectivities emerge as irresponsible, selfish, passive, or not skilful enough. They are configured as the risky ‘other’. The construction of and division between ‘good’ aging citizens capable of governing themselves responsibly and ‘flawed’ citizens who are not able or who resist self-governance is a central element of neoliberal forms of government. In the aging driver discourse, the ‘risky old driver’ subjectivity plays a powerful role in activating and mobilizing aging subjects, both as individuals but also as collectives. Risk technologies work upon the fear of becoming the subjectivity of the risky other, who is constructed as someone who has neither his car nor himself under control and who is a dangerous individual to the safety of others. As articulated by Hier (2008), the use of risk to outline and promote ethical conduct is a broader technique of governing:

| discourses that call upon individuals to engage in forms of ethical self-conduct to manage risk are often transposed into collectivizing discourses of risk management that take the form of defensive group reactions against what is represented as a more immediate dimension of harm posed by ‘irresponsible’ (i.e., dangerous, uncertain) others (p. 175). |

The constructed ‘risky other’ within the aging driver discourse aligns with the construction of failed citizens in neoliberalism, constructed as “those who are unable or unwilling to enterprise their lives or manage their own risk, incapable of exercising responsible self-government” (N. Rose, 1996a, p. 347). This construction shifts social responsibility onto individuals and can lead to victim-blaming, since it obscures structural inequalities in economic resources, safe and health supporting environments, and accessible transportation. As Bauman (1996) states, in a neoliberal, consumer society, choosing is everybody's fate, but the ranges of realistic choices differ, and so the supplies of resources needed to make them. It is the individual responsibility for choice that is equally distributed, not the individually owned means to act on that responsibility (p. 88, original emphasis).
7.2.3 Technologies of the self

In the second findings chapter, I also presented several ideal practices in which aging drivers are asked to enlist in order to transform themselves into responsible and ‘activated drivers’. Engaging in these practices is constructed as having become aware of one’s driving self and protecting it from evolving into a ‘risky self’ by working upon one’s body and driving. Suggested practices to govern one’s aging body were: 1. monitoring the body and its intakes; 2. maintaining the body by working on it; 3. maximizing the body by adopting a healthy lifestyle. Suggested practices to govern one’s driving were: 1. upgrading one’s driving knowledge and car; 2. adapting one’s driving by changing driving habits; 3. planning for one’s driving retirement; and 4. withdrawing one’s self from driving in time. Taking a governmentality perspective, these ‘good practices to maintain driving fitness’ can be identified as ‘technologies of the self’; they are reflective of, and ways to work towards, the aspired ‘activated driver’ subjectivity.

To reiterate, technologies of the self become a specific focus in governmentality as it is through these that people govern themselves and their everyday conduct in particular ways towards particular ends. Technologies of the self, as Garland (1997) states, are the link between “the various ways of freely becoming one’s self, and the governing authorities who promote these forms of selfhood as a means to political ends” (p.176). Self technologies operate by offering individuals to pursue “a certain number of operations on their own bodies, souls, thoughts, conduct and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immorality” (Foucault, 1988, p. 18), or as in the case of the aging driver, being ‘free from risk’. However, like happiness or wisdom, attaining full freedom from risk is never possible and therefore always needs to be worked at. Moreover, as the future is uncertain, one is always at risk for something, and once a risk is brought into existence, it cannot be un-thought. Aging drivers, within the constructed problematization, are never ‘off’ risk, but they are offered the possibility to work on themselves and their driving to hold their at-risk position as long as possible (“Upgrade you driving skills and knowledge to extend the number of years you can spend safely behind the wheel”, X, p.3). The ideal aging driver practices identified through this study are more than neutral advice, they are
‘self-steering practices’ (N. Rose, 1996b) through which aging individuals not only
govern themselves, but also come to know, experience, monitor, judge and relate to
themselves in certain ways, that is, as aging drivers. As N. Rose (1996b) states:

Technologies of the self take the form of elaboration of certain techniques for the
conduct of one’s self, for example requiring one to relate to oneself epistemologically (know yourself), despotically (master yourself) or in other ways (care for yourself). They are embodied in particular practices (confession, diary writing, group discussion, the twelve steps of Alcoholics Anonymous). And they are always practiced under the actual or imagined authority of some system of truth and some authoritative individual (p.135, emphasis added).

The technologies of self identified in this study can be seen as aligning with Rose’s example of various types of self-technologies. For instance, aging drivers are called to ‘see’, or know, themselves in ways they might not have considered themselves before. They are also called to master themselves according to the moral imperative of safety, such as by self-limiting their driving, although they might desire otherwise. As well, they are called to take action to take care of themselves, such as by working on their aging bodies.

In this study, the ‘system of truth’ that informs the promoted ways of relating to and
working upon oneself is a technico-scientific risk rationality. That is, this study has
demonstrated how risk shapes particular technologies of the self through which
individuals are called to work towards the ideal aging driver subjectivity and thus
conform to broader political objectives. I have illustrated how the risk rationality is
repeated within the above technologies of the self: know thyself, confess to thyself (adopt
the risk position), master the self (master yourself rationally and responsibly to reduce
risk), and take care of the self (monitor the risk, engage in risk prevention).

7.3 Governing occupation through risk

Another key objective of this study was to advance understanding of how occupation is
governed through risk. Although it has to be acknowledged that the findings of this study
are confined to one occupation, as constructed in specific materials and within a
Canadian context, I argue that the presented findings can be drawn upon to raise insights
into the governance of occupation through risk that warrant further investigation and
consideration. In this section, I discuss three key insights pertaining to occupation and risk that arise out of this study’s findings, and consider social, moral, and theoretical implications of these findings.

First, I deal with insights pertaining to occupation as a site of governance, and a means of self-governing. Second, I raise concerns related to how occupational possibilities might be more broadly shaped ‘in the name of risk’ and what effects this might have. Third, the findings of this study attend to how subjectivities can be predicated on engagement in a specific occupation. By taking a governmentality perspective and attending to the discursive shaping of subjectivities within particular rationalities, this study points to one way forward in extending current conceptualizations of the concept of occupational identity.

7.3.1 Occupation as a site and technology of governing

The governmentality perspective taken in this study raises questions related to how individual and collective occupation is governed in ways that draw upon risk discourses. As well, it raises questions regarding how occupation is shaped, guided or directed towards certain ends, including how it is implicated in the discursive construction and enactment of subjectivities and their occupational possibilities. Within the texts analyzed, occupation was positioned in relation to risk as both, a site for the exercise of government and a technology through which the self can be governed. As stated, when considering risk from a governmentality perspective, risk:

\[\text{is not regarded as intrinsically real, but as a particular way in which problems are viewed or imagined and dealt with. In such work, the interest not only is in the diversity of forms taken by risk, but also with their political and moral implications. (Rose, O'Malley, & Valverde, 2006, p. 95).}\]

Thus, it is important to consider the political and moral implications that arise when risk discourses are drawn upon in ways that construct occupation as a site and technology of governing. While scholars have highlighted the body, mind, or brain as a governmental space (Nadesan, 2008), few have looked specifically at occupation as a ‘governmental space’. By examining the discursive construction of ‘driving in later life’ within brochures addressing aging drivers and their families, this study’s findings illustrate how
a particular occupation is governed ‘at a distance’ from the state and through subjectivity in ways that align with neoliberal political rationality. As such, this study’s findings support work that has suggested that “occupation, like subjectivity, is an essential object and target of contemporary technologies of government” (Laliberte Rudman, 2012, p. 110). In the information brochures analyzed for this study and distributed by various Canadian agents, the occupation of driving was constructed as a risk object and site for self-governing. Aging drivers were called upon to take care of their bodies and driving to conduct this occupation in particular ways so as to minimize risk to themselves, others and society. They were also enlisted to self-exclude themselves from this occupation, ‘when it is time’, based on expert advice. These findings highlight the socio-political situatedness of occupation, and raise questions regarding how governing may occur more generally through occupation (Laliberte Rudman, 2010, 2012).

Therefore, this study points to the potential fruitfulness of further studying how various occupations, especially those defined as risky, unhealthy, or undesirable, emerge as sites for the enactment of governing of citizens in ways that align with neoliberal emphases on self-reliance, responsibility and risk aversion. In turn, it is vital to critically consider how modes of governing may occur in ways that limit the occupational possibilities of and marginalize particular types of subjects, particularly those whose social conditions, resources or health state make it extremely difficult to self-govern their occupations in ways that align with idealized subjectivities and associated technologies for the self. For instance, texts claimed that “with a good transportation plan, retiring from driving DOES NOT mean retiring from life” (X, p.20), assuming equal resources to do so. This privileged truth, circulated through all texts, constructs negative consequences from driving cessation such as social isolation, occupational deprivation, or depression as a matter of failed planning and self-governance, and not as, for instance, as a matter structural differences in public transportation and in social quality, or ‘walk-ability’ of living environments. Thus, the inequities in occupational possibilities that may arise between those with the resources to take up technologies to avoid risk and maintain driving for as long as possible and those without such resources are obscured. As this study illustrates, the aging driver discourse not only constructs a current occupation as a site of governing, but also constructs an ideal driver, who prudently and proactively
secures his or her occupational possibilities for a car-less future often through consumer purchases. Again, a differential of economic resources of aging subjects to engage in such prudential action is neglected. Thus, foregrounding occupation as a governmental space, rather than studying a subject’s or group’s occupations as ‘naturally’ occurring or self-directed, can contribute to an understanding of how inequities in occupational possibilities are maintained and produced, such as a division between the ‘occupation-rich’ and ‘occupation-poor’ in old age.

The findings also illustrated how everyday occupation was deployed as a technology of governing. As demonstrated, being an ‘activated driver’ requires responsibly taking up and enacting a range of self-technologies tied to risk assessment and risk management. This includes exercising, routinely seeking medical exams, working upon an individual transportation plan, actively building resources for driving retirement, or continuously keeping informed through acquiring health information and expert collaboration. I suggest that some of these self-technologies to enact responsible driving and citizenship can be considered as occupations; that is, they become a regular part of everyday activity, occupy time, have a meaning and purpose, and include things that people need, want, and are expected to do to. The occupations promoted in the texts are not randomly suggested, but are those framed as necessary to take care of the self; they are constructed as self ‘works’ and projects, such as information work, body work, planning work, and resource building work. Thus, specific occupations, tied to these works, are offered up within the texts as technologies of the self, as means in which responsible subjects enlist themselves in order to work towards an idealized subjectivity, responsible citizenship and to fulfill the duty to not become a risky subject.

I suggest that considering and investigating occupations as self-technologies can also be a beneficial step to further knowledge development in occupational science. For instance, future research could investigate what types of occupations are constructed as ideal, possible, or obligated for particular types of subjects, as well as how such occupations emerge as means for subjects to work towards particular idealized outcomes such as risk avoidance, enacting responsibility, or self-monitoring. Drawing upon governmentality analysis and focusing on occupations tied to, expected and characteristic of specific
subjectivities would move scholarship forward in understanding the political and situated nature of occupation, such as how occupations reinforce, produce and shape particular power relations. For instance, this study illustrates how driving is discursively configured as primarily an individual occupation that requires engagement in practices based on measurable and objective, and supposedly apolitical, knowledge of risks, rather than as a social occupation that organizes (and is organized by) social spaces, relationships and environments in ways that privilege some social groups at the cost of others.

7.3.2 Riskifying occupation

At the beginning of this thesis, I outlined several reasons why it is important for occupational science to attend to risk in the study of occupation, pointing to the increasing pervasiveness of notions of risk in everyday life, the frequent and strong link to ‘doing’ in risk conceptualizations, the political nature of risk problematizations, and concerns about the increasing variety of efforts to conceive and address social problems in terms of risk and to make people individually accountable for risks (Baker & Simon, 2002; Denney, 2005). The findings of this study support the importance of critically attending to how risk is taken up to problematize occupation. This study illustrates how the logic of risk is deployed to shape an occupation of a particular group of people in ways that individualize and download responsibility for this occupation.

From a governmentality perspective, the riskification of occupation can be understood as a power strategy; it connects a technico-scientific risk rationality with forms of social regulation and individual self-control. For example, in the brochures analyzed, the potential for accident risk, combined with predicted demographic changes, is taken up to call upon aging drivers to understand themselves as being at risk and to monitor and self-restrict their driving as a means of risk-reduction. In a parallel manner, Ballinger, in an ethnographic study of a day hospital for older people, has shown how the occupation ‘walking’ becomes riskified through a predominant scientific/biomedical discourse in ways that produced moral expectations of safe conduct, institutional rules and routines, and power relations between patients and experts. For instance, patients expressed their understanding that they needed to inform staff members if they intended to walk, such as to use the bathroom. Scientific/biomedical ideas about risk discouraged the older
individuals’ independent activity, as this did not align with ‘good patient’ subjectivities. However, risky walking transformed into safe walking if it was monitored by experts or a medium of treatment (Ballinger & Payne, 2000).

Riskification also creates particular categories of people through what they do or what they fail to do. For example, within the discourse of the aging driver analyzed, risk is drawn upon to separate aging subjects into two groups: responsible activated drivers capable of and deserving of the freedom to self-govern their occupation, and aging subjects whose irresponsibility and riskiness justifies the need for governing by others. Riskifying occupation, and individuals due to their occupations, objectifies and divides certain occupations and subjects from a supposed normal majority. Higgs (1998) states that,

The utilization of the technologies of risk also performs another crucial function, namely the identification of ‘risky’ groups or individuals who refuse or are incapable of adequately undertaking technologies of the self; a distinction Dean (1995) describes as between the civilized and the ‘marginalized’ (p. 190).

Identifying someone as being ‘at risk’ due to their occupation (or absence of) spotlights the individual and not the structural factors that might place someone at risk and shape possibilities to engage in occupation in the first place. Accordingly, such labelling implies a need to change the individual, who becomes identified as ‘deficient’ or ‘disadvantaged’ and is often blamed for being ‘irresponsible’. This raises concerns about the discriminatory and victim-blaming potential in the riskification of occupation. As Lupton states “risk discourse tends to assume universal experience and ignores social differentiations, such as ethnicity and social class” (Lupton, 85). Freund and Martin (1997b), for instance, have illustrated how traffic safety discourses ignore social and systemic factors, such as inequalities in vehicle material, road conditions and accident vulnerability. Similarly, Prior (1995) analyzing accidents, found that ‘safe environments’ are unevenly distributed. People in structurally disadvantaged positions thus might have little choice in restricting or fully withdrawing from driving, regardless of their risk knowledge about driving risk, personal concern and moral values. For some, the risk of being cut off from social participation or the necessities of groceries might be a greater risk than accident risk (see e.g., Laliberte Rudman et al., 2010).
The scoping review presented in chapter two showed that the riskification of occupation also occurs in the occupation-based literature, and in how it operates to define and target those in need of expertise, enablement, risk information or re-skilling, provided by occupational experts. For example, within this literature, particular ways and patterns of doing occupation were framed as indicators of risk and were, in turn, used to frame individuals or collectives associated with these ways and patterns of doing as in need of professional intervention. Riskification is a practice that leads to objectifying and de-contextualizing occupation. In turn, problematizing occupation within a technico-scientific risk logic tends to frame engaging in occupation as risky or healthy ‘behaviour’ and lifestyle ‘choice; which can, and should, be altered by rational, informed subjects. This tendency was visible also in the occupation-based literature, which sometimes focused on and reduced occupation to an individual’s behaviour, such as ‘physical activity behaviour’, ‘driving behaviour’, ‘sedentary behaviour’. The concern becomes that, at the same time that certain occupations and ways of doing occupation, become constructed as ‘right’, moral, and ideal, other types of occupations and ways of doing occupation become constructed as risky, immoral, and non-ideal. Thus, the question arises as what occupational possibilities are opened up and closed down, and for whom, when occupation is riskified.

Moreover, the strong dominance of a technico-scientific perspective in research addressing occupation and risk may inadvertently perpetuate and support the governing of occupation in ways that align with the individualization and responsibilization agenda of neo-liberal rationalities, and fail to consider how risks and opportunities to attend to them are socio-politically constructed. To provide an intriguing example: although the topic of the scoping review presented in chapter two, was not the aging driver, the included articles, related to driving, echoed the aging driver discourse traced in the brochures strongly. One research study, for instance, included in this scoping review, introduced the aging driving problem in the following way:

Many depend on driving to maintain their mobility, independence, and social participation… However, driving is a complex task that requires the interaction of visual, cognitive, and motor skills to perform even basic maneuvers, such as braking and steering. A change in any of these skills can affect driving safety… (Vrkljjan et al., 2010, pp. 259, emphasis added).
Informed by a technico-scientific risk rationality, the above research study accordingly develops an information toolkit for consumers to lessen their information gaps and optimize their driving safety. While individual information might be helpful, this thesis demonstrated how a dominant technico-scientific risk perspective in current occupation-based research might - maybe unwillingly or unknowingly - serve and perpetuate political rationalities and power relations that reinforce occupational injustice in that it individualizes occupation and responsibilizes people for their occupational possibilities. (Angell, 2012; Laliberte Rudman, 2010; Townsend, 2012). This study has shown how the aging driver discourse frames occupation in old age as a personal enterprise and personal responsibility.

7.3.3 Occupation and subjectivity

As outlined in chapter three, a governmentality perspective views the subject, not as a distinct entity or as one oppressed by power relations, but as an effect of power/knowledge and constituted in discourse. This analytic perspective also focuses on how people actualize and articulate themselves as subjects, by taking part in, (re)producing and transforming power relations; that is, individuals “generate themselves performatively, but their performances are bound into orders of knowledge, lines of force and power relations” (Bröckling et al., 2011a). A unique contribution of this study is that it deconstructed the discursive production of a subjectivity that is predicated on engagement in a particular occupation. This provides insights regarding how occupations can be socially shaped in relation to subject positions and available subjectivities.

As argued in chapter one, current critiques of the concept of occupational identity within the occupational therapy and occupational science literature have highlighted how current conceptualizations assume an autonomous individual at the core of the concept; place individuals as in control over their identity; neglect the notion of multiple and collective identities; emphasize occupation as freely chosen to achieve a particular identity; and are largely based on western cultural assumptions, such as productivity, mastery, goal, and future orientation (Laliberte Rudman & Dennhardt, 2008; Phelan & Kinsella, 2009a). As illustrated, a governmentality perspective is particularly suitable for addressing these critiques as it shifts the attention away from individualistic frameworks to the power...
relations that make particular subjectivities intelligible. For instance, this study challenges the idea of free choice with regard to one’s driving. While subjects are free to choose if they want to transform themselves into activated drivers or not, the discourse also underlines that only activated drivers are safe drivers. As well, activated drivers, autonomous and self-sufficient, are free to make choices how they conduct their driving, but only particular choices are considered as responsible, safe, and a sign of self-mastery and good citizenship (“Have you made the choice to regulate your own driving by...”, X, p.15). Making other choices is discursively constructed as having become a ‘risky other’, who is not capable of self-governance. Therefore, I suggest focusing on “identity as subject position and subjectivities” (Barnard-Wills, 2012, p. 127). To understand how occupations become socio-politically constructed and possible in their relation to particular subjectivities, provides a fruitful means to expand current work addressing occupational identity and the relation between occupation and identity.

In summary, this study’s findings highlight occupation as a governmental space, a technology of governing and as governed through risk. The findings raise questions about the social consequences of the prevalence of risk in re-shaping occupations and subjectivities in relation to occupation. Risk rationalities and technologies, circulating in ways that align with the individualization, responsibilization and activation agenda of neoliberal rationalities, have the potential to re-configure, bodies, subjectivities, and occupations in ways that produce and reinforce unequal subject positions and power relations.

7.3.4 Conclusion

This governmentality-informed critical discourse analysis contributes an example of how occupation can be governed through risk, and how ‘governing through freedom’ can be directed by deploying a technico-scientific risk rationality. As such, this study adds to existing research on occupation and risk by stepping outside a technico-scientific perspective on risk and employing a governmentality perspective. Interestingly, this ‘step outside’ became one of also turning in, in that this study raises concerns regarding the pervasiveness of a technico-scientific perspective on risk within contemporary discourses and within occupational science and occupational therapy.
Governmentality scholars have stressed a “need to study the humble and mundane mechanisms by which authorities seek to instantiate government” (N. Rose & Miller, 1992, p. 183) and to shift focus from privileging the analysis of policy discourses to the ‘messy actualities’ of particular neo-liberal projects, such as the governance of later life mobility (Brady, 2011; Larner, 2009; O'Malley, Weir, & Clifford, 1997). It is a contribution of this study that it attends to these calls by studying a mundane everyday occupation from a governmentality-informed perspective. This study exposes main discursive mechanisms through which aging individuals are encouraged to objectify their driving and subjugate themselves to a technico-scientific risk logic and to take up an activated driver subjectivity that aligns well with neoliberal modes of government. The three knowledge assemblages have shown how privileged knowledges are intrinsically related, inform each other, and promote an ideal aging driver subjectivity and particular technologies of the self. Therefore, this study contributes understanding of how micro-technologies of power, such as the self-technologies presented, may constitute certain occupations and occupational conduct within particular socio-political contexts.

At the same time, this study did not address how the information brochures, and the discourse that they produce and circulate, are actually interpreted and taken up by aging subjects in their everyday lives. This was not the intention and scope of the presented study. However, investigating of how aging drivers take up this discourse in their daily occupations could be an interesting and fruitful next step in this line of research. Indeed, Peterson, with regard to health risk discourses, argued that there has been “relatively little exploration of the processes of self-subjugation associated with the multiple imperatives of public health” (Petersen, 1997, p. 203).

As noted within the introductory chapter of this thesis, there have been many recent calls within occupational science to develop and enact its “undeveloped critical potential to raise insights and questions about the organization of occupation” (Townsend, 2012). This thesis responds to such calls and demonstrates the contributions that can be made by work informed by a governmentality perspective. For instance, focusing on risk as a rationality and technology of governing has raised insights regarding how occupation may be a site of contemporary governing. This study has shown how the discursive
production of the occupational subjectivity of an ‘aging driver’ as a special, separate, and deviant being that has specific moral responsibilities, might have a discursive power that has increasing potential to marginalize aging individuals and to frame ill-health, dependency, and other parts of human life as something from which subjects need, and should, abstain themselves. Through investigating the occupation of driving and the aging individual, this study revealed how risk operates in outlining occupational problems and subsequent possibilities for ‘responsible’ occupational engagement. Through this work, I have raised concerns regarding how the uncritical promotion and perpetuation of a technico-scientific, biomedical, and individualized model of driving constitutes driving and its risks as individual responsibilities, obscuring collective responses.

I began this thesis with a concern regarding how the popularity of risk-management, assessment techniques and the increasing ‘risk and safety approach’ within contemporary society may shape occupational possibilities in ways that limit occupational engagement. Instead of just asking how we can manage risks related to occupation, occupational scientists need to ask and address, what Fooks calls, the ‘harder questions’, such as ‘Risk-management for what and for whom?’ (Fook, 2002). I agree with Fook (2002) who states that discourses

are powerful often because they are unquestioned and all players, even those who do not benefit, accept them. In this sense their power lies in the degree to which they are unquestioned (...) Therein lies the critical potential of a discourse (and therefore power) analysis (p. 89).

As such, I view the work presented in this thesis, which is to my knowledge, the first critical analysis of the ‘aging driver problem’, as an invitation and tool to ask questions about this particular problematization but, also more broadly, about how various occupations are problematized and shaped via risk.
References


CARP Canada's Association for the Fifty-Plus. (N.D.). Drive wise: A free driver refresher seminar for seniors. Toronto: CARP.


Ministry of Transportation Ontario (MTO). (N.D.). *Senior driver: Group education*. Ontario: MTO.


Appendices

Appendix A: Publisher permission

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<tr>
<th>Name</th>
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<th>Ontology</th>
<th>Major Theorists</th>
<th>Potential Research Foci for Occupational Science</th>
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</table>
| Techno-scientific   | Realist               | • Risk is an objective phenomenon that can be measured, identified and calculated  
• Risk exists independently of social-cultural processes, although they can bias the perception of risk | Multiple, no specific one | What risks to humans are associated with specific occupations? How should risks related to an individual’s occupations be assessed and managed? How can individuals be encouraged to make occupational choices that reduce risks? |
| Risk Society        | Weak constructionist  | • Objective risks exist, but knowledge about risks is influenced by social-cultural-political processes  
• Many risks are ‘man-made’, they are a unleashed by modernity’s unlimited drive for progress  
• Risk represents a meta-narrative of our times; we live in an age of ‘manufactured uncertainty’ | Bedd (1992)  
Giddens (1990) | What is the relationship of risk and occupation in late modernity? How does the breakdown of securities related to one’s occupations within processes of de-traditionalization and individualization influence how people convey and construct their occupational identities? How does living in a risk society shape one’s occupational repertoire? |
| Cultural-symbolic   | Strong constructionist| • Risks are socially selected and constructed  
• What is selected as a risk is influenced by a group’s social structure  
• Risks are a means to ensure social and individual boundaries | Douglas (1992) | Why are some occupations selected as risky and others not? How does risk function in maintaining and conveying a group’s values – such as health – through occupations? How is risk utilized to blame people who pursue occupations that are ‘other’ than the normative? What is the social context in which particular occupations become valued as ‘risky’ or ‘safe’? |
| Governmentality     | Strong constructionist| • Risks are a fully human construction, they are product of historical, social and political processes  
• Risk is mobilized as a technique to govern individuals that attempts to shape rational, responsible, and independent citizens | Dean (2010)  
Castel (1991)  
Ericson (1997)  
Ewald (1991)  
Rose (1999)  
O’Malley (2000) | How do discourses about risk and related practices operate in the construction of subjectivity and social life through occupation? Who benefits by encouraging individuals to make particular occupational choices framed as responsible in the name of risk? How have risks and occupations come to be constructed differently in varying political contexts or across historical times? |

(Adapted from Lupton 1999)
Appendix C: Included articles


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<td>Government</td>
<td>Ontario</td>
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<td>“Keeping on the go: Driving safely as you age - Information for older adults” (2009)</td>
<td>Canadian Association of Occupational Therapists (CAOT)</td>
<td>Association of Health Care Professionals</td>
<td>Canada</td>
<td>Pamphlet (9 p.)</td>
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<td>“Transportation Cost Sheet” (N.D.)</td>
<td>The Hartford</td>
<td>Insurance</td>
<td>USA and Canada*</td>
<td>Worksheet (1 p.)</td>
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<td>“Getting There’ Worksheet” (N.D.)</td>
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<td>Insurance</td>
<td>USA and Canada*</td>
<td>Worksheet (2 p.)</td>
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<td>CARP Canada's Association for the Fifty-Plus</td>
<td>Senior’s Association</td>
<td>Ontario</td>
<td>Pamphlet about the seminar (8p.)</td>
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<td>X</td>
<td>“Tips for Aging Drivers: Sound advice on sustaining the independence and mobility of aging drivers” (2011)</td>
<td>Alberta Motor Association (AMA)</td>
<td>Automobile Association</td>
<td>Alberta</td>
<td>Booklet (21 p.)</td>
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*Note: While authorship locates the booklets in the USA, the booklets include a visible remark on their back page that they are “Funded through (...) AAA and CAA and their members”. The booklet is also advertised by and distributed in Canada by CAA (e.g. in Alberta)
Appendix E: Initial analysis sheet
(adapted from Jäger & Maier, 2009; Laliberte Rudman, 2003)

1. Bibliographical data:
   Endnote #:
   
   Title:
   
   Date of publication:
   
   Author/Institution:
   
   Type of material (e.g. leaflet, sheet, booklet):
   Date of inclusion:
   Date text was first read:

2. Contextual data:
   - How (or through which source) can the publication be accessed? (e.g. download from a webpage, sent by mail, public place, link from another website, governmental resources, …)
   - Who is the identified audience? (e.g. aging individuals themselves, families or significant others?)

3. Surface of the text
   - What is the layout like? What kinds of pictures or graphs accompany the text? (e.g. eye-catching parts, colours, fond size, text boxes…)
   - Are active tasks included or referred to in the text? (e.g. self-assessments, knowledge tests, …)
   - What headings and subheadings are used?
   - Does the text include specific symbols that convey a particular meaning? (e.g. 'stop' signs, a green traffic light, a checkmark, …)
   - How is the text structured in units of meaning?
   - What topics are touched upon in the text? (e.g. driving, healthy lifestyle, aging, body changes, demographic changes, public safety, costs, policies, independence, responsibility, mobility …)
   - What topics are absent? (e.g. living in a rural areas, auto-centered society, financial and personal costs of alternatives, …)
   - How do these topics relate to each other and overlap? (e.g. healthy living as a prerequisite of driving ability, demographic changes as posing a public safety problem, …)
4. **Problematization:**
   - What is being problematized? (individual and/or public safety, injuries, decrease of driving quality in older adults, ...)
   - Where is the problem localized? (e.g. in the aging body, in the (ir)responsible subject, in the driving environment, etc.)
   - Who is addressed as having power to ‘fix’ the outlined problem? (the reader, society, medical experts, researchers, car producers...)
   - What perspective regarding the future does the text give? (e.g. positive, alarmist, need to prepare...)
   - What goals are to be achieved? (for aging drivers, for society, ...)

5. **Power relations**
   - Who is defining, identifying, or assessing the problem and based on what? (e.g. experts, aging subjects, relatives, significant others...)
   - Who is addressed as having power to ‘fix’ the outlined problem and based on what? (e.g. the individual reader, society, medical experts, ...)
   - What actors are mentioned in the text, and how are they portrayed? (e.g. families, health professionals, risky drivers, ...; which attributes are used, ...)
   - Who is called upon to seek advice and from whom? (e.g. the reader, relatives, neighbours, ...)
   - Who is likely to benefit from the discourse as conveyed within this text?
   - Who is included within this text and who is not?
   - What potential problems are silenced and how?

6. **Knowledge and expertise**
   - What forms of knowledge does the text refer to? (e.g. medical knowledge, research, references to driving experts, experience, tacit-knowledge...)
   - How is this knowledge referred to? (e.g. proving, helping, enabling, not ‘true’,... e.g. statistical knowledge as giving insight into the predicted problem, up-to-date information as able to reduce risk)
   - Who is giving advice? On what expertise or grounds? (e.g. outlined credentials, profession, experience, ...?)

7. **The occupation driving**
   - How is driving conceptualized and conveyed in the text? What are the conditions that frame the way it is constructed? What is absent with regard to driving? (e.g. is driving conveyed as an individual or social occupation, a ‘right or privilege’, embodied, rational, necessary, a choice...)


• How is the importance of driving in everyday life conceptualized? How is the importance of driving in later life described?
• How does the quality and quantity of driving changes in connection with other concepts (e.g. age, health, daylight, environment, …?)
• What kind of relationship are subjects called to take towards their driving?
• Are subjects called to act upon their driving? How? (e.g. are there certain driving practices that subjects are called to take on?)
• How is driving and driving cessation referred to? (e.g. behind the wheel, driving retirement, giving up the keys,…)

8. The aging body
• How is the body conceptualized and conveyed in the text? (e.g. mind/body split?, as a collection of functions?, from a biomedical perspective?) Who has expertise to do so?
• What kind of relationship are subjects called to take towards their bodies? (e.g. caring, staying in control of, overcoming, improving…)
• Are there certain body practices that subjects are called to engage in? Why?
• How is the body related to driving? (e.g. a requirement, to be protected, demanding specific functions,…) How is driving related to the body?
• How is the body related to aging? (e.g. are certain functional changes a sign of aging?,….) How is aging related to the body?
• How does the quality and quantity of the body and its functions changes in connection with other concepts (e.g. age, healthy living, risk …; enhancing, endangering, changing, …?)

9. Subjectivity
• What kind of subjectivity is produced with regard to the aging driver?
  o How is the common/normal/typical aging driver described and assumed to be?
  o How is the ideal aging driver conceptualized?
  o How is the non-ideal aging driver conceptualized?
• What kind of subjectivity is produced with regard to aging subjects?
• What kind of subjectivity is produced with regard to risk? (e.g. risk avoidant citizen, managing individual risks ahead)
• What kind of subjectivity does the text presuppose with regard to the reader? (e.g. rational, responsible, needs information or made to be aware of a problem, benefits from ‘tips’ and steps to follow…)
• What kind of relationship between society and subject does the text suggest and convey?
10. Solution frames
- What technologies and practices of the self are the targeted audience called upon to participate in? (e.g. self-assess driving ‘fitness’, seek medical advice,…?)
- How does the suggested advice and practices solve problems - if taken up? What does it solve?

11. Rationalities
- How is risk addressed or referred to within the text? How is safety addressed or referred to?
- What concept of risk does the text presuppose and convey? (e.g. technico-scientific, socio-cultural,…)
- Are and how are processes of riskification drawn upon?
- What other rationalities does the text refer to (or bring in)? (e.g. responsibilization, individualization,…)

12. Rhetorical means:
- What kind of argumentation does the text follow? What argumentation strategy and rationalities are used? (e.g. responsibilization, raising self-awareness and self-reflection of the own driving performance and potential changes,…)
- What logic underlies the composition of the text? (e.g. risks can be controlled, if people are informed and take action…)
- What collective symbolism is used? (e.g. linguistic and graphic, involving for example, statistics, photographs, pictures, caricatures, recent events, and inter-textual elements such as the ‘aging tsunami’,…)
- What idioms, sayings and clichés are used and what do they convey? (e.g. ‘Better safe than sorry!’, ‘driving retirement’…)
- What are vocabulary and style?
- What actors are mentioned, and how are they portrayed? (persons, pronouns used,…)
- What references are made within the text? (e.g. to science, the source of knowledge used, successful aging…)

13. Other peculiarities of the texts?
- Are there unique things about this text? (e.g. what was surprising, unexpected, uncommon,…)
- Where you reminded of similarities/contradictions to other texts? What did you notice and why? (provide Endnote # of other texts!)

14. What is the overall message of the text?
Curriculum Vitae

Name: Silke Dennhardt

Post-secondary Education and Degrees:

The University of Western Ontario
London, Ontario, Canada
2007-2013 Ph.D.

The University of Western Ontario
London, Ontario, Canada
2004-2006 M.Sc.

HAWK Hochschule für angewandte Wissenschaft und Kunst
Hildesheim/Holzminden/Göttingen
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Hildesheim, Germany
2001-2003
B.Sc. Occupational Therapy

Annastif Hannover
School of Occupational Therapy
Hannover, Germany
1989-1992
Diploma in Occupational Therapy

Honours and Awards:

Province of Ontario Graduate Scholarship for international students (2009-2011)

School of Graduate and Postdoctoral Studies, Graduate Scholarship,
The University of Western Ontario (2007-2011)

Scholarship Ev. Studienförderungswerk Villigst, Germany,

Graduate Thesis Research Award, The University of Western Ontario (2011)


FHS Graduate Student Conference Travel Award
Great Ideas for Teaching Award 2011, Teaching Support Centre, The University of Western Ontario (2011)

Travel Grant German Association of Occupational Therapists (DVE) (2006)

Travel Grant Ev. Studienförderungswerk Villigst (2006)

Western Graduate Research Scholarship, The University of Western Ontario (2005-2006)

IGSS, International Graduate Scholarship, The University of Western Ontario (2004)

Publications:


Conference presentations (peer-reviewed):


Dennhardt, S. (2010 Oct.). “After the first two interviews, I took half a tranquilizer to go to sleep. I had too many things on my mind”: Ethical issues in narrative research. Paper presented at the Advances in Qualitative Methods Conference (AQM), International Institute for Qualitative Methodology, Vancouver, Canada.


Prodinger, B., & Dennhardt S. (2010, May). *Studying 'occupation' where the grass is greener? Internationalized accounts of occupational therapy knowledge.* Workshop held at the Conference of the World Federation of Occupational Therapy (WFOT), Chile


Dennhardt, S. (2003, Nov.). *Consumer surveys of inpatient occupational therapy services: Which quality criteria should be used from the perspective of psychiatric clients?* [German] Paper presented at the Congress of the German Society for Psychiatry, Psychotherapy and Neurology (DGPPN) in Berlin, Germany

Other scholarly work

Related Work
Teaching Assistant, School of Occupational Therapy,
The University of Western Ontario (2007-2008)

Research Assistant Dr. Laliberte-Rudman
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Occupational Therapist, Nds. Landeskrankenhaus Wunstorf,
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Seasonal Lecturer, post-graduate B.Sc. program for occupational therapists, physiotherapists and speech and language pathologists,
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Assistant Lecturer, post-graduate B.Sc. program for German Occupational Therapists at the Döpfer-Schulen in Hamburg,
Germany in cooperation with the Hogeschool Zuyd, University of Professional Education, Heerlen, Netherlands (2004)

Field work instructor and lecturer, School for Occupational Therapy, Berufsfachschule für Ergotherapie BBS in Celle,
Germany (1995-2001)