

The Delegitimisation of Smoking in Denmark and the US

Theresa Scavenius* • Rasmus Tyge Haarløv**

Abstract Tobacco smoke continues to be one of the largest causes of premature deaths on a global level. Denmark and the United States of America (US), however, represent two examples of successful transition, where the number of daily smokers has decreased significantly throughout the past 70 years. In this paper, we point out key institutional and moral entrepreneurs that paved the way for transition of the Danish and US smoking regimes. The paper investigates proponents as well as opponents of (progressive) anti-smoking legislation. We apply the theory of institutional and moral entrepreneurs to select important events and actors. In the two countries that we study in detail, Denmark and the US, we find different drivers of change: the court system in the US and institutional and moral entrepreneurs in Danish civil society. In both countries, however, the Parliament in Denmark and the Congress in the US played significant roles in maintaining and supporting the smoking regimes.

Keywords: Transition; Destabilisation; Institutional entrepreneur; Smoking

JEL Classification: I12; I18; K32

Introduction

Tobacco smoke continues to be one of the largest causes of premature deaths on a global level. It accounts for more than 7 million premature deaths worldwide annually, and while more than 6 million deaths are the result of direct usage, around 890,000 non-smokers die because they are exposed to second-hand smoke (WHO Tobacco Factsheet 2018). According to the World Health Organization (WHO), an estimated one billion people will die of tobacco-related diseases during the 21st century unless governments around the world get serious about preventing smoking consumption (Cropley 2007). In recent years, however, the worldwide consumption of tobacco smoking has declined slightly, but this development differs widely from low-income to middle-and high-income countries. Some high-income countries such as the United Kingdom (UK), Denmark and Australia have implemented a variety of advanced anti-tobacco smoking laws. But the decrease in consumption in high-income countries

Theresa Scavenius* (✉), Rasmus Tyge Haarløv**

* Associate Professor, Department of Planning, Aalborg University Copenhagen, Denmark
e-mail: theresa@plan.aau.dk

** Research Assistant, Department of Planning, Aalborg University Copenhagen, Denmark
e-mail: rh@plan.aau.dk

is almost entirely offset by the large increase of smokers in low- and middle-income countries. Most smokers now live in low- and middle-income countries and account for about 80 percent of the now more than one billion smokers worldwide. In other words, the majority of tobacco-related illnesses has moved to developing countries, which have more lax tobacco policies that enable the big tobacco companies to expand their market reach to these countries. Currently only 18 percent of the world's population is protected by anti-smoking laws and only 42 countries representing about 19 percent of the world's population meet the WTO's best practice for pictorial health warnings on cigarette packages (WHO 2018).

Denmark and the US, however, represent two examples of successful transition, where the number of daily smokers has decreased significantly throughout the past 70 years. In this paper, we highlight key institutions and key institutional entrepreneurs that paved the way for the transitions within the Danish and US smoking regimes. The reason for choosing these two countries is that Denmark and the US are two of a handful of countries in which smoking prevalence has dropped significantly during the past century (The Danish Cancer Association 2017). In 1953, 80 percent of the male population in Denmark smoked daily, while the same was true for about 40 percent of the women; for an average of 60 percent of the population (Danish Health Authorities 2015).

Smoking prevalence in the US peaked in 1953 at 45 percent (Saad 2012), so the vantage point of the US counterpart is relatively lower. Since the 1950s, however, the number of smokers has been decreasing more or less steadily in both countries – except for a slight increase of female smokers during the feminist movements in the late 1960s. While cigarette consumption has continued to decrease in the US, where 15.5 percent of the population were smokers in 2016, the development has stagnated in Denmark since 2011, where the total number of daily smokers has now stabilised slightly above 20 percent (Hyldal 2018). Regardless of the current Danish stabilisation, these two smoking paths do represent significant transitions of behaviour change among the respective populations, where smoking prevalence on average has dropped from 60 to 20 percent in Denmark and from 45 to 15 percent in the US for both genders (Centers for Disease Control and Prevention 2018; Danish Health Authorities 2015).

What is striking about the Danish and American transition pathways is that the drivers of change have not been studied sufficiently to date. We explain and identify some of the key forces behind the significant changes of smoking perception and behaviour in high-income countries. We provide answers to the question: Who were the leading pioneers of the anti-smoking agenda and which institutions respectively enabled and constrained the transitions in Denmark and the US?

Theoretical vantage point and methodological considerations

Theoretically, we primarily draw upon on two resources. First, we are inspired by Turnheim and Geels' phase-model for destabilisation enactments, which was developed on the basis of an empirical study of the decline of the British coal industry. It includes five lessons that are useful when examining the different stages of a given

destabilisation process (Geels & Turnheim 2012:46). The model describes how an industry can choose to cope with increasing destabilisation pressure by moving from ‘blindness and denial’ in stage one to ‘incremental responses’ in stage two. In these early stages of destabilisation, an industry tries to downplay delegitimisation criticism while remaining highly committed to maintaining and consolidating a current regime. The third and fourth stages revolve around ‘increasing doubts and diversification’ and ‘decline and destabilisation’. In these stages, an industry faces severe pressure that results in performance decline. The industry starts to doubt the current regime, their commitment towards the current regime declines and they begin a process of exploration searching for solutions outside of the current regime (Geels & Turnheim 2012:46). The final stages of the model focus upon on ‘reorientation’ and ‘dissolution’. In these stages, an industry is driven by survival and is desperately trying to figure out if it can change its core identity and beliefs as a last attempt to avoid total collapse.

In the following analysis, we draw upon the earlier stages of this phase-model in particular, because of the smoking industries’ repeatedly successful coping strategies of dealing with increasing delegitimisation pressure. The delegitimisation phase-model builds upon the theory of socio-technical transitions developed by historian Frank Geels. Briefly described, this theory draws on a mix of different disciplines, including science and technology studies, institutional theory, history and evolutionary economics. It revolves around the interaction between three levels: ‘the landscape,’ ‘the regime’ and ‘the niche’. The landscape level refers to major societal developments such as climate change, economic crises, war or ideological changes, and is often referred to as the macro-level. The regime – which is often described as the meso-level – refers to conditions of a socio-technical system regarding, e.g., regulation, institutions or cognitive biases (Geels 2004). Niches revolve around the diffusion of innovations that seek to enter and penetrate an incumbent regime from a micro-level, which potentially puts pressure on existing and incumbent technologies within a given socio-technical system.

In order to analyse the decline in tobacco smoking, we also draw upon Barbara Czarniawska’s theory on how institutions emerge. In her study of the emergence of the London School of Economics, Czarniawska argues that institutions should be thought of as ‘anthills’ that are established by a highly important institutional entrepreneur who behaves like a queen in an anthill (Czarniawska 2009:438). While it takes many ants to maintain and build an anthill, the queen is the one who initiates the building process. Drawing upon Bruno Latour, Madelene Akrich and Michel Callon’s (2002;1986) ideas about building alliances and establishing interest, Czarniawska explains that institutional entrepreneurs possess a certain entrepreneurial nature that distinguishes them from other people. They are good at forging alliances, they have a strong drive and they have a certain sense of feeling ‘what is in the air’ (Czarniawska 2009:438). In other words, they are agents of change. To continue the idea of the institutional entrepreneur, we draw inspiration from Antadza and McGowan’s theoretical contribution with respect to moral entrepreneurs who fall under the category of institutional entrepreneurs (Antadza & McGowan 2017: 4). In contrast to various types of institutional entrepreneurs that are inclined towards re-working the relationship between niches and levels of a given

regime, moral entrepreneurs aim to transform the macro-landscape, thereby creating pressure on a socio-technical regime from above rather than from below (*ibid.*:2). Thus, the aim of a moral entrepreneur is to target the landscape level by exercising discursive action, which potentially delegitimises certain kinds of behaviours while altering power relations at the regime level (*ibid.*:4).

We situate our paper within the broad research field of transition studies that is dominated by scholars interested in sustainable transitions (Sengers, Wieczorek & Raven 2016). Many of these scholars build upon the ideas developed by Rip and Kemp (1998) with respect to technological change, and often investigate how one technology replaces another. Some of the significant case studies in the field revolve around, e.g., the transition from horse-drawn carriages to automobiles, or the transition from sailing ships to steam ships (Geels 2005; 2002). In contrast to many of these transition studies, which focus on competing niche technologies, we draw attention to key institutions and the institutional and moral entrepreneurs that have destabilised the smoking regimes described above.

In accordance with a multitude of other studies on social innovation (Westley et al. 2011; Mulgan 2006; Mumford 2002; Mumford and Moertl 2003) and socio-technical transitions (Elzen et al. 2011; Geels and Verhees 2011; Raven 2007; Söderholm 2013; Tainter 2011), we provide a historical account of tobacco consumption in Denmark and the US. Working backwards from the current smoking regimes of the examined countries, we begin our transition narrative at the height of the former smoking regimes. Because we draw upon empirical sources that are produced by social scientists and primarily of a secondary nature, it is therefore important to highlight that although these sources have already been ‘through a particular level of analysis’ (Jensen 2017:1100), we find them compatible with the purpose of our investigation.

The following historical analysis begins with an account of how tobacco smoke was perceived in the beginning and middle of the 20th century. Taking that as our vantage point, we describe the key actors within the delegitimation phases of smoking, including both proponents and opponents of anti-smoking legislation.

The heyday of smoking

In the beginning of the 19th century, it was normal for Danish boys to receive a pipe as confirmation gift. Smoking a pipe was perceived as a symbol of entering adulthood (Danish Cancer Society 2017). The two professions that contributed the most to the spread of cigarettes were soldiers and seamen, whose dangerous and harsh lives – including their smoking habits – came to be perceived as an expression of masculinity (Danish Cancer Society 2017:25). During the Second World War, American soldiers were provided with large amounts of cigarettes by the government and cigarettes were used as a currency in parts of Europe when other currencies lacked stability. Although a small anti-tobacco movement had been active at the beginning of the 20th century, it was crushed when soldiers returned from the battlefields of World War One with cigarettes in their mouths. It was perceived as disrespectful to be against smoking, and

the popularity of cigarettes among soldiers created an image of smoking that came to be associated with peace and freedom (Danish Cancer Society 2017:24).

While it had been socially unacceptable for women to smoke prior to the 1900s, this changed when the tobacco industry targeted the female population with slogans like 'Reach for a Lucky instead of a sweet' during the Second World War. Such slogans appealed to women and their cigarette consumption rose as a result. Later, during the 1960s and 1970s, women began to use tobacco smoking as a weapon against the patriarchal state. Cigarette smoking as a symbol of freedom and independence spread from a small group of feminists to larger groups of women who wanted to signal their independence from social norms that they felt restricted women.

During the 1950s and through the 1970s, people smoked everywhere: teachers smoked in classrooms, social workers smoked among kids in kindergartens and people smoked on plains, in trains, in cars and all public spaces (Danish Cancer Society 2017). From the 1900s to the 1950s, most people thought of smoking as an innocent activity; it was a time of ignorance regarding its health consequences, and the tobacco industry continued to expand their business rapidly. The destabilisation enactment of the smoking transition path had not yet begun (Turnheim and Geels 2012:38). However, this changed when scientist started to publish research indicating a connection between smoking and lung cancer.

Health scientists vs 'Big Tobacco'

Some of the pioneering studies connecting lung cancer with tobacco consumption came from the Netherlands and Germany between 1939 and 1948 (Doll 2010:4). But these studies did not gain significant attention outside of Germany because of the Second World War. It was not until new research that included more significant data was published in the UK and the US in the early 1950s that scientists were able to argue with certainty that smoking was a significant factor in the occurrence of lung cancer (Doll 2010:4). These publications gained significant attention and more researchers became interested in the potential health hazards of cigarette smoking. The research accumulated: after 1964, no serious scientific research objected to the link between lung cancer and smoking. While a scientific consensus had been reached by this time regarding smoking and lung cancer, many other questions with respect to the health hazards deriving from tobacco smoke were still unanswered, which generated more health research (Doll 2010:18-19).

The role of the scientific institutions with respect to decreasing smoking behaviour cannot be downplayed: these institutions became the initiators and spokespersons of a new smoking narrative that started to challenge the business of 'Big Tobacco'. In the rest of the paper, we use this term as an abbreviation for the four largest American tobacco companies, including American Tobacco, Benson and Hedges, Philip Morris, and U.S. Tobacco (Oreskes & Conway 2010:16). The increasing accumulation of scientific research knowledge on the health hazards of smoking created an increasing external pressure (Turnheim & Geels 2012:38) on Big Tobacco, which began to perceive scientific research as a fundamental threat to their profits. In order to protect

their business, boards of directors as well as CEO's of the Big Tobacco companies began to respond incrementally. They countered the lung cancer research results by claiming that it was the creation of a limited number of 'mad' scientists (Danish Cancer Society 2007: 32). In addition, they argued that the hazards of smoking might just as well be the result of air pollution or other unknown substances. In other words, the destabilising enactments of the smoking regime had been set in motion by the early 1950s. What characterises these early phases, however, is that external pressure was still weakly articulated (Turnheim & Geels 2012:38); the tobacco industry was able to shrug the criticism of by denying the scientific evidence and continuing more or less with business as usual.

In general, though, the scientific results started to worry the industry. In order to meet the criticism Big Tobacco launched the filter cigarette. During the 1952 press conference held to introduce the new product, filter cigarettes were highly praised by the industry as the biggest health protector in the history of the cigarette. The filter cigarette became instantly popular within a couple of decades in the US, which meant that while 2 percent of the cigarettes sold in the early 1950s included filters, that number had increased to 90 percent in 1979. Another strategy adopted by the industry which sought to counter the threatening health research was the introduction of deceptive branding concepts like 'light' and 'low-tar', 'mild' and 'ultralight', which were used to further reduce the perceived health risks of smoking (Minhas and Bettcher 2010:711).

Furthermore, according to health researchers Raman Minhas and Douglas Bettcher, lax regulation policies allowed the industry to exploit a flawed testing protocol that measured the amount of tar, carbon monoxide and nicotine content. 'Despite knowledge that this test method is insufficient to measure the biological or epidemiological impact of cigarette products and does not provide meaningful information about the relative health risks of different brands of cigarettes, the tobacco industry shaped the testing results to characterize its brands with the aforementioned misleading descriptors' (ibid.). The misleading labels, combined with the filter cigarette, were very successful (Turnheim & Geels 2012:38) and effectively delayed the transition path of delegitimising smoking. The scientific community, however, did continue to gain wider attention in the media; once the health researchers started to communicate their research results to the public, a completely new industry paid for by the tobacco industry rose as a result.

The new industry's product and ambition was to spread doubt among the population with respect to the scientific results on smoking. This strategy of creating scientific distortion was even more callous and sophisticated than the introduction of filter cigarettes and 'mild labels'. The tobacco industry in the US, which had grown to become one of the most powerful industries in the country, started to collaborate with Hill and Knowlton, one the most effective public relations firm in the country (Oreskes & Conway 2010:16). Historians Naomi Oreskes and Erik M. Conway describe how Big Tobacco pursued this strategy of sowing doubt about the scientific consensus with respect to the health hazards of tobacco consumption. At the same time, Big Tobacco continued to promote their products through the manipulative counter-narratives described above, especially through ads targeting new consumer groups such as women.

The tobacco companies took advantage of a few unscrupulous scientists, who manufactured uncertainty about the scientific consensus and the vulnerability of science, which is partly driven forward by a healthy skepticism towards established science. An infamous memo written by an industry executive in 1969 stated that ‘Doubt is our product’ ... ‘since it is the best means of competing with a “body of fact” that exists in the minds of the general public’ (Oreskes & Conway 2010:34). The ‘Tobacco Strategy’ as Oreskes and Conway call it (ibid.:6) targeted science by involving high-profile industry lawyers and public relations experts who were willing to sow doubt about scientific facts. One of the many documents analysed by Oreskes and Conway was titled ‘Bad Science: A Resource Book’ (ibid.). The book provides numerous examples of how to undermine established scientific facts and it includes a list of scientists willing to speak on behalf of a think tank or corporation whenever they need a comment with respect to a certain issue. Through this strategy, the tobacco industry was incredibly successful in manufacturing a scientific debate, as they were able to convince journalists of their responsibility to present ‘both sides’ of the discussion. This now infamous strategy represents another pillar of Big Tobacco’s successful strategies to slow down the destabilisation pathway by its commitment to maintaining a smoking regime from which they made incredible profits (Turnheim & Geels 2012:38). (The ‘Tobacco Strategy’ - later also adopted by the fossil fuel industry successfully penetrated respected media outlets such as The Washington Post and The New York Times, who wrongfully claimed to represent both sides of the scientific debate on climate change for several years. (Oreskes & Conway 2010:7)).

As corporate institutions with unprecedented economic power that employed the effective expertise of public relations companies like Hill and Knowlton, Big Tobacco’s four main representatives – Philip Morris, U.S. Tobacco, Benson and Hedges as well as American Tobacco – stand out as the biggest contesters of the transition pathway towards delegitimising smoking throughout our condensed historical journey.

Destabilising the smoking regime in the US: lawsuits

Throughout most of the 20th century, tobacco politics in the US was favourable towards the industry. It was perceived as a successful and important sector of the economy as a provider of jobs, economic growth and export revenue. The few scientists who were outspoken critics of tobacco consumption in the beginning of the delegitimisation phase faced heavy resistance for decades, and their position was usually drowned out by the tobacco industry’s successful narrative (Albæk et al. 2007:8). Within the US Congress, the issue of tobacco has been dealt with traditionally in a secluded political subsystem containing tobacco industry representatives, members of congressional agricultural committees and bureaucrats. During the period from 1947–1999, an increasing number of people died as a result of lung cancer, but despite this trend most hearings in the agricultural committee (78 per cent) dealt positively with the industry (Albæk et al. 2007: 8). This close alignment between government elites and industry executives resembles the political situation in Denmark, which we discuss below.

On the US federal government level, the period from 1964 to 1984 has been described as a period of ‘regulatory hesitancy’ (Albæk et al. 2007). Whereas a landmark report published in 1964 by the US Surgeon General on smoking and health provided ammunition to a growing number of tobacco control advocates, the industry successfully fended off the scientific consensus as unscientific, and ‘merely statistical, not causal’ (Albæk et al. 2007:9). But while the federal political system was hesitant and passive, the US court system provided another political venue for destabilising the smoking regime. In contrast to the Danish political system, which only has a single passage point (Callon 1986) in the form of the Danish Parliament for promoting a certain political agenda, the US political system allows for political ‘venue shopping’ (Albæk et al. 2007:9). Whenever a political venue is not favorably disposed towards a political position, one may choose another political venue that is more closely aligned with one’s position on a certain topic. The mutual agreement upon the position on a certain topic between a political venue and a political advocate implies that the venue is more disposed towards favouring and advancing the political agenda of a given advocate. Contrary to the generally favourable treatment of the tobacco industry by the US Congress, US state-level court systems became highly successful political venues and obligatory passage points (Callon 1986:207) for tobacco control spokespersons (Akrich et al. 2002) and federal state officials, who were able to unify their interests (Akrich et al. 2002) with the state courts regarding the issue of controlling tobacco.

During the mid-1950s, mid-1980s and mid-1990s (Albæk et al. 2007:10), three waves of tobacco litigation occurred in the US. While the first two litigation waves, which included primarily lawsuits initiated by individual citizens, were unsuccessful, the third wave included lawsuits initiated by the states. A number of the individual lawsuits focused on issues of addiction and the harm that the industry’s product caused to the lives of smokers as well as non-smokers exposed to second-hand smoke. But due to the plaintiffs’ shortage of money, many of these lawsuits failed when they came up against the tobacco industry’s ‘deep pockets’ and its ability to fund appeals on many occasions.

Many of the lawsuits, however, helped uncover some of the wrongdoing of Big Tobacco (Albæk et al. 2007:10), which increased the pressure and destabilisation of the industry (Geels & Turnheim 2012:38) as the lawsuits captured the public’s attention. While Albæk et al. (2007) describe the individuals launching lawsuits as primarily unsuccessful, we argue that they should rather be perceived as moral entrepreneurs who incrementally increased the pressure on the smoking regime through discursive actions on the landscape level (Antadza & McGowan 2017: 2). The media attention that followed the lawsuits made the public more aware than it had been before about the wrongdoings of the tobacco industry.

Inspired by the pioneering lawsuits of the first litigation waves, a number of state and federal lawsuits eventually moved the issue of tobacco smoking from being a matter of private concern to one of public concern. In one important litigation process in 1994, the Attorney General of the State of Mississippi won a case against the tobacco companies in which he argued that non-smoking taxpayers should not pay for the treatment of sick smokers while the industry made lots of profits. The State of Mississippi won this

lawsuit, which was soon followed by many other state lawsuits, which led to a settlement with the tobacco industry in 1997 in which the tobacco industry acknowledged that smoking can indeed lead to a number of sicknesses and death (Albæk et al. 2007:10).

Concurrently with the first waves of litigation, a new coalition was formed in the mid-1980s to fight Big Tobacco. The coalition consisted of the American Cancer Society, the American Heart Association and the American Lung Association, which allied with community groups throughout the country to shift the attention regarding smoking towards a hitherto unknown subject: the health dangers of environmental tobacco smoke (ETS). A second report by the Surgeon General in 1986 identified a connection between second-hand smoke (EST) and lung cancer as well as other diseases (Albæk 2007:9). This report sparked a renewed concern about the negative aspects of exposure to second-hand smoke, which also increased the pressure on and destabilisation (Geels and Turnheim 2012:38) of the tobacco industry.

In 1998, as a result of various court orders, certain tobacco documents produced by Big Tobacco companies became publicly available, and quickly became infamous. These documents, which were leaked by an anonymous whistleblower, included more than six million previously secret internal documents that had been written by Big Tobacco lawyers, scientists and top executives. The texts detailed practices of the industry intended to deceive and manipulate the greater public. The papers revealed that the industry had knowingly promoted a dangerous product without informing the public of its dangers. They also detailed how the industry had increased the amount of nicotine in their products in order to make consumers more addicted while still denying publicly that nicotine was addictive (WHO 2002:9). The revelations of these documents accelerated the destabilisation of the smoking regime and exacerbated a potential crisis in the industry (Geels & Turnheim 2012:38). In other words, the period of federal ‘regulatory hesitancy’ was over, and the industry was increasingly finding itself in trouble on multiple levels.

During the mid-1990s, the US Food and Drug Administration added another blow to the already substantial number of lawsuits against Big Tobacco when they discovered that the tobacco industry had secretly added ammonium to the cigarettes in order to increase the absorption of nicotine into the blood, consequently making consumers more addicted to the drug. This story was widely reported in the US media, which added to the already widespread suspicion of the industry’s callous and unscrupulous tactics.

These various litigation waves that entered the public sphere through the political venue of the court system (Albæk et al. 2007) represent how the tobacco industry faced increasing and more coordinated pressure on a discursive (Antadza & McGowan 2017: 2) macro-level as well on the political meso-level (Geels 2005:452). One of the most significant results of these effective litigation processes was the steady decline in tobacco consumption from the 1970s and onwards (Saad 2012). At the same time, industry actors began to doubt the viability of their product in the US market, and began to focus their attention on low-income countries with laxer regulation, where consumption rose as a result (WHO 2008:16; Geels & Turnheim 2012:38). The US Congress did pass the ‘Family Smoking Prevention and Tobacco Control Act’ in 2009 signed into law by

Barack Obama (US Food and Drug Administration 2018), which aims to reduce tobacco-related illnesses and deaths by curbing tobacco use among adolescents and children. The bill bans a variety of ‘flavours’ that appeal to young people and prohibits the use of labels such as ‘mild’ or ‘light’, and was seen as a judicial milestone achievement for the tobacco-control advocates.

To summarise: While US federal anti-smoking legislation has been generally less comprehensive than, for instance, the Danish smoking bill of 2007, these US litigation processes contributed to aligning its anti-tobacco legislation more closely to the political agenda in Europe.

Danish opposition to the anti-smoking agenda: cultural values and taxation benefits

In the following section, we examine how the Danish smoking transition came about. We highlight three factors that explain the Danish Parliament’s institutional capacity ([omitted]) with respect to regulating tobacco consumption. These three determining factors are: 1) the liberal perception of smoking, 2) the taxation regime and 3) the tradition of establishing voluntary agreements with corporations. In order to explain the Danish Parliament’s stand on tobacco smoking in the past, we also take a closer look at the relationship between EU tobacco lobbyists and the Danish Government’s actions within the European Union.

One important reason for the Danish Parliament’s lack of action to regulate tobacco is that 95 percent of Danes, according to a poll conducted in 1997, primarily blame smokers – not the industry – if they get sick or die as a result of smoking (Albæk et al 2007). In accordance with other countries such as the Netherlands, Germany and the UK, Danes share a liberal belief that opposes the intrusion of the state in matters of private consumption (Duina & Kurzer 2004:65). Smoking has also primarily been considered an ethical issue in the past, which placed the issue outside the arena of party politics (Albæk et al. 2007:2).

Another important principle regarding the inaction of Danish politicians with respect to smoking regulation policies stems from the parliamentary tradition of consulting the corporate sector when new legislation is initiated. Elbæk et al. (2007) describe how tobacco regulation proposals in the Danish Parliament continuously are regularly followed by the current minister of health calling for ‘talks with the industry’ or ‘voluntary agreements’ (Albæk et al. 2007:13). This regulatory tradition has contributed significantly to the slowing down of the delegitimisation process of smoking (Albæk et al. 2007:13; Turnheim & Geels 2012:38). A third explanation of the Danish Parliament’s inaction with respect to regulating tobacco consumption stems from the fact that the government has profited tremendously from the Danish tobacco industry’s de facto monopoly in the Danish market. Due to a high taxation policy initiated on tobacco products in 1922, both the domestic tobacco industry and the government have continued to profit from the current taxation regime (Albæk et al. 2007:12). The biggest tobacco industry player in Denmark had net sales of more than 900 million Euro in 2016 while employing approximately 7600 people worldwide (Scandinavian Tobacco Group 2017).

The high Danish taxation regime on tobacco products has made international tobacco competition very difficult, resulting in a domestic market share of 97 percent for the Danish industry. This defensive position by the government that is closely aligned with the smoking industry demonstrates the Danish Parliament's commitment to defend and maintain the status quo (Turnheim & Geels 2012:38). Political scientist Paulette Kurzer and sociologist Francesco G. Duina contribute to our understanding of this reactionary image of the Danish Parliament in their description of Denmark's role within the EU. In their analysis of tobacco control measures in the EU in the 1990s, they include Denmark in the group of countries, including Germany, the UK and the Netherlands that have been historically protective of the tobacco industry because of their shared liberal view with respect to state influence on consumption. Kurzer and Duina (2004:65) also show how Danish members of the European Parliament obstructed and delayed a proposed European Commission ban on tobacco advertising initiatives for nearly a decade from 1989 to 1998 by working closely with industry lobbyist from tobacco companies in order to prevent state revenue loss from the Danish tobacco industry.

In other words, the Danish Parliament used its institutional capacity to act in accordance with the interests of the tobacco industry until the late 1990s. But as public opinion began to shift due to the work of the several institutional entrepreneurs, Danish politicians began to change their views according to the changing public perception, as we shall now discuss.

Drivers of destabilisation in Denmark: NGOs and politicians

The Danish Lung Association, the Danish Cancer Association and the Danish Heart Foundation had published about the dangers of smoking since the 1950s. However, these non-profit organizations had not been very successful in changing the opinion of the people. It was not until 1992 that things changed significantly. In 1992, the Organisation for Economic Cooperation and Development (OECD) published a landmark report that showed how Danish life expectancy had dropped dramatically over a period of approximately 14 years. In the late 1970s, Denmark had the fifth longest life expectancy compared to other OECD countries. By 1992, Denmark had fallen to 35th on the same list; it was positioned below southern European countries like Portugal and Greece, despite its having a large welfare-state and a well-functioning health care system compared to other European countries (Duina & Kurzer 2004:70). The OECD report specifically cited Denmark's high smoking rates among teenagers and women as possible explanatory factors for the dramatic fall in life expectancy. This landmark publication put significant discursive pressure (Antadza & McGowan 2017: 2) upon the smoking regime from the landscape level. It provoked a response by the former Prime Minister of Denmark, Poul Nyrup Rasmussen, who decided to launch a new programme in 1993 with the purpose to control tobacco consumption. Furthermore, the publication of the OECD report is an example of the effect that institutions can have within society. Regarding the Danish transition of smoking regimes, it is striking that the country's push towards transition originated from international institutional

bodies like the OECD and the EU, rather than from Danish political institutions. In the aftermath of the OECD publication, Danish media coverage of tobacco began to become more negative. An example from the Danish newspaper Politiken helps illuminate the development. During the 1960s and 1970s, the number of smoking ads published in the paper had far outnumbered the number of articles about tobacco (Albæk 2007:6-7), but this began to change after the OECD publication. The number of articles in Politiken covering tobacco escalated in the mid-1990s, which implies that the population had become more informed about the perils of tobacco consumption. From 1986 to 1997, the number of people who feared environmental tobacco smoke had likewise risen from 54 percent to 63 percent (ibid.: 7). But instead of accusing the tobacco industry for making people sick, an overwhelming majority of Danes (95 percent) still blamed the smokers themselves if they got sick.

While the OECD report did push the anti-smoking agenda in Denmark, a number of politicians played a substantial role in leading the new public smoking pathway. One of the first movers in terms of promoting the anti-smoking agenda in Parliament was the former Minister for Social Affairs, Aase Olesen, from the social-liberal party. Olesen was a non-smoker who – beginning in the mid-1980s – started to promote the idea of creating smoking-free environments in Denmark. ‘It is a human right to breathe smoke-free air’ (our translation), she proclaimed from the speaker’s chair of the Danish Parliament in the mid 1980s (Trudsø 2015). With her reference to human-rights, Olesen is an example of a moral entrepreneur (Antadza & McGowan 2017: 2) who sought to change the general perception of smoking at the landscape level. Her proposal, however, was refused by a majority of members of Parliament, who were at that time still predominantly heavy smokers. She was even ridiculed in the media and by her colleagues and the general public, because the question of smoking was still perceived as a personal matter. But her effort was not in vain. Only a few years later, the fight was picked up by her conservative colleague, Agnete Laustsen, who was able to introduce a government circular that supported smoke-free environments in governmental institutions.

Seven years later, in 1995, the message contained in that same circular entered into legislation by ex-smoker Yvonne Herløv Andersen, from the former Centre Democrats Party. During the vote on the new smoking law, Agnete Laustsen, the initiator of the original circular, had to disobey her party leader with respect to the issue, thus making her very unpopular within the party. Although the new smoking law of 1995 was not very comprehensive compared to our current standards, it represented a milestone for the Danish tobacco control advocates. These three politicians can thus be seen as the institutional entrepreneurs (Czarniawska 2009:438) of the first Danish smoking law, who successfully contributed to changing the perception of smoking at both the regime and landscape levels (Geels 2005:452). They also became very important actors within the transition phase of the Danish society, contributing significantly to the destabilisation of the smoking regime (Turnheim & Geels 2012:38). Yvonne Herløv Andersen has described the process towards reaching the smoking legislation as ‘a game of chess in the Danish Parliament divided between smokers and non-smokers’ (our translation,

Trudsø 2015). Andersen explained that most of the smokers worked for the ‘benefit of themselves instead of for the broader health conditions of the general population.’ (our translation, *ibid.*) However, the battle against smoking did not stop in 1995; rather, the legislation paved the way for a much feistier law that was adopted in 2007. In contrast to the former law, the 2007 version prohibited smoking in indoor working spaces, restaurants, larger bars and clubs. One year after this new smoking law was adopted, 60 per cent of the Danish citizens liked it and were in favor of expanding it (Danish Cancer Society 2017). A year later, the age limit for buying cigarettes was increased to eighteen from sixteen, and in 2014 the Danish Railway Company forbid smoking in all of its public railway stations and on its platforms.

The smoking law of 2007 was similar to the 1995 law in that it was pushed primarily by one institutional entrepreneur. Her name is Inge Haunstrup Clemmensen, and she has been called ‘the mother of the 2007 smoking law’ (Trudsø 2005). Clemmensen was raised in a culture where smoking was a natural part of her life, and she is a former smoker herself. But despite her background, she has been the leading driver in publicising health hazards of smoking. Trained as a medical scientist and working for the Danish Cancer Society as a professor, she has published widely on the hazards of smoking while pushing the anti-smoking agenda through the Danish media (Mandag Morgen 2011). Although she has been able to transform the Danish culture on smoking quite significantly, she is not satisfied yet. The final frontier for Clemmensen’s fight revolves around getting rid of the last smoking offices in work spaces, and making it illegal to smoke in smaller bars. When that goal is completed, she wants to target the smoking culture that has moved outdoors (Mandag Morgen 2011). In accordance with the aforementioned politicians who were responsible for the first smoking law, we argue that Clemmensen can be considered an institutional entrepreneur (Czarniawska 2009:438) because of her past and present engagement with respect to fighting tobacco smoke. In addition, she has been and is one of the most eager forces behind the destabilisation of the Danish smoking regime (Turnheim & Geels 2012:38), and her effort has contributed substantially to the decrease of tobacco use among Danes.

Conclusion

We highlight in this paper the importance of institutions and key institutional and moral entrepreneurs in the delegitimisation phases of smoking regimes. We have shown how the closely aligned interests of tobacco corporations and parliamentary institutions obstructed the anti-smoking agenda to a large extent for many decades in both the US and Denmark. These closely aligned interests between parliaments and big tobacco shed a good deal of light on the relevance of corporate-political configurations within transitions.

Our study on how the corporate-parliamentarian configurations of Denmark and the US constrained and obstructed the transition towards smoke-free societies may be used as a suitable model for studying other transition pathways. We are interested in particular in how the insights from the smoking case can be used in highlighting the challenges we face with regard to future green transitions that are necessary due to climate change.

While the delegitimation process of global warming and environmental degradation has been pushed for several decades by a variety of scientists and climate activists, CO₂ emissions continue to rise (Watts 2017) and remain unregulated. The fossil fuel industry has pursued similar strategies with respect to deceiving the public as the tobacco industry (Oreske and Conway 2010) which indicates the level of opposition environmentalist and the general public will be facing from the corporate-political alliance of the political elites and fossil fuel executives.

The research on the smoking regimes presented in this paper illustrate serious parliamentary problems that stem from the fact that democratically elected officials to a large extent protect corporate interests rather than the interests of public health. If the fossil fuel industries currently have similar relationships with the democratically elected US and Danish officials as the smoking industry had during the early stages of destabilisation, green transitions proponents face severe political challenges in the coming decades.

References

- Antadze, N. & McGowan, K. (2017). Moral entrepreneurship: Thinking and acting at the landscape level to foster sustainability transitions. *Environmental Innovation and Societal Transitions*, 25 (2017), 1–13.
- Akrich, M., Callon, M., & Latour, B. (2002). The key to success in innovation Part 1: The art of interessement. *International Journal of Innovation Management*, 6(2) (June 2002), 187–206.
- Albæk, E. et al. (2007). Making tobacco consumption a political issue in the United States and Denmark: The dynamics of issue expansion in comparative perspective. *Journal of Comparative Policy Analysis: Research and Practice*, 9(1), 1–20.
- Callon, M. (1986). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St. Brieuc Bay. *The Sociological Review*, 32, 196–233.
- Doll, R. (2010). Evolution of knowledge of the smoking epidemic. In P. Boyle, N. Gray et al. (Eds.), *Tobacco: Science, policy, and public health* (pp. 1-13). Second edition. New York, NY: Oxford University Press.
- Elzen, B., Geels, F.W., Leeuwis, C., & van Mierlo, B., (2011). Normative contestation in transitions ‘in the making’: Animal welfare concerns and system innovation in pig husbandry. *Research. Policy*, 40 (2), 263–275.
- Geels, F.W. (2002). Technological transitions as evolutionary reconfiguration processes: A multi-level perspective and a case-study. *Research Policy*, 31(8-9), 1257–1274.
- Geels, F.W. (2004). From sectorial systems of innovation to socio-technical systems: Insights about dynamics and change from sociology and institutional theory. *Research Policy*, 33 (6), 897–920.
- Geels, F. W. (2005) The dynamics of transitions in socio-technical systems: A multi-level analysis of the transition pathway from horse-drawn carriages to automobiles (1860–1930). *Technology Analysis & Strategic Management*, 17(4), 445–476.
- Geels, F. 2012 A socio-technical analysis of low-carbon transitions: introducing the multi-level perspective into transport studies. *Journal of Transport Geography* 24, 471–482.
- Geels, F.W. & Verhees, B. (2011). Cultural legitimacy and framing struggles in innovation

- journeys: A cultural-performative perspective and a case study of Dutch nuclear energy (1945–1986). *Technological Forecasting and Social Change*, 78(6), 910–930.
- Intergovernmental Panel on Climate Change (2014). *Climate Change 2014: Mitigation of climate change: Working Group III contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, United Kingdom and New York, NY, USA
- Minhas, R., & Bettcher, D. (2010). WHO – Coordinating international tobacco control. In P. Boyle, N. Gray et al. (Eds.), *Tobacco: Science, Policy, and Public Health* (pp. 705-715). Cambridge UK: Oxford University Press.
- Mulgan, G. (2006). The process of social innovation innovations: Technology, governance. *Globalization*1(2), 145–162.
- Mumford, M.D., & Moertl, P. (2003). Cases of social innovation: Lessons from two innovations in the 20th century. *Creativity Research Journal.*, 15 (2–3), 261–266.
- Mumford, M.D. (2002). Social innovation: Ten cases from Benjamin Franklin. *Creativity Research Journal.*, 14 (2), 253–266.
- Raven, R. (2007). Co-evolution of waste and electricity regimes: Multi-regime dynamics in the Netherlands (1969–2003). *Energy Policy*, 35 (4), 2197–2208.
- Rip, A., Kemp, R. P. M., & Kemp, R. (1998). Technological change. In S. Rayner & E. L. Malone (Eds.), *Human choice and climate change*. Vol. II, Resources and technology, (pp. 327–399). Columbus, OH: Battelle Press.
- Sengers, F., et al. (2016). Experimenting for sustainability transitions: A systematic literature review. *Technological Forecasting and Social Change*. forthcoming
- Söderholm, K. (2013). Governing socio-technical transitions: Historical lessons from the implementation of centralized water and sewer systems in Northern Sweden, 1900–1950. *Environmental Innovation and Societal Transition* 7, 37–52.
- Tainter, J.A. (2011). Energy, complexity, and sustainability: A historical perspective. *Environmental Innovation and Societal Transition* 1(1), 89–95.
- Turnheim, B., & Geels, F.W. (2012). Regime destabilisation as the flipside of energy transitions: Lessons from the history of the British coal industry (1913–1997). *Energy Policy*, 50, 35–49.
- Westley, F., Olsson, P., Folke, C., Homer-Dixon, T., Vredenburg, H., Loorbach, D., & van der Leeuw, S. (2011). Tipping toward sustainability: Emerging pathways of transformation. *Ambio* 40 (7), 762–780.
- Online References
- Cropley, E. (2007). Smoking could kill 1 billion this century: WHO.
<https://www.reuters.com/article/us-smoking/smoking-could-kill-1-billion-this-century-who-idUSBKK25206020070702?feedType=RSS&rpc=22&sp=true>. 6 August 2018
- Chestney, N. (2018). Global carbon emissions hit record high in 2017.
<https://www.reuters.com/article/us-energy-carbon-ica/global-carbon-emissions-hit-record-high-in-2017-idUSKBN1GY0RB>. 2 July 2018.
- Centers for Disease and Control Prevention. (2018). *Current Cigarette Smoking Among Adults in the United States*.
https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm. 6 August 2018.

- Danish Cancer Society. (2017). More young people smoke. <https://www.cancer.dk/nyheder/flere-unge-ryger/>. August 6 2018.
- Danish Cancer Society. (2017). The smoking history of Denmark. <https://www.cancer.dk/skoleviden-om-kraeft/kan-man-undgaa-kraeft/undgaa-rygning/regler-om-rygning/>. 6 August 2018
- Hyldal, C. (2018). The number of smokers has stabilised for the sixth year. <https://www.dr.dk/nyheder/indland/antallet-af-rygere-staar-bomstille-paa-sjette-aar>. 6 August 2018
- Mandag, Morgen. 2011. Cancer doctor rebels against smoking culture. <https://www.mm.dk/artikel/kr%C3%A6ftl%C3%A6ge-i-opg%C3%B8r-med-rygekultur>. 6 August 2018
- Rasmussen, L. (2016). Here are 9 factors killing thousands every year. <https://politiken.dk/forbrugogliv/sundhedogmotion/art5635440/Her-er-9-faktorer-som-dr%C3%A6ber-tusinder-hvert-%C3%A5r>. 6 August 2018
- Saad, L. (2012). One in Five U.S. Adults Smoke, Tied for All-Time Low.: <http://news.gallup.com/poll/156833/one-five-adults-smoke-tied-time-low.aspx>. 6 August, 2018
- Scandinavian Tobacco Group. (2017). Annual report 2016: Improved ebitda and strong cash flows on the base of flat net sales. <https://www.st-group.com/en/media/news-stories/2017/annual-report-2016>. 6 August 2018
- Danish Health Authority. (2016). Cancer Plan IV. Improved effort on the cancer Plan IV – the patients cancer plan. <https://www.sst.dk/da/sygdom-og-behandling/kraeft/nationale-planer/kraeftplan-iv>. 6 August 2018
- Danish Health Authority. Fact Sheet. (2015). The Danes smoking habits. <https://www.sst.dk/da/udgivelser/2016/~media/8CEB6CBBE22B4488817EE6259A681F67.ashx>. 6 August 2018
- The Tobacco Atlas. (2018). Issue consumption. 6 August 2018
- WHO. (2018). Tobacco fact sheet. <http://ww.who.int/mediacentre/factsheets/fs339/en/>. 6 August 2018
- Trudsø, M. (2015). Rygeloven fylder 20 år – sådan kæmpede politikerne imod den. <http://livsstil.tv2.dk/sundhed/2015-07-01-rygeloven-fylder-20-aar-saadan-kaempede-politikerne-imod-den> 6 August 2018
- WHO. (2017). Globally tobacco kills more than 7 million people each year. <http://www.who.int/mediacentre/factsheets/fs339/en/> 6 August 2018
- WHO. (2008). The global tobacco crisis. Tobacco – global agent of death. http://www.who.int/tobacco/mpower/mpower_report_tobacco_crisis_2008.pdf. 6 August 2018
- WHO. (2002). The tobacco industry documents. What they are, what they tell us, and how to search them. A practical manual. http://www.who.int/tobacco/communications/TI_manual_content.pdf. 6 August 2018
- US Food & Drug Administration. (2018). Family Smoking Prevention and Tobacco Control Act – An overview. <https://www.fda.gov/tobaccoproducts/guidancecomplianceregulatoryinformation/ucm246129.htm>. 6 August 2018.
- Watts, J. (2017). Global atmospheric CO2 levels hit record high. <https://www.theguardian.com/environment/2017/oct/30/global-atmospheric-co2-levels-hit-record-high>. 6 August 2018.