MJLA Foreword

Dear Staff and Students,

It is a great honour to have been invited to write the foreword to a journal which is so demonstrative of the Liberals Arts ideal. The contributors have all followed their academic curiosity and the results of their research are remarkable. In this edition of the MJLA we have papers as wide ranging in topic as: Catholicism and Female Identity, Mindfulness and Alzheimer's disease and Education and Communicative Action. The journal is a wonderful example of the academic work of UCM students who study a such a wide range of courses and write papers on an even more diverse set of subjects!

I would like to thank the many people who have worked so hard to make sure that the MJLA continues to reward academic excellence with publication, from the many student editors who have worked diligently in the first round of assessment and selection, to the staff members who have given the final expert assessment on papers. In particular, I would like to express UCM's gratitude to the editorial team that have laboured hard to make the journal available online.

The MJLA is one of UCM's many great traditions to be nurtured and nourished for the benefit of future generations of students.

Professor Mathieu Segers

Dean UCM

CONTENTS

Articles

FROM CERAMIC CENTRE TO CREATIVE HUB

What the creative hub can teach us about the redevelopment of the Maastricht Sphinx quarter

Author: Hanna Hesemans

Abstract   This paper investigates how the concept of the Creative Hub – a space of creativity that fosters knowledge, innovation, and economic growth – can form a positive addition to the creative redevelopment of the former Sphinx factory buildings in Maastricht. The policy of the European Creative Hub Network (2016) is applied to the redesign of the former Sphinx Factory by the municipality of Maastricht. A research method of coding is employed to compare the policy documents of the municipality with those of the Hub Network. It is concluded that the Sphinx could benefit from more community involvement, individual initiative, a bottom up approach, a broader definition of creativity, less focus on regeneration, more flexibility and more inclusiveness. In the end, the findings present an opportunity for moving beyond the debacle of the loss of the cultural capital competition of 2018.

1   Introduction

"Creative hubs are lighthouses in their neighbourhood" (Apostol, 2016). As spaces where creativity can flourish, hubs are a strategical option to foster knowledge, innovation, and economic growth (Apostol, 2016). In 2016, the British Council launched the European Creative Hub Network, a two-year project that aims at promoting the collaboration and growth of major creative hubs throughout Europe. The project is supported by the European Commission and demonstrates how creative hubs benefit the growth of the creative sector and overall economy (creativehubs.eu, 2016). A creative hub is a "[platform] or [workplace] for artists, musicians, designers, filmmakers, app developers or start-up entrepreneurs" (British Council, n.d., para. 2). The conference *Everyone is an Artist*, held on September 27 2016, in the Centre Céramique, presented me with the benefits of the hub. At the conference, Roxana Apostel, project leader of the European Creative Hub Network, and Valentina Laterza, director of the hub BASE Milano, gave a vivid plea for the concept. This plea outlined the positive effects hubs could have within their neighbourhoods. Hubs were found to foster creativity, increase economic growth and enrich neighbourhoods (The artist and the others, 2016). The benefits attributed to the hub triggered my imagination.

In 2013, the municipality of Maastricht announced the redevelopment of the former Sphinx factory and the surrounding quarter Belvedère (Derix & Meys, 2013). Maastricht at this time was competing to become the European Cultural Capital of 2018. Within the context of this competition, it was decided to redevelop the former Sphinx factory terrain as a 'Quartier des arts'. Creative companies would be encouraged to settle in the quarter. The former industrial building site should be transformed into a 'hip' and 'cool' international "Sphinxcene" (Derix & Meys, 2013, p. 29). The plan matured. In 2016, a cluster of cultural companies houses in the old factory buildings, among them NAIM Bureau Europa, Pathé, the Muziekgieterij, and Lumière. Still, I found that the quarter did not breath an air of all encompassing creativity. The Sphinx quarter seemed a industrial estate, be it one of cultural companies. Imagining alternatives, I wondered: what if the municipality had instead taken the creative hub as starting point for the redevelopment of the Sphinx? In this paper, I investigate the question: How could the concept of the Creative Hub form further develop creativity at the former Sphinx factory site in Maastricht?

Firstly, I aim to shed light on the concept of the hub by a literature review guided by the writings of the Creative Hub Network (British Council, n.d.). After this, I shortly outline the methods employed in my research. Following these methods, I then analyse the policy plans for the Sphinx terrain. The aim of this

article is to make practical suggestions for the municipality of Maastricht. The municipality should foster community involvement, individual initiative, a bottom up approach, a broader definition of creativity, less focus on regeneration, more flexibility and more inclusiveness. If action is taken with regard to these suggestions, I am convinced that an all-encompassing creativity could soon take hold of the Sphinx quarter. By presenting the municipality with clear guidelines, this article gains its relevance forthe further development of the former Sphinx factory terrain. The paper should be taken as a guideline for the development of a feasible and above all creative Sphinx quarter. This means a Sphinx quarter that is not so much a cluster of cultural companies but a dynamic synthesis of creativity. The creative Sphinx quarter is one that incorporates a broad and inclusive notion of creativity. By setting the tone for a new creative policy in which the hub plays a major role, Maastricht might overcome the debacle of the cultural capital loss of 2018.

2   Context: from ceramic city to cultural capital

In 2013, the city of Maastricht radically altered its plans for the development of the former Sphinx factory at the Boschstraat. The Sphinx once was an extolled name in the ceramics industry (De Limburger, 2015). After its closure in 2006, plans were made for the redevelopment of the factory area. In the light of the 2008 financial crisis, the original plan for a modern housing complex was cancelled. Maastricht was at that time still competing to become the European Cultural Capital of 2018. Because of this the ideal of creativity was held dear by the municipality. A plan arose for the redevelopment of the Sphinx factory, and the surrounding quarter Belvedère as a 'Quartier des arts' (Derix & Meys, 2016). Creative companies were encouraged to settle in the quarter and turn the former industrial buildings into the creative centre of Maastricht. The buildings of the Timmerfabriek, the Eiffel-building, the Landbouwbelang, and the little haven with the Bassin would be part of the redevelopment (Derix & Meys, 2016). In the European Cultural Capital competition, Maastricht was eventually defeated by the city of Leeuwarden (L1, 2013) . Overconfident as Maastricht was, this news came as a bolt from the blue (L1, 2013). Surprisingly, the idea of a Quartier des Arts remained unchanged. In 2017, the Quartier des Arts is getting its envisioned form. The plan for the redevelopment of the Sphinx quarter in a 'Quartier des Arts' has been implemented. The Belvedère is now a cluster of different cultural companies that are related in their cultural content, yet do not share the same mission. For a couple of years, Bureau Europa – a platform for design and archi-

tecture – and the Muziekgieterij – a live music venue – have taken their places in the former Timmerfabriek. In 2015, the Pathé cinema opened in front of the monumental Eiffel building. In 2016, the Lumière cinema – an art house movie theatre – joined the Timmerfabriek cultural cluster at the side of the Bassin . The Eiffel building is currently being renovated to become a student hotel – with roof terrace (Belvedère Maastricht, n.d.). All initiatives have culture in common, but an overall connection between the cultural enterprises seems to lack. The question that rises is whether there is a way to combine the missions of the enterprises. Is there a way to secure a Sphinx quarter that features all-encompassing creativity rather than loosely coupled cultural enterprises? The hub might light the way.

3   Literature review: what is a creative hub?

Due to its flexible nature, the concept of the hub is rather ungraspable. According to the British Council,

> "[c]reative hubs are platforms or workplaces for artists, musicians, designers, filmmakers, app developers or start-up entrepreneurs. They are uniquely diverse in structure, sector and services, and range from collective and co-operative, to labs and incubators; and can be static, mobile or online. More importantly, they are drivers in a field with the potential to revive the economy". (British Council, n.d., para. 2)

This definition is to say the least extensive. The hub is defined by uniqueness and diversity, which makes the concept broadly applicable to cultural companies. For people who are not involved with hubs, the question remains: 'which cultural enterprise is a hub, and which is not?'. Such broadness is disruptive in providing a clear basis for research. Therefore, I take the more specific characteristics of hubs mentioned by Tuukka Toivonen and Nicolas Friederici (2015) as leading for my research. Toivonen and Friederici describe the following essential characteristics of the hub:

1   *A hub should initiate collaborative communities led by entrepreneurial individuals;* at the basis of a hub lays a social milieu wherein collaboration takes place in an egalitarian manner. However, individual agency is prevalent and is thought to benefit the community. Often, hubs facilitate the development of strong individual entrepreneurial positions within communities.
2   *A hub should involve diverse members that bring with them heterogeneous knowledge;* social inclusion is a precondition. Innovation is thought to happen via

"creative clashes" (Toivonen et.al., 2015, p. 3) between people with diverse interests.

3 *A hub should stimulate creativity in both a physical and digital area;* hubs offer opportunities for meeting in a creative environment, face-to-face as well as digital.

4 *A hub should localize global business culture;* a hub has a bridging function between local policy and international entrepreneurship.

Creative hubs began to develop in the United Kingdom roughly 10 years ago (British Council, n.d.). This development corresponds with the set up of gentrification policies in the 1970s (Rossler, 2011). The ideas that lay behind hubs resonate with early theories of researchers such as Richard Florida. Florida's (2003) *Cities and the Creative Class* informed the uptake of creative clustering and gentrification in urban policy (Borén & Young, 2013). In his article, Florida (2003) outlines the *creative capital theory.* This theory states that creative people are the motors behind economic growth. Creative people tend to inhabit "places that are innovative, diverse and tolerant" (Florida, 2003, p. 8). Florida considers three T's essential for places wanting to attract creative people: *Technology, Talent* and *Tolerance.* He moreover emphasizes the importance of place and community, together with face-to-face interaction. He also highlights the tendency for creative companies to cluster in order to "rapidly mobilize talent" (Florida, 2003, p. 5). Hubs follow Florida's theory, in that they are "creative centres" (2003, p.8). Hubs are spaces where creativity can flourish, and they are thought to foster knowledge, innovation and economic growth (Apostol, 2016). Creativity is considered as a driver for the economy, and hubs are often set up in former industrial, now subordinated areas of major cities (British Council, n.d.; Laterza, 2016). The promotion of hubs as initiators of economic growth supports Florida's idea of an economy that is driven by creativity.

Allen J. Scott (2010) takes Florida's theory one step further. He comes closer to the concept of the hub in that his theory is more inclusive and leaves room for paradox. Scott makes a distinction between *learning, creativity* and *innovation.* He explicitly emphasizes these three factors as drivers for economic growth. For Scott, talent alone is not sufficient to constitute creative growth. Contrary to Florida (2003), Scott does not omit the paradoxes involved in the cultural field and creative hubs. He describes the importance of maintaining a common ground among hub partners, while at the same time facilitating innovation. Scott moreover emphasizes that clusters that are anchored regionally are not excluded from global creativity schemes. Finally, Scott stresses the paradoxical tendency of creative centres to form a collective community, without letting go of individ-

uality. What Scott explains is that a hub encompasses characteristics that are often considered uncomplimentary. Hubs "view individuality, leadership, collaboration, and community participation as complementary rather than opposing characteristics" (Toivonen et.al., 2015, p. 3). A certain vagueness is part of their success, it makes them adaptable and therefore sustainable and innovative (Toivonen & Friederici, 2015).

Hubs, however, are different from gentrification policies in many more ways than Scott (2010) explains. Whereas gentrification often has been imposed top-down, hubs are build bottom-up (Apostol, 2016). Talent is no longer narrowly defined as "those with a bachelor degree and above" (Florida, 2003, p. 10), which consequently leads to a higher standard of inclusivity and openness. Hubs are more flexible than gentrification policies. They are not confined to a fixed set of characteristics such as Florida's three T's or strict policies (Laterza, 2016; Apostol, 2016). Hubs "demand radical change by policymakers" (Borén & Young, 2013, p. 1801). They feature a new way of social interaction between diverse people. They are in no way the "new creative mainstream" described by Florida (2003, p. 13). Their innovative and flexible nature keeps them from being so.

In this literature review I have touched upon many characteristics and tendencies that lay at the basis of hubs. Yet, I am aware that a certain vagueness concerning hubs might remain, and I think that is part of their strength. Therefore, I would like you to take with you the following words while proceeding with the remaining paragraphs of this essay. A hub can be many things, but "ultimately 'a hub is a hub' when it unites, inspires and promotes a community" (British Council, n.d., para. 5)

4   Research Methodology

For my research, I chose to adapt a quantitative approach that enabled me to inspect policy documents in an objective manner. The first part of my research consisted of pre-coding. In setting-up the preliminary coding categories, I looked at *Defining what a hub really is* by Toivonen and Friederici (2015) and the *Creative Hubkit* by Matheson (n.d.). These two publications constitute the basis of the European Creative Hubs Network (British Council, n.d.). I made further additions to the preliminary set of codes by investigating my notes on the conference talks of Apostol and Laterza (2016). Then, I compared the codes that resulted from these two steps to the previously outlined literature review. Eventually, I created a list of 15 coding categories. These categories not only give a clear direction to my research. They also sum up the main characteristics that are essen-

tial for creative hubs. In arbitrary order the categories are: creativity, community, innovation, entrepreneurship, leadership, collaboration, diversity, internationality, support, flexibility, regeneration, bottom-up approach, individuality, place, and inclusiveness (see Table 1).

Broad categories	Associated concepts
1. Creativity	creativity enhancement
2. Community	connect people, shared vision, the collective, social value, communication, engagement with a wider audience
3. Innovation	novel combinations of ideas and practices, testing new ideas and ventures, research & development, emerging talents, risk-taking, radical approach, future focused
4. Entrepreneurship	value-creation, start-up revolution, social-entrepreneurship, profitability, finance, investment opportunities, economic growth, income generation
5. Alternative leadership	strong network position, distributed leadership, development of leadership skills, people-centred leadership
6. Collaboration	sharing, networking, peer-to-peer learning, partnerships, knowledge exchange, co-working
7. Diversity	creative clashes, heterogeneous cognitive resources, interdisciplinary, working across business sectors, different backgrounds, combination of creative- and non-creative industries, interaction with new and traditional businesses
8. Internationality	international opportunities, European Creative Hubs Network
9. Support	peer support, provide inspiration, facilitate skills development, offer services and facilities, support for start-ups & entrepreneurs
10. Flexibility	open ethos, development without structural planning, hybrid business models
11. Regeneration	public role, positive social and/or environmental impacts, broader impact on local town or city, fulfilment geographic priorities and sector specific objectives, job creation, cultural tourism, set-up in less-well-of area, policy recommendations
12. Bottom-up approach	not top-down, reciprocal relationship with community, citizen-led, conversation
13. Individuality	individual responsibility, self-directed action, loose ties
14. Place	meeting, creativity enhancing interior design, face-to-face contact, online platform, sense of permanence, facilitating regular events, hospitality services
15. Inclusiveness	openness, holistic idea of culture, egalitarian participation

Table 1   Pre-set coding categories and associated concepts

In the second part of my research, I applied the 15 categories to several publications of the Maastricht municipality. The first publication I inspected was *Places for meeting* (2012), a report on the municipality's vision for 2030. The second was a more specific ambition plan on the Quartier des Arts: *The answer of the Sphinx* (Derix & Meys, 2013). After an analysis of these two publications, I decided to split up the category of entrepreneurship into (1) economic growth and (2) entrepreneurship. I thought this distinction was more useful in understanding the revival of the Sphinx quarter as proposed by the municipality of Maastricht. Moreover, I decided to exclude the notion of leadership and see it as complementary to entrepreneurship, because I found that these terms often overlapped. Finally, I supplemented the associated concepts of the categories. The 15 categories that resulted, together with their related concepts, can be found in below (see table 2).

The final part of my research consisted of applying the final coding categories to the two policy documents written on the redevelopment of the Sphinx, and subsequently analysing the results of this application. I defined areas of similarity and difference between hubs and the Quartier des Arts. Accordingly, I investigated what positive additions the creative hub could bring to the redevelopment of the Sphinx quarter. The results of this final research step are described in the following paragraphs of this paper.

5   Analysis

The following part of this research concerns my analysis of the Maastricht municipality's policies on the creative redevelopment of the Sphinx quarter. After describing the results of coding, I will discuss these results. Finally, I outline five policy implications that should be taken as guidelines for the further development of the former Sphinx factory terrain. A terrain that should become the creative hub of Maastricht.

5.1   Results
The results of my study show that all 15 coding categories are somewhere mentioned in the 2030 vision of the Maastricht municipality (2012). In *The answer of the Sphinx* (Derix & Meys, 2013) most categories are mentioned. In the latter, individuality and inclusiveness are not mentioned. Community is only touched upon once (Table 3).

Broad categories	Associated concepts
1. Creativity	creativity enhancement, growth of creative industry, crafts
2. Community	connect people, shared vision, the collective, social value, communication, engagement with a wider audience, the local
3. Innovation	novel combinations of ideas and practices, testing new ideas and ventures, research & development, emerging talents, risk-taking, radical approach, future focused, knowledge-economy, the 'modern', new urbanism
4. Entrepreneurship	start-up revolution, social-entrepreneurship, freelancing, independent-contractors, private initiatives, alternative entrepreneurship
5. Economic growth	value-creation, profitability, finance, investment opportunities, income generation, career opportunities, augmenting the job market, business competitiveness, establishment of businesses, economic vitality
6. Collaboration	sharing, networking, peer-to-peer learning, partnerships, knowledge exchange, co-working, clustering, cross-border cooperation, public-private collaboration
7. Diversity	creative clashes, heterogeneous cognitive resources, interdisciplinary, working across business sectors, different backgrounds, combination of creative- and non-creative industries, interaction with new and traditional businesses, multifunctionality, differentiation of supply
8. Internationality	International opportunities, European Creative Hubs Network, international positioning of the city, international workers, 'Euregio' (region of Europe)
9. Support	peer support, provide inspiration, facilitate skills development, offer services and facilities, support for start-ups and entrepreneurs, education, facilitate development of awareness, create work spaces
10. Flexibility	open ethos, development without structural planning, hybrid business models, all-encompassing definition, no set endpoint, alternative/flexible working, flexible engineering, temporal functions, dynamic character
11. Regeneration	public role, positive social and/or environmental impacts, broader impact on local town or city, fulfilment geographic priorities and sector specific objectives, job creation, cultural tourism, set-up in less-well-of area, policy recommendations, creativity leads to economic growth, the young/hip/cool/bohemian/talented as drivers for prosperity, area-attractiveness, vitalisation of city's scenery
12. Bottom-up approach	Not top-down, reciprocal relationship with community, citizen-led, conversation/dialogue, demand-oriented policy, participation,
13. Individuality	individual responsibility, self-directed action, loose ties, independency
14. Place	meeting, creativity enhancing interior design, face-to-face contact, online platform, sense of permanence, facilitating regular events, hospitality services, virtual environment
15. Inclusiveness	openness, holistic idea of culture, egalitarian participation, reducing social exclusion, preventing segregation, making room for different lifestyles and niches

Table 2   Final coding categories and associated concepts

Broad categories	Sphinx	Overall Policy	Total	Percentage Sphinx	Percentage Overall Policy	Percentage T
1. Creativity	11	9	20	10,0%	3,0%	5,0%
2. Community	1	20	21	1,0%	7,0%	5,5%
3. Innovation	20	28	48	19,0%	9,5%	12,0%
4. Entrepreneurship	5	17	22	4,5%	6,0%	5,5%
5. Economic growth	8	22	30	7,5%	7,5%	7,5%
6. Collaboration	5	23	28	4,5%	8,0%	7,0%
7. Diversity	11	11	22	10,0%	4,0%	5,5%
8. Internationality	7	10	17	6,5%	3,5%	4,5%
9. Support	4	25	29	4,0%	8,5%	7,5%
10. Flexibility	7	22	29	6,5%	7,5%	7,5%
11. Regeneration	20	37	57	19,0%	13,0%	14,5%
12. Bottom-up approach	3	10	13	3,0%	3,5%	3,5%
13. Individuality	0	7	7	0,0%	2,5%	2,0%
14. Place	5	42	47	4,5%	14,5%	12,0%
15. Inclusiveness	0	6	6	0,0%	2,0%	1,5%
Total	107	289	396			

Table 3   Results of coding - The Answer of The Sphinx (2013) & Vision for 2030: Places for Meeting (2012)

In total, I found 107 terms in the Sphinx report (Derix & Meys, 2013). I found 289 hits within the document on the overall strategy for Maastricht 2030 (2012). This adds up to 400 terms that can be related to the concept of the hub inso-far a hub is: creativity, community, innovation, entrepreneurship, economic growth, collaboration, diversity, internationality, support, flexibility, regeneration, bottom-up approach, individuality, place, and inclusiveness. Evident from the results is also that the municipality places most emphasis on the concept of regeneration (14,5%). Following at a second place is 'place' (12,0%). The latter results from a high number of counts in the 2030 vision. 'Place' is only mentioned 5 times in *The answer of the Sphinx*. In general, less attention is given to inclusiveness (1,5%) and individuality (2,0%). Economic growth has a similar percentage of mentionings in both documents (7,5%). A visual overview of the results can be found in Figure 1. The graph is shows that overall, the foci of the two policy documents are similar. Innovation is highly valued, as well as regeneration. Economic growth, and place show little peaks.

What is important is that creativity is only valued highly in the Sphinx document. For diversity, the Sphinx ambition plan also has a relatively higher count. What is neither visible from the table nor from the graph is the mentioning of

terms that are not necessarily related to hubs, yet still important to the municipality of Maastricht. Both documents place sustainability, a green environment, and climate neutrality at their core. Accessibility of the city centre and services is another important point. Finally, the aim of Maastricht to become cultural capital in 2018 – in 2013 still actual – is frequently mentioned (Gemeente Maastricht, 2012; Derix&Meys, 2013)
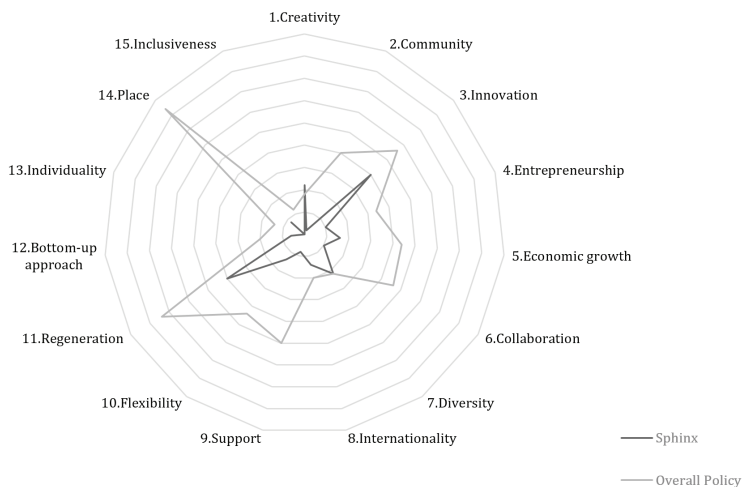

*Figure 1   Visual representation of results - The Answer of The Sphinx (2013) &
Vision for 2030: Places for Meeting (2012)*

5.2   Discussion

Both the Creative Hubs Network and the municipality of Maastricht hope to foster creativity (Derix & Meys, 2013; creativehubs.eu, 2016). This creativity is mostly mentioned in the ambition plan for the Sphinx. The term is less mentioned in the municipality's vision for 2030 (Table 3). Because of this, the Belvedère establishes itself as a cultural centre, making the case for my application of the hub to this quarter of Maastricht. The results of my analysis further support this view. They show similarities between the policy ideals of the Maastricht municipality and those of the European Creative Hubs Network. These similarities illustrate how the concept of the hub could be used in the pursue of policy ideals within the redevelopment of the Sphinx quarter. The similarities also illustrate how the hub could be used to explain steps already taken in the process of redevelopment.

Many of the tensions found within hubs are mentioned in the vision document for Maastricht (Gemeente Maastricht, 2012): for instance, the tension between the collective and the individual, or the tension between the local and the international. Furthermore, Maastricht aims, in line with the ideals of hubs, at innovation by "cross-sectorial benefits" (Gemeente Maastricht, 2012, p. 64) and a clash of interests. Maastricht aims at diversity of its facilities by combining multiple services at one location. Moreover, support to learning and entrepreneurship – especially starters and freelancers – is considered important for facilitating innovation (Gemeente Maastricht, 2012). In this light, new forms of (social) entrepreneurship and flexible working are promoted. A further similarity arises from the "international standards" (2012, p. 65) that the municipality adheres. These standards echo the international nature of the hub network. Finally, flexibility is also aimed for in both the hub and the redevelopment of the Sphinx. Maastricht does this by means of temporal functions, for instance: temporary nature concepts such as the Sphinx park (Derix & Meys, 2013, p. 23).

Although the Quartier des Arts resembles the hub at some points, there are differences that my analysis highlights. The hub has characteristics that are not present (yet) in the plans for the redevelopment of the Sphinx. I am convinced that these differences show points of improvement for the creative redevelopment of the Sphinx factory site. My points of improvement consider policy issues from the Maastricht 2030 vision that could be implemented in the Quartier des Arts but are not implemented yet. Furthermore, they consider what 'never-mentioned' values 'hubbing' could bring to the Sphinx quarter.

First, some values that are inherent in both the overall policy of the municipality (2012) and hubs are omitted in the redevelopment of the Sphinx. Community, inclusiveness and individuality play no role in the Sphinx ambition plan, whereas they feature in the municipality's vision for 2030 (2013). In *The answer of the Sphinx* (Derix & Meys, 2013) the municipality expresses the desire for "an active role in the planning" (Derix & Meys, 2013, p. 35) that concerns the former Sphinx. Partners are said to join along the way (Derix & Meys, 2013). Contrary to this view, the hub suggests the importance of having a community before even starting (Apostol, 2016). The value given to community building is so essential that there are even moving hubs without a physical 'home' (Matheson & Easson, n.d.). The hub concerns a bottom-up process in which individual actors play a great role. The first step in creating a hub is building up a community of individuals. If community building is done right, inclusiveness is part of the hub's outcomes (Toivonen & Friederici, 2014). The ideals in the vision of 2030 underscribe the community, individuality and inclusivity notions that play such great role in hubs (Toivonen & Friederici, 2014; Matheson & Easson, n.d.). I am

convinced that it would be a good thing to further these ideals within the former Sphinx area. The Sphinx could benefit from a more bottom-up approach in which the community of Maastricht is consulted without there being plans beforehand. Above all this would lead to a greater support and participation by individuals, and more inclusiveness. The hub has the potential to further the policies of *Places for meeting* (2012) within the Sphinx Quarter. A hub-outlook would positively add to the successful development of the creative vision on the Sphinx in three aspects: community, inclusiveness, and individuality.

Yet, I think that the hub can bring more to the Quartier des Arts than policies underscribe, because the hub presents several challenges for the strategic policies of the Maastricht municipality (2012). Firstly, hubs direct towards a broader view on creativity. In the documents of the municipality, the term 'creativity' is used as encompassing culture, i.e., arts and crafts, music and theatre (Gemeente Maastricht, 2012; Derix & Meys, 2013). In hubs, creativity can be nearly everything that goes beyond mere reproduction. Creativity signifies all forces that lead to innovation, be it technological or cultural, or even scientific (creativehubs.eu, 2016). Secondly, it should be noted that hubs are fundamentally different from clusters. Clusters are companies within one terrain, such as is currently the case within the Sphinx quarter, where Pathé, Lumière, Muziekgieterij, and Bureau Europa reside within the former factories. A cluster does not mean collaboration. The companies that are currently housed on the former factory terrain are separate entities. They have their own missions, which might be contesting. Sometimes they are competitors, as is the case with cinema's Lumière and Pathé. In contrary to a cluster, a hub is one organisation, with *one* mission (creativehubs.eu, 2016). In a hub, there is a common good, something to fight for together. This common good makes that resources and knowledge are shared more easily. Furthermore, face-to-face contact is simply facilitated. Finally, innovations happens faster. The Maastricht municipality focuses on innovation (2012). Therefore, transforming the Quartier des Arts from a cluster to a hub might be a fruitful development.

Finally, I would like to draw your attention to the spacious consideration of regeneration in the policy plans by the Maastricht municipality. Regeneration, or gentrification, is severely criticised. As showed in my literature review, the ideals of the hub are in line with this criticism. Aiming to be "the bohemian, cool and hip" (Derix & Meys, 2013, p. 29) will not make your city inclusive. Talent in the sense of a degree – knowledge economy – will not necessarily bring creativity and innovation (Rossler, 2011). The values underlying gentrification are very exclusive. The bohemian, cool, and hip have become the standard in a world in which the upper classes are bohemians themselves (Rossler, 2011). Letting go

of the ideal of economic growth as a result of creativity is hard, but necessary. The success of hubs shows that a focus on community – an inclusive one – and a sense of broad creativity foster innovation. In the long term this might result in economic growth; yet, this should not be the focus. This is what the hub prescribes (creativehubs.eu, 2017). Filling in the gaps of a "concept that remains unaltered" (Derix & Meys, 2013, p. 33) is unfortunately only a small step in letting go the idea of top-down gentrification that is so popularised in our society. Flexibility, named as a "key concept" in the municipality's vision for 2030, will not result from a pre-set idea or concept, nor from the guidelines of gentrification once prescribed by theorists such as Florida. Instead, innovative hubs "demand radical change by policymakers" (Borén & Young, 2013, p. 1801).

5.3   Policy implications

Ideally, the values outlined above would have been embraced earlier in the development of the Sphinx area. Unfortunately, this is not the case. The ambition plan of 2013 has witnessed its implementation. The Sphinx quarter currently is a cluster of creative companies. It is not a hub. Fortunately, there is a lot we – the municipality and its citizens – can do to create a more hub-like cluster of Sphinx companies. In this light, I would like to make the following suggestions:

1   We should try to make sure that the community of Maastricht initiates further developments within the Sphinx quarter. Community building is something that should come prior to all further steps that are taken. A suggestion would be to organise a collective brainstorm and develop plans accordingly. Primarily, we should insist that we reach a diverse audience with great communication.
2   We should aim to align the missions of the companies within the Sphinx cluster. This can be done by initiating fruitful collaboration and mutual interdependency between Pathé, Lumière, the Muziekgieterij and Bureau Europa. An idea would be to organise a yearly 'Sphinx festival'.
3   We should dare to let go of the control. This notion is related to the first suggestion. Citizen-led initiatives should be encouraged within the Sphinx quarter. This can be done by loosening the regulations surrounding permits for events. If a flexible environment is what you desire, you should be flexible yourself.
4   We should redefine creativity. Creativity is not necessarily cultural. Innovative enterprises or unexpected collaborations might make for very creative outcomes. It is important to take on a broad notion of creativity. For instance, by including non-cultural businesses within the creative centre of the Sphinx.

5 We should focus on innovation and community rather than economic growth by regeneration. This might be hardest to implement. It is also most costly. Think of supporting start-ups with great ideas, even if not profitable on the short-term. Or, support innovative concepts/events, even if they risk monetary failure. In the end, these initiatives will pay off. Yet, we should be careful not to make this our short-term goal.

6   Limitations

Some limitations to my research are important to highlight. Further research will be needed in order to establish a more complete vision on the ways in which the cultural hub can bring success to the further development of the former Sphinx. Policy documents are a good first step, but they eventually need to be complemented with other data.

A second limitation arises from the concept of the hub itself. The hub is presented as an ideal case in this paper, but I am aware that there are challenges to the concept. Often, financing hubs is a problem. Moreover, a hub's placement in an industrial area can undermine it from reaching the many. Furthermore, diversity is an ideal that is difficult to fulfil in a society where the creative is still very much the smart (Laterza, 2016). Finally, hubs are symptomatic for the art world. Balancing non-profit and profit interests is complicated. Next to this, hubs have broader societal goals that are not easily measured.

Another limitation has been noted earlier. The Sphinx quarter is no longer an empty factory. In 2016, several cultural companies have settled here. To come to full maturity, a hub should have been initiated earlier in the process. Nevertheless, I think that aiming for a more hub-like cluster of companies worthy and feasible step to take.

Finally, I must admit that hubs will not solve every possible challenge of the municipality. While hubs encompass multiple dimensions, this is not to say that they encompass everything. Accessibility for instance, one of the policy aims of the municipality of Maastricht (2012), will not be improved by the transformation of the Sphinx cluster in a hub. Neither does a hub necessarily lead to a more sustainable environment. Moreover, the hub will not reverse history and instantly transform Maastricht into the cultural capital of Europe.

7   Conclusion

Despite the limitations of my research, I am convinced that the concept of the hub can bring valuable additions to the Sphinx cultural center. Every strategy will have its disadvantages, and it is important to weigh them carefully and to investigate what is to be gained from them. The Sphinx quarter can benefit from a more hub-like development in several ways. Transforming the current cluster of companies in a hub will initiate a development towards more flexibility, a broader approach to creativity, and finally: faster innovation. Steps the municipality can take to foster these developments are: (1) making sure that the community of Maastricht initiates further developments within the Sphinx, (2) aligning the missions of the companies within the Sphinx cluster, (3) daring to let go of the control, (4) redefining creativity and (5) focusing on innovation and community rather than economic growth by regeneration. Above all, the presented study should be an encouragement for the city of Maastricht. Hubs might lighten up our view on the Maastricht debacle of the European Cultural Capital of 2018. We have dwelled too long on policies that were developed for it. The Quartier des Arts is one of these. As a city, however, we should look forward. We have to move on. The hub presents a new structural direction for fostering creativity in the city that might bring inspiration and a new focus to our cultural policy. Let us take the leap. *Maastricht, start hubbing.*

References

Apostol, R. (2016, September). *British Council: European Network of Creative Hubs.* Presentation at the conference Everyone is an Artist, Maastricht.

Belvedère Maastricht (n.d.). Social updates. Retrieved from http://www.belvedere-maastricht.nl/

Borén, T. & Young, C. (2013). Creative with the 'Creative City'? Towards new perspectives on creativity in urban policy. *International Journal of Urban and Regional Research, 37*(5), 1799-1815. doi:10.1111/j.1468-2427.2012.01132.x

British Council. (n.d.). European Creative Hubs Network. Retrieved from http://creativehubs.eu/about-european-creative-hubs-network

De Limburger. (2015, July 17). *Laatste restje van Sphinx weg uit Maastricht.* Retrieved from https://www.1limburg.nl/laatste-restje-van-sphinx-weg-uit-maastricht

Derix, G. & Meys, W. (2013). *Het antwoord van de Sphinx: ambitiedocument herijking programma Belvedère [The answer of the Sphinx].* Maastricht: Gemeente Maastricht. Retrieved from http://www.belvedere-maastricht.nl/wp-content/uploads/2013/10/@-Definitief-Boekje-Ambitie-document-Belvedere-2012-A5kl.pdf

Florida, R. (2003). Cities and the creative class. *City & Community, 2*(1), 3-19. doi: 10.1111/1540-6040.00034

Gemeente Maastricht. (2012). *Structuurvisie Maastricht 2030: Ruimte voor Ontmoeting II [Vision for 2030: Places for Meeting].* Retrieved from https://www.gemeentemaastricht.nl/fileadmin/files/GeMa/Doc/00_Algemeen/Structuurvisie_Maastricht_2030_Deel_II_29_mei_2012.pdf

Hoogen, Q. van den (2016, September). *Cultural policy research.* Lecture for the course Arts Policy & Politics, Faculty of Arts and Social Sciences, Maastricht.

L1. (2013). *Organisatie Maastricht Culturele Hoofdstad 2018: Heel erg jammer.* Retrieved from https://l1.nl/organisatie-maastricht-culturele-hoofdstad-2018-heel-erg-jammer-34219

Laterza, V. (2016, September). *Base Milano.* Presentation at the conference Everyone is an Artist, Maastricht.

Matheson J. & Easson, G. (n.d.). *Creative HubKit.* Edinburgh/Dundee: British Council. Retrieved from http://www.creativeconomy.britishcouncil.org

Rossler, M. (2011). Culture Class: Art, Creativity, Urbanism, part I. Retrieved from http://www.e-flux.com/journal/culture-class-art-creativity-urbanism-part-i/

Scott, A.J. (2010). Cultural economy and the creative field of the city. *Geografiska Annaler: Series B, Human Geography, 92*(2), 115-130. doi: 10.1111/j.1468-0467.2010.00337.x

Toivonen, T., & Friederici, N. (2015). *Time to define what a "hub" really is.* Retrieved from Stanford Social Innovation Review: https://ssir.org/articles/entry/time_to_define_what_a_hub_really_is

CHANGING THE WORLD, ONE WORD AT A TIME

The struggles of higher education and communicative action in a capitalist world

Author: Sergio Calderón-Harker

Abstract Debates within critical educational theory and its relation to capitalism have often been heavily influenced by the tradition of critical social theory. For instance, Jürgen Habermas' (1984; 1987) communicative action approach has proven to be a valuable theory that combines both analytical considerations regarding the conflict between the 'lifeworld' and 'system', and a decisively normative theory for deliberative and democratic discourse. However, Habermas' communicative action is not without problems, as a critical linguistic approach may prove. As such, in this paper I attempt to analyse the issues of communicative action in the context of anti-capitalist discourse and debate within and about higher education. To do this, I first outline Habermas' (1984) and Fleming's (2008) theories on the colonization of higher education, followed by a critique by means of Wittgenstein's (1968) philosophy of language. As such, I argue that, in order to decolonize higher education from the logic of capital, we must reflect upon the language-games used when speaking about education.

1   Introduction

Throughout the history of mankind, thinkers, theorists, and philosophers have argued that we find ourselves in a state of crisis, of constant conflict and transformation. To resolve this crisis, different philosophers prescribe different forms of analysis and subsequent modes of action. Karl Marx, for instance, analysed the history of the world as that of class struggle, suggesting that in order to alleviate the crises inherent in a capitalist world, a unified revolt must take place to create a new social order (Marx & Engels, 1969, p. 132). From this Marxist tradition, Jürgen Habermas (1987) provides his own synthesized analysis of our current capitalist reality, arguing that societal well-being is determined by a critical balance between the so-called *lifeworld* and *system*. Capitalist modernity, according to Habermas (1987, p.187), has allowed for the system to colonize the lifeworld. The latter, which serves as a stage for the creation and sustenance of cultural traditions and social integration, has been outweighed by the ever-growing imperatives from the system; dissimilarly, this sphere encompasses actions and relations characterized by a productive and economic nature. Productivity, profitability, and efficiency, for instance, have trumped the crucial significance of meaning-making and self-expression in the public sphere (Fleming, 2008; Habermas, 1987; Sloan, 1999).

Utilising Habermas' themes and analytical framework, Ted Fleming (2008) attempts to examine the current crisis of higher education. As such, he argues that a critical higher education is necessary for a democratic society. This type of education, however, has come into threat by the movement of system imperatives into the educational sphere, a space formerly distinguished by its capacity to bring into life and set in motion a plurality of lifeworld activities. Employing Habermas' (1984) normative conjectures, Fleming (2008) suggests that to resolve the current crisis, educational actors must create spaces for communicative action that will allow for critical discourse to be present in higher education. Nonetheless, the struggle for communicative action spaces in our current capitalist world may be hindered by major discursive forces that transcend the very act of deliberation. The question that must be posed, then, is: how can we realize the ideal of critical higher education in a world shaped by the colonization of the lifeworld by capitalist modernity?

In this paper, I argue that if we want to strive for a critical higher education, we must move beyond creating spaces for communicative action, and reflect upon the language games that we use when we speak about education. Only by changing the precise words, linguistic expressions, and conjectures utilized in the educational context can we create a truly critical and emancipatory edu-

cation. The ideal set forth by higher education may therefore be achieved by uprooting the educational language-games from system imperatives and the intricate logic of capital. To argue this, I first explain Habermas' (1984; 1987) theoretical framework and normative conjectures, exploring his lifeworld and system theory as well as his claim in support of communicative action. Following this, I depict the current problem of higher education through Habermasian lenses as outlined by Fleming (2008). Third, I explain Ludwig Wittgenstein's (1968) linguistic theory, finally discussing the challenge posed to the prescription of communicative action by the language-games of the system in the context of our capitalist reality.

2 Habermas' lifeworld and system, and the promise of communicative action

To outline his prescription of communicative action as an emancipatory and democratic discursive tool, Habermas (1987) first constructs an analytical framework through the notions of the lifeworld and system. By lifeworld, Habermas understands a background context of macro-level social processes that create and determine meaning: the reproduction and maintenance of cultural traditions and knowledge, personal and collective identity development and creation, as well as communicative and practical action aimed at the resolution of ethical and normative disputes (p. 119). Meanwhile, the system comprises activities related to productive operations essential for physical survival, encompassing the economy and labour practices (p. 155). In an ideal situation, where a critical balance between these two aspects is the norm, it is the social processes and meaning created in the lifeworld that determine and guide the functioning of the system (Sloan, 1999). For instance, if a community in a large city creates the collective meaning that their neighbourhood must be free of religious buildings, this would outweigh someone's desire to build a chapel, synagogue, or mosque in order to create more jobs for the community. Habermas (1987) argues that this is not the case under capitalist modernity, which has enabled processes that allow for the preference of economic and productive interests over meaning-making and personal and collective needs.

Moreover, by disrupting the critical balance, capitalist modernization has led to the so-called colonization of the lifeworld. This refers to the phenomenon through which the system invades and occupies the lifeworld, interfering in meaning-making activities among individuals and communities on a daily basis (Habermas, 1987, p. 154). In practical terms this means that system concerns,

such as efficiency, competitiveness, growth, and profitability, trump and displace lifeworld interests such as social norms, cultural meanings, morals and self-expression (Bolton, 2005; Sloan, 1999). In the case of the aforementioned community, capitalist reality would render the need for jobs and economic growth more important than communal values: the amount of capital accumulation produced by the project of building a religious establishment would outweigh the community's strict secular identity. This embodies what sociologist Max Weber described as *zweckrationalität* or instrumental rationality: the ability for the logic of capital to permeate into the thinking of individuals and thereby the public sphere (Sloan, 1999). In turn, this allows for the social order to sustain system needs in terms of economic efficiency and growth in place of cultural knowledge and values, solidarity, and personal identity (Bolton, 2005; Habermas, 1987). In this colonization, the logic of capital dictates and shapes the functioning of every day society, presenting itself as the underlying ideological form of system rationality.

In the face of the lifeworld colonization, Habermas (1984) proposes the creation of spaces for communicative action as an attempt to 'fix' the critical balance. Most importantly, communicative action offers a public and democratic discourse, with the aim of allowing for deliberation by members who stand on equal terms to one another. This is particularly characterized by actions of members being coordinated with the purpose of reaching inter-subjective understanding (p. 101). In addition, communicative action occurs in social situations of dialogue and deliberation where participants are not dominated by their own interest to succeed (p. 86). Instead, due to common understanding of situations, based on the premise that people may act rationally and in a disinterested manner, participants may reach a consensus in terms of the community's needs, finally making these their own (Bolton, 2005; Fleming, 2008). For instance, in the example of the community attempting to reject the construction of a religious building in their neighbourhood, communicative action would allow for members to come forth and, through a process of deliberation and rationalization, come to a consensus that results in the recognition and understanding of collective and subjective needs. Specifically, this would allow for the community to reinvigorate their secular values as a pillar of their collective identity, rejecting economic imperatives that would go against their meaning-making processes.

As a democratic procedure, Habermas (1984) points out that discourse in communicative action must be inclusive and transparent, allowing for all participants to have a say. In turn, this would also allow for the real needs of participants to be asserted and taken into account. As Fleming (2008) points out, communicative action would restore the critical balance by revitalizing "autonomous,

self-organised public spheres that are capable of asserting themselves against the media of money and power" (p. 10). For Habermas (1987), the promise of communicative action may allow for processes to be set into motion which result in the decolonization of the lifeworld, inverting the balance in order to allow for meaning-making to guide the functioning of system activities. However, to trump the colonization and domination of *zweckrationalität* and the logic of capital, communicative action may need to go beyond the creation of spaces themselves.

3   The colonization of higher education

In his paper *We are Condemned to Learn: Towards Higher Education as a Learning Society* Fleming (2008) problematizes the current state of higher education. He discusses ways to reach a more critical discourse in the field through the uses of Habermasian notions and theories. Fleming (2008) goes along with perhaps one of the most fundamental principles of critical higher education discourse, warning of the "dangers of allowing unregulated free-market capitalism set the agenda for higher education" (p. 3). Above all, this discourse identifies the necessity to reconfigure pedagogical practices, address inequality in society, and enhance social inclusion. Interpreting Habermas, Fleming (2008) argues that the revitalization of civil society and the maintenance of a critical public sphere are tasks that must be taken up by a critical higher education. However, the current state of higher education gives only little space for critical, let alone reflective discourse.

The colonization of the lifeworld has spilled over into the realm of higher education, with the system's agenda and values dominating public discourse both within and outside of academic territory. In turn, this realizes itself in a variety of ways. Most notably, the functional imperatives of the economy have colonised the way in which actors in higher education are conceptualized: students are seen as consumers and teachers as providers. As such, their relation may no longer be seen as one of pedagogical interaction, but of commodified communication. Furthermore, Fleming (2008) argues that "everything is judged by money. The price of everything is measured and students become unit costs" (p. 7). This underscores the managerial treatment of education, where students are no longer seen as social actors but as both investment assets and consuming subjects. Beyond the re-conception of students and teachers in terms of system logics, Fleming (2008) points out the architectural and campus design: physical spaces, crucial for social interaction and conversation, have been replaced by commercial ventures, banks, and coffee shops, to mention but a few. Instead of having spaces

to create a public sphere for dialogue, students and teachers are invited to consume to contribute to the economy; the physical space formerly used for deliberation and politicization is now taken over by the embodiment of system interests. The third aspect that Fleming (2008) points to is the role of e-learning and technology: the constant ability of teachers to centralize information and data about students' behaviour, and monitor and measure their interaction in an electronic panoptic. Students' behaviour and interactions become quantified, rendering them as merely analysable data (Fleming, 2008).

These three aspects mentioned by Fleming (2008) are by no means exhaustive, but serve to give a general account to the ways in which the lifeworld, in terms of higher education, has been colonised by capitalist imperatives and functioning. Rooted in the logic of capital, all these aspects embody the ways in which language itself has also been colonized by the system. From a Habermasian perspective, Fleming (2008) suggests the creation of spaces for communicative action as a learning project in higher education, which may serve to counteract and resist the colonization of the lifeworld. While this may seem like an important step towards building resistance against the hegemony of capital, it encounters one main and inexorable problem: language.

4   Resisting the logic of capital beyond communicative action

Both Fleming (2008) and Habermas (1984) point out the vital role of the public sphere in the project of de-colonizing the lifeworld. A critical higher education should therefore serve to foster the creation of spaces in the public realm where communicative action may occur. However, there is a challenged posed to the prescription of communicative action that both Habermas and Fleming ignore: the language-games used in these spaces to talk about certain topics and engage in discussion and deliberation. In the case of higher education, the language-games exercised have been invaded, or colonized, by the logic of capital. More precisely, the advent of modernity and the colonization of the lifeworld result in a very concise reality: capitalism oppresses the fundamental idea of critical higher education by determining the language-games that we use to talk about education.

First, however, it is necessary to outline the concept of language-games, as well as its relevance for the debate of critical higher education in our capitalist reality. Wittgenstein (1968) explains his notion of language games and meaning in an attempt to explore the role of language in the way we perceive the world. To him, every word that is spoken is part of a language-game: words and utterances

are context-dependent on the game in which they find themselves. For instance, when I go to the shop and ask for the price of a 'block' of paper, the word 'block' acquires its meaning in the context of both the purchase as well as its capacity to describe the amount of paper to be bought. 'Block', however, may also refer to a neighbourhood or conglomeration of streets. Even though the physical utterance may remain the same, the meaning of the precise word may change depending on how, where, and when it is uttered. Language is thus comprised of language-games, where a set of words are related insofar as they find themselves in the same context. Additionally, because language only has meaning in a specific context, we should not attempt to impose the rules of a certain language-game on another. This would subsequently pervert meaning and tarnish the use of language-games (Wittgenstein, 1968).

Wittgenstein's (1968) central thesis is that words in language-games are context dependent, leading their meaning to only be valid as part of a certain language-game. System notions, such as profitability, efficiency, and growth, are all part of a language-game that originates in the context of capitalist modernity. The colonization of the lifeworld brought about by capitalist modernization has effectively led to system notions such as profitability and efficiency displacing other interests, including meaning-making and communicative action, that are key to the nature of the lifeworld. It becomes clear that besides simply shifting, and in some cases eradicating lifeworld interests, the logic of capital embedded in the system imperatives has re-shaped the very meaning of the words we use when we speak about higher education.

As a space where meanings are constructed, where communication between actors occur, and where cultural knowledge is transmitted and even questioned, higher education represents perhaps one of the most intrinsically valuable spaces for the lifeworld. The crisis of higher education comes about as the functional imperatives of the system, with its agenda and discourse, usurp this realm. Alongside this, the colonization has brought with it the language-games used in the context of the system, crushing the language-games previously prevalent in higher education. Formerly, a specific type of language-game was used in the realm of higher education, primarily employed with the purpose of meaning-making, identity construction, and deliberation. The lifeworld colonization, first and foremost, has shifted away these language-games and replaced them with those rooted in the logic of capital.

There is a large variety of instances where this occurs. For example, we can take the re-conceptualization already pointed out by Fleming (2008) of students and teachers into consumers and providers. Imagine a situation that, though admittedly utopic, embodies Habermas' (1984) promise of communicative

action: a group of students and teachers come together for an assembly, where they aim to discuss their curriculum. Let us imagine that during the conversation, where each participant is allowed to speak and therefore reveal his or her real needs, students and teachers begin to discuss the quality of a certain course; as an example, we may imagine this is an introductory course in philosophy. While it may be clear from the content of the conversation that the students wish for the curriculum to integrate more critical, non-western thinkers, the very way in which these demands are phrased show the deep effect of lifeworld colonization. Assertions such as 'I paid a lot of money and expect the quality to be better' or 'I have worked so hard to not get what I want out of the course' embody the trap of system language-games. In both cases, there is an allusion to the logic of capital: while on the one hand a participant expects for his or her monetary investment to be remunerated, on the other hand there is a similar expectation for education to be a productive force where labour is compensated accordingly. 'Paying a lot of money' or expecting to 'get what I want from working hard' are both conjectures that make part of system language-games, as they could be commonly used in conversations that occur in primarily economic contexts. What this shows, above all, is the way in which capitalist modernity traps the ability of higher education actors to disclose their needs and concerns in a way that is not mediated through a language-game founded on the logic of capital.

Beyond this particular example, there are other ways in which system logic has come to shape words that are used on a daily basis in the context of higher education. For instance, 'educational investment', from both state and non-state actors, has become merely focused on enhancing the university's ability to create output in terms of human capital for the labour market. Investing in education, therefore, acquires a purpose that goes beyond the sphere of universities themselves. In this case, while it may directly relate to building better facilities or hiring 'better' teaching staff, the need for investment comes from the extrinsic necessity to accommodate to the needs of the labour market and consequently the economy. In a setup of communicative action, participants may consensually agree that there needs to be more significant funding for universities. However, the trap lies in the idea that calling for the increase of investment may fulfil a purpose that goes even beyond the needs they thought they were expressing: even if teachers and students believe investment could be conducive to enhancing their abilities to create and build a thriving critical education, it may instead result merely in the further marketization of universities and academic institutions. The impossibility of a critical discourse in higher education arises from the fact that capitalist modernity does not allow for the expression of language-games different to those of the system. The promise of communicative action finds itself

crushed at our inability to crawl out of the cage that the lifeworld colonization has created in our language; but in this scenario, what can be done to pursue the ideal of a critical higher education?

First, a way must be found to change the language-games that we use when speaking about higher education. It is upon this foundation that a critical discourse could be built, undisrupted by system logics. The methods through which this could be achieved are numerous: higher education institutions could attempt to consciously employ words and language-games that are not directly related to the logic of capital, or that even allow for challenging this logic. For instance, this may include the case of 'educational investment' previously mentioned. In addition, grassroots movements that advocate for an increase in spaces for political debate and deliberation could likewise attempt to consciously frame their discourse by means of language-games that are not fundamentally tied to system logics. Evidently, this shows that a possibility may arise from both a top-down institutional approach, as well as from a bottom-up grassroots initiative. However, parallel to creating spaces and opportunities for these language-games to be subverted, there must be an effort from a plurality of higher education actors to point out and lay bare the deep entrenching and establishing of the logic of capital into the ways that we talk about education. Bringing to light the strength with which our language-games are embedded into the system will allow not only for the formulation of a critique of this ever-growing occurrence, but also for the development of linguistic tools to counteract it. In face of what seems to be an inevitable trap posed by capitalist modernity against critical discourse, subversive and critical movements in, around, and beyond educational institutions must take up as their main cause the blatant exposure of the deeply rooted logic of capital in the way we talk and conceive of higher education.

5   Conclusion

This paper argued that that if we want to strive for a critical higher education we must move beyond creating spaces for communicative action, instead reflecting upon the language-games that we use when we speak about education. By first exposing and reflecting upon the language-games that we use when we speak about higher education, we can acquire the tools to articulate a critical discourse. In order to reach this conclusion, the paper pointed to Habermas' (1984; 1987) and Wittgenstein's (1968) theories on the colonization of the lifeworld and communicative action, and language-games respectively. In conjunction to this, it outlined the account of the current crisis in higher education as described by

Fleming (2008). Finally, it explained the challenge posed to the prescription of communicative action in the realm of higher education: the colonization of the lifeworld has also lead to the invasion of language-games originated in the system. Taking this into account, we must create different discourses about higher education where we are not constricted to the current language-games determined by the logic of capital. This process may be carried out in a variety of ways, originating from an institutional reform of language or from grassroots student movements attempting to 'think outside the box'. In any case, in order to alleviate the crisis that higher education has succumbed to as a result of capitalist modernization, we must be critical about the language that we use before we are able to start acting; if we want to change the world, we may have to do it one word at a time.

References

Bolton, R. (2005). Habermas's theory of communicative action and the theory of social capital, presented at the Association of American Geographers, Denver, Colorado, April 2005. Williamstown, MA: Williams College Press. Retrieved from https://pdfs.semanticscholar.org/4d37/90471aaf0ea2280aa701651ec97ba920934d.pdf

Fleming, T. (2008). We are condemned to learn: Towards a higher education as a learning society. *Level 3*, (6), 1-18. Retrieved from http://eprints.maynoothuniversity.ie/1053/1/WeArecondemnedToLearnTFleming.pdf

Habermas, J. (1984). Relations to the world and aspects of rationality in four sociological concepts of action. In T. McCarthy (Trans.), *The theory of communicative action: Vol. 1, reason and the rationalization of society* (p. 75-102). Boston, MA: Beacon Press.

Habermas, J. (1987). Immediate reflections: System and lifeworld. In T. McCarthy (Trans.), *The theory of communicative action: Vol. 2, lifeworld and system: A critique of functionalist reason* (p. 113-199). Boston, MA: Beacon Press.

Marx, K., & Engels, F. (1969). Manifesto of the Communist Party. In *Karl Marx and Friederick Engels Selected Works* (p. 98-137). Moscow: Progress Publishers.

Sloan, T. S. (1999). The colonization of the lifeworld and the destruction of meaning. *Radical Psychology, 1*(2). Retrieved from http://www.radpsynet.org/journal/vol1-2/Sloan.html

Wittgenstein, L. (1968). *Philosophical investigations. Wittgenstein.* New York, NY: Macmillan. (Original work published in 1953).

CAN MINDFULNESS BEAT ALZHEIMER'S DISEASE?

Author: Rachel Heutz

Abstract   The purpose of this paper is to identify to what extent the development of Alzheimer's disease can be delayed or prevented through the use of mindfulness-based interventions. Alzheimer's disease (AD) is a progressive neurodegenerative disease in which accumulation of amyloid plaques and neurofibrillary tangles (NFTs) play an important role. This leads to neuronal cell death and synaptic degeneration, especially in the default-mode network (DMN). No current effective treatment is available. Mindfulness has been related to an increase in volume and connectivity of the exact brain areas affected in AD. Therefore, mindfulness-based interventions (MBIs) such as mindfulness-based stress reduction (MBSR), meditation and yoga have been tested in people with mild cognitive impairment (MCI). MCI is seen as a transitional state between healthy age-related cognitive decline and AD pathology, hence an open window for early intervention. In this paper it is found that mindfulness has great potential to prevent AD-related pathology of the DMN, hence decreasing cognitive decline in people with MCI.

Keywords: Alzheimer's disease (AD), mindfulness-based interventions (MBIs), mild cognitive impairment (MCI), cognitive decline, default-mode network (DMN)

1   Introduction

With progressing age, people are often afraid of losing their mind due to the well-known fact that with aging comes a decline in cognitive functioning. Unfortunately, the brain´s aging process can advance even more rapidly than it should, causing significant problems in daily life. In these cases people are said to have *dementia*, which is caused by damage to brain cells (Dementia, n.d.). The most common form of dementia is the progressive neurodegenerative disease called *Alzheimer's disease* (AD), accounting for 60-70% of all dementia cases (Wong, Hassed, Chambers & Coles, 2016). People with Alzheimer's generally have characteristic symptoms, including problems with memory, thinking and planning, language and communication, and eventually lose the ability to respond to the environment or take care of themselves (Stages of Alzheimer's & Symptoms | Alzheimer's Association, 2017). These symptoms of Alzheimer's can become very severe. Therefore, research is being done to highlight the pathological hallmarks of AD and find a cure or treatment to slow down or prevent the development of the disease. Wong et al. (2016) proposed *mindfulness* as a possible non-pharmacological intervention to improve cognitive abilities and therefore prevent the development of AD. Mindfulness can be considered as non-judgemental awareness that arises from training your attention to be in the present moment (Creswell, 2017). At the moment, there is no cure or treatment that can slow down or stop the progression of AD. The only existing medical treatment consists of several types of drugs that are used to temporarily alleviate the symptoms of the disease. However, there is no conclusive evidence that this treatment actually improves cognition or delays the progression of the disease (Wong et al., 2016). As AD is the most common form of dementia, tackling this disease would have a great impact on the problems that come along with dementia. Around the world, 47.5 million people have some form of dementia, and this is estimated to increase with 7.7 million new cases each year (Latest Alzheimer's Facts and Figures, 2016). To make matters worse, AD is the sixth leading cause of death in the United States (Innes, Selfe, Khalsa & Kandati, 2016) and poses a huge burden on family and the economy. Thus, it is of great importance to find effective new forms of treatment for AD, as there is no current cure. Mindfulness-based interventions show great promise as an affordable non-pharmacological treatment option for AD. Growing evidence has linked mindfulness to changes in the structure of the brain (Luders, 2014), demonstrating that practicing mindfulness can increase grey matter volume and strengthen brain functional connectivity (Luders, 2014; Wong et al., 2016), the exact problems present in AD. Nevertheless, the scientific investigation of mindfulness is still in its infancy,

with only a limited number of completed studies and randomized trials (Luders, 2014). Consequently, the exact positive effects of mindfulness on cognitive decline have not yet been elucidated and should be further examined.

Therefore, this paper addresses the research question: To what extent can the development of Alzheimer's disease be delayed or prevented through mindfulness-based interventions? In the paper, it is argued that mindfulness-based interventions (MBI) have great potential to delay or prevent the development of Alzheimer's disease, as studies consistently show that mindfulness counteracts age-related grey matter atrophy and increases brain connectivity and brain volume in the exact brain areas that are affected in Alzheimer's. Firstly, the cause and progression of Alzheimer's disease is examined. Thereafter, the neurobiological effects of mindfulness in relation to AD are highlighted, after which the effectiveness of mindfulness training in individuals with mild cognitive impairment (MCI) is discussed. The paper ends with a conclusion of the findings in relation to the research question, the possible implications these findings have, and a discussion of present limitations.

2   The Cause and Progression of Alzheimer's Disease

Not everything is known about the cause of Alzheimer's disease; however, several neuropathological hallmarks have been found. These include brain atrophy due to synaptic degeneration and neuronal cell death at the macroscopic level, which are thought to be caused by amyloid plaques and neurofibrillary tangles (NFTs) at the microscopic level (Lista & Hampel, 2016). Brain atrophy essentially means that the brain shrinks dramatically in size due to the loss of neurons (see figure 1) (Dennis & Thompson, 2013). Consequently, the cerebral cortex, the outer layer of the brain, is mostly damaged. The cortex consists mainly of neuron cell bodies, and is called the grey matter (due to its greyish colour). Within the cortex are all the main areas that play a key role in most of our cognitive abilities. These include memory, attention, perception, awareness, thinking, language and consciousness. Shrinkage of the cortex due to cell death consequently means a loss of these cognitive abilities. Thus, brain atrophy leads to the characteristic progressive cognitive deterioration seen in all Alzheimer's disease patients. Some degree of cerebral shrinkage is part of the natural process of aging; however, in Alzheimer's disease this decline is rapidly accelerated, with specific brain areas hit hardest (Dennis & Thompson, 2013). A critical step in developing interventions to delay or prevent the rapid decline in AD is to determine how the course of decline differs from that of the normal aging process. One important

research focus has been the association between Alzheimer's disease and the formation and accumulation of amyloid plaques in the brain's extracellular space. These plaques are abnormal clumps of the amyloid beta (ab) peptide, originating from a larger amyloid precursor protein found in the membrane surrounding brain cells. Some 'misfolded' forms of these ab molecules can aggregate into soluble oligomers (Lista & Hampel, 2016), which build up in plaques. These plaques are thought to be toxic to nerve cells, resulting in synaptic dysfunction and loss (Lista & Hampel, 2016). In this way, the formation of misfolded forms of the amyloid beta peptide molecules are thought to play a crucial role in the pathology of Alzheimer's disease. In addition to these plaques, so-called neurofibrillary tangles (NFTs) play a crucial role in AD pathology (as exemplified in figure 2 and 3). These NFTs are made up of another protein: tau. All healthy cells have a transport system made of proteins, which is organized in orderly parallel strands (like railroad tracks). The tau protein helps the strands remain straight so that vital molecules can travel along them within the cell (Brain tour, 2017). In AD, tau dissociates from the strands and self-aggregates into twisted strands called tangles (NFTs) (Lista & Hampel, 2016). As a consequence, the strands of the transport system cannot stay straight and the system collapses (see figure 2) (Lista & Hampel, 2016). Essential molecules like nutrients can no longer travel through the cells, eventually leading to cell death (Brain tour, 2017) and, consequently, contributing to the onset of Alzheimer's disease. By using various brain imaging techniques scientist have been able to identify which brain areas are most affected by plaques and NFTs. The default-mode network (DMN) has been consistently linked to Alzheimer's disease. The DMN is thought to represent a brain system made up of several anatomically connected and interactive brain areas (Dennis & Thompson, 2013; Buckner et al., 2008). The system is deactivated when a person is not focused on an external task, such as visual attention, or during cognitive working memory tasks. It becomes active the moment someone goes into wakeful rest during, for example, daydreaming or mind-wandering (Dennis & Thompson, 2013). Mind-wandering often involves thinking about oneself or others, remembering the past or envisioning the future. These are all examples of internally directed or self-generated thoughts, which include autobiographical or episodic memory retrieval (Buckner et al., 2008). The activity during internally oriented tasks is thought to be necessary for memory consolidation (Dennis & Thompson, 2013). As memory is exactly the cognitive domain which is highly impaired in Alzheimer patients, there appears to be a convincing link between AD and the default-mode network. Consistent with the clinical manifestation of Alzheimer's disease that impaired memory is one of the first symptoms, cortical structures linked to memory are the first areas to be affected in the dis-

ease (Buckner et al., 2008; Serra et al., 2015). Amongst others, the hippocampus, which is part of the DMN, is often already damaged by plaques and NFTs before symptoms emerge and AD is diagnosed (Serra et al., 2015). The hippocampus is involved in the storage of information into long-term memory and the retrieval of memories. As the disease progresses, the plaques and NFTs spread through the cortex in a pattern that is remarkably similar to the anatomy of the default-mode network (see fig.3) (Buckner et al., 2005; Dennis & Thompson, 2013; Serra et al., 2015), leading to overall functional disconnection within the network. Thus, plaques and NFTs seem to accumulate in the DMN, affecting this network even before symptoms emerge. The question is why specifically these regions are most affected. Several theories have been proposed to explain why the default-mode network is particularly vulnerable to AD pathology. Buckner and colleagues (2005) found that there is a striking correlation in the brain areas involved in DMN activity in young adults and the brain regions affected by amyloid deposition in AD. This finding led Buckner and colleagues to the idea that the continuous activity of the network, and with that the high metabolic rate, directly relates to - or even causes - AD pathology. They called this idea the *metabolism hypothesis*. The preferential use of the default network throughout life may lead to increased accumulation of ab protein and the pathological consequences. This theory explains why memory systems may be preferentially affected in patients with AD, as these systems play a central role in resting brain activity as part of the DMN. The theory is supported by the finding that formation of the amyloid precursor protein (APP) is dependent on neuron activity (Simic, Babic, Borovecki, & Hof, 2014). Since regional increases in neuronal activity are linked to regional increases in the concentration of APP, it may be possible that due to their constant activity, DMN neurons produce and release more APP than occur elsewhere in the neocortex. This, in turn, leads to an increase in production, oligomerization, and aggregation of the ab protein as well as formation of NFTs. Formation of NFTs is presumably caused by the released ab oligomers (Simic et al., 2014). In short, brain areas involved in the default-mode network (DMN) are the most affected in Alzheimer's disease, which can be seen from the accumulation of amyloid plaques and NFTs in these areas. This can be explained by the metabolism hypothesis that states that the almost continuous activity of the DMN leads to increased production of the ab protein. The DMN regions are highly involved in memory, hence disruption leads to memory problems characteristic in Alzheimer's disease. What becomes apparent is that an effective treatment for AD would encompass either the preservation or regeneration of areas affected in AD. To what extent this is possible with mindfulness based interventions will be analysed in the following section.
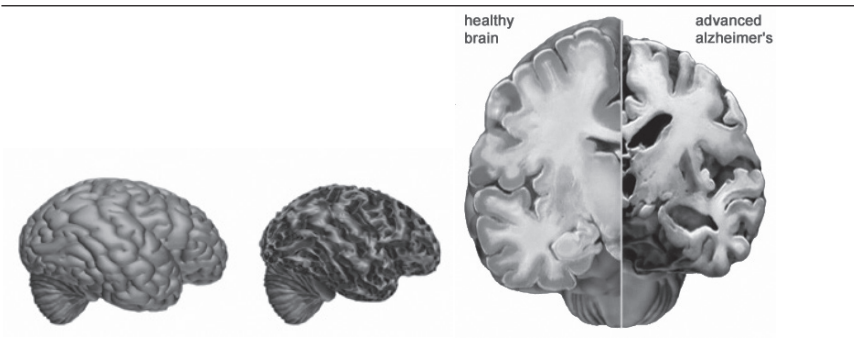
*Figure 1   Brain atrophy; shrinkage of the cortex due to neuron loss
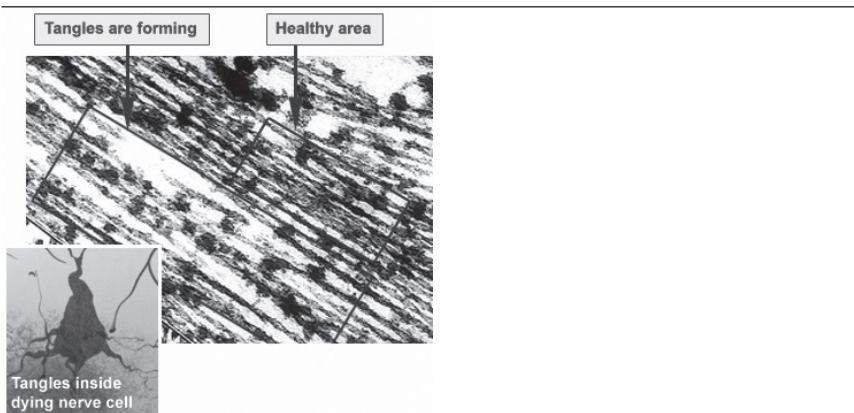in AD (Brain tour, 2017).*

*Figure 2   The difference in transport system between healthy
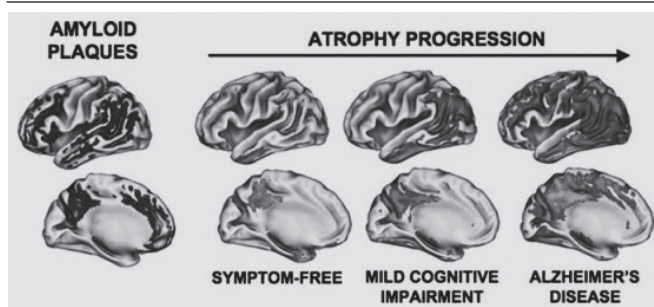and dying brain cells (Brain tour, 2017).*

*Figure 3   Plaques and NFTs spread through the cerebral cortex
in a predictable pattern in AD (Buckner et al., 2008)*

3   Mindfulness and the brain

Mindfulness can be defined in several ways; however, in this paper mindfulness is defined as a way of training attention and fostering awareness with a non-judgemental attitude (Wong et al., 2016). Mindfulness or mindful meditation has been taught in different ways, both in private settings as well as in clinical or research settings. Examples of clinical or research forms are mindfulness-based interventions (MBIs), such as mindfulness-based stress reduction (MBSR), or mindfulness-based cognitive therapy (MBCT) (Brewer et al., 2011). In this section, the physical and mental health effects of these programs are studied to discover how mindfulness affects us and our brains. Although mindfulness research is still in its infancy, there are already several studies that have explored the use of mindfulness-based interventions. Research indicates that mindfulness training is associated with positive cognitive, behavioural and neural changes in both healthy and clinical populations (Larouche et al., 2014; Luders, 2014). Some studies even suggest that sustained mindfulness practice may have a neuroprotective effect against age-related decline (Larouche et al., 2014; Luders, 2014). Based on growing evidence it is therefore thought that mindfulness training may potentially be a feasible and affordable, effective, non-pharmacological treatment approach to improve cognitive function in patients with neurodegenerative diseases, such as AD (Wong et al., 2016). The interesting question remains then, how does mindfulness training enhance cognition and possibly prevent neurodegenerative diseases? Several pathways have been proposed through which mindfulness training can have beneficial effects on cognition. Of these pathways, one is particularly interesting in relation to Alzheimer's disease. Research shows that the hippocampus and other regions of the default-mode network (DMN) are typical areas involved in the practice of meditation or mindfulness exercises (Holzel et al., 2008; Luders et al., 2013). Moreover, studies have shown that mindfulness practice has positive effects on brain volume, gray matter concentration, and brain functional connectivity (Luders, 2014). These findings combined suggest that mindfulness training can prevent the pathological characteristic of AD, namely tissue loss in the hippocampus, progressive loss of gray matter, and decreased functional connectivity in the DMN (Wong et al., 2016). For this reason, it is interesting to look at how mindfulness accomplishes its positive effects on the default-mode network. As mentioned above, when we are distracted or inattentive our brain switches to default mode. Our mind wanders. This can also be seen as being unmindful, since mindfulness is defined as being attentive and aware of the present moment. Mindfulness has been found to switch off the DMN. Brewer et al. (2011) investigated brain activity in experienced meditators

and meditation-naive controls during several kinds of mediations. Results show that across all meditation types, the main regions of the DMN were deactivated in experienced meditators, which was not the case in the controls. Moreover, functional connectivity analysis revealed stronger connections between the main regions of the DMN both at rest and during meditation (Brewer et al., 2011). Greater connectivity within the DMN of meditation practitioners has also been found by Jang et al. (2010) and Taylor et al. (2012), confirming that mindfulness practice strengthens present-moment awareness. These findings show that mindfulness can decrease DMN activity, thus preventing amyloid accumulation and thereby increasing resistance to the disruption in functional connectivity of the DMN as seen in Alzheimer's disease. This idea is supported by studies that show differences in the atrophy of DMN regions between people practicing mindfulness and controls. The foremost used method to investigate the effect of mindfulness in relation to Alzheimer's disease is to either compare the brains of (experienced) meditators to those of healthy mindfulness-naïve controls, or compare the brains of healthy participants who have been given a mindfulness training and healthy controls. In this way, it has been consistently found that the hippocampus differs between meditators and non-meditators (Luders et al., 2013). Two different structural studies both detected significant larger grey matter concentration in the right hippocampus (Holzel et al., 2008), and greater right and left hippocampal volume (Luders et al., 2009; Luders et al., 2013).These findings were complemented by functional imaging studies using positron emission tomography (PET) scans or functional magnetic resonance imaging (fMRI), which show that, in both novice and expert meditators, there is increased brain activity in the left and right hippocampus during meditation or mindfulness exercises (Engström, Pihlsgård, Lundberg & Söderfeldt, 2010; Luders et al., 2013). Furthermore, investigations of pre-post changes in brain gray matter concentration and volume in participants of mindfulness-based interventions show promising results in other areas besides the hippocampus as well. For instance, Lazar et al. (2005) examined the link between age and cortical thickness, as shrinkage of the cortex (brain atrophy) is a characteristic symptom of aging, aggravated in those with Alzheimer's disease. The authors compared meditators and controls with respect to their cortical thickness, which revealed significant group differences between both groups. The average cortical thickness of the 40- to 50-year-old meditators was similar to the average thickness of 20- to 30-year old meditation and control participants. Additionally, the results showed that in the control group cortical thickness decreased significantly with age, whereas the decrease was nonsignificant in the meditation group, explaining why meditator´s cortical thickness is similar to that of younger participants (Lazar et al., 2005). Similar

results have been replicated in other studies (e.g., Pagnoni & Cekic, 2007) and thereby provide strong evidence for the argument that mindfulness practices could prevent or delay the age-related neuronal changes seen in Alzheimer's disease. One might object here that it is not clear what causes the difference in brain anatomy between mindfulness practitioners and non-practitioners. It has been suggested that people that practice mindfulness may have innate unique cerebral differences that attract them toward mindfulness in the first place or help them continue ongoing practice (Luders, 2014). Moreover, the anatomical changes could be due to confounding variables, such as diet or a difference proneness to cognitive and neural aging between the subjects (Pagnoni & Cekic, 2007). However, there is more scientific support for the possibility that the actual practice changes brain anatomy. Recent brain imaging studies provide direct evidence for meditation-induced anatomical changes, such as increased gray matter volume and density. Based on this research, two underlying mechanisms have been proposed to explain the anatomical changes found in the brains of mindfulness practitioners. On the one hand, the less significant loss in gray matter in meditators can possibly be explained by a link between meditation, or other mindfulness practices, and neuroprotection. The neuroprotective effect of meditation possibly slows down the rate of age-related neurodegeneration (Lazar et al, 2005; Luders, 2014). There are several studies supporting this idea with evidence. Luders, Cherbuin and Kurth (2015), for example, studied the link between age and whole-brain gray matter in meditators and healthy controls. They found that, in both groups, age-related gray matter decline was present, however the slope the regression line was significantly steeper in controls than in meditators. This indicated that in meditators, the age-related loss of gray matter is less profound than in non-meditators (Luders et al., 2015). On the other hand, it is thought that engaging in mindfulness practices can possibly induce changes as a result of neuroplasticity. This includes mainly neurogenesis and synaptogenesis (Luders, 2014). This idea is supported by research. For example, Hölzel et al. (2011) found that participation in an eight-week MBSR course is associated with increases in grey matter concentration in brain areas involved in learning and memory processes, emotion regulation and self-referential processing. Moreover, Pagnoni and Cekic (2007) found that in meditators total gray matter increased over time, suggesting that there are mechanisms that not only preserve (neuroprotection) gray matter, but also induce growth (neuroplasticity). These results show that mindfulness practices can indeed prevent neurodegeneration and even induce the growth of new brain cells, leading to an increase in gray matter volume. Finally, there is even evidence for a genetic effect of mindfulness, resulting in physiological changes, such as neuronal growth and slowed age-related decline. Dusek et

al. (2008) assessed healthy, long-term practitioners of daily mind-body practices (group M), healthy individuals who completed 8 weeks of training in those practices (group N2), and controls (group N1). They found that 2209 genes were differently expressed in daily mindfulness practitioners group compared to group the healthy individuals who received training group, and 1561 genes in the latter groupcompared to the control group. Moreover, the mindfulness group and the mindful training group shared 1561 differentially expressed genes, indicating that even in novice meditators (after only 8 weeks of practice) genes were already affected. Gene analyses showed that the affected genes play significant roles in biological processes important for preventing cellular damage (Dusek et al., 2008). All these studies support the suggestion that mindfulness-based intervention may be an effective non-pharmacological treatment approach to improve cognitive function and potentially delay or prevent the development of Alzheimer's disease by counteracting the characteristic pathological brain atrophy of the default-mode network regions.

4   Effectiveness of MBI in people at risk for AD

In general, Alzheimer's disease develops rather slowly, and is often preceded by preclinical forms of cognitive decline. This preclinical condition is called *mild cognitive impairment* (MCI), and is characterized by a wide range of cognitive deficits similar to those present in AD (Larouche, Hudon & Goulet, 2014). Mild cognitive impairment is, therefore, often seen as a transitional state between healthy age-related cognitive decline and dementia (Innes et al., 2016). Risk of development into Alzheimer's in individuals with MCI is very high; 5-15% of people with MCI convert to AD each year (Innes et al., 2016), which is 2.5 times higher risk than in healthy aging (Eyre et al., 2016). Those with *amnestic mild cognitive impairment* (aMCI), primarily affecting memory, are most at risk. Their memory deficits are caused by AD-related pathology - plaques and NFTs - starting in the same memory-related brain areas involved in the DMN as in Alzheimer's (Larouche et al., 2014). The idea that mild cognitive impairment could possibly be a transitional state in the development towards Alzheimer's disease is evident from studies showing the connection between their pathologies. Serra et al. (2015) found that people with MCI show a more severe pattern of regional gray matter atrophy and default-mode network disconnection, similar to AD. Additionally, decline in the hippocampus has been found to be a biomarker of MCI and a good predictor of progression towards AD (Larouche et al., 2014; Innes et al., 2016). There is growing evidence that premature interventions in people with MCI can restore

cognition, and possibly postpone the onset of AD by interrupting the neuro-pathological progression leading to the disease (Larouche et al., 2014). The slow development of AD together with the occurrence of the preclinical phase MCI, caused by AD-related pathology, offers an opportunity for early intervention. To date, there are no approved treatments for people with MCI, but mindful-ness-based interventions may offer a form of treatment that specifically addresses the risk factors for conversion to AD. As seen in the previous section, mindful-ness holds promise for slowing down or possibly preventing cognitive decline. However, it is questionable whether people experiencing cognitive problems can be asked to follow mindfulness programs. Innes and colleagues (2016) tested this by asking participants to follow a home-based relaxation program daily for 12 weeks, and afterwards as often as they liked for the following three months. They found that practice adherence was excellent with 93% of the sessions com-pleted in the first 12 weeks, and 71% during the following three months (Innes et al., 2016). Moreover, questionnaires revealed a high satisfaction with the pro-gram. Therefore, the study concluded that mindfulness programs are feasible in adults with early memory loss (Innes et al., 2016). This conclusion is sup-ported by the findings of Wells et al. (2013a), who assessed safety and feasibility of MBSR in the form of eight, two-hour weekly sessions of meditation and yoga, plus one mindfulness retreat day in individuals with MCI (n=14). The authors systematically recorded class attendance and used questionnaires and qualita-tive interviews to assess well-being of the participants. Average class attendance was 7.9 out of 9.0. The interviews showed that most participants enjoyed the MBSR program, leading to the conclusion that adults with MCI can safely partic-ipate in such a program. Overall, these two studies show that experiencing cog-nitive problems does not reduce one's capability to follow a mindfulness pro-gram. Next to mindfulness-based interventions being feasible, scientist recently have started to test whether these interventions lead to the expected outcomes in people with MCI or other forms of early cognitive decline. While several stud-ies have shown differences in brain structure between meditators and non-med-itators (see previous section), it is relevant to examine whether such changes also occur in older adults with less extensive training. Although this field of research is in its early stages, several studies have found positive results. Smart et al. (2016) tested the effect of mindfulness training (MT) specifically in older adults. The training involved cultivation of moment-to-moment attention regula-tion as well as development of mindful attitudes (non-judgemental awareness and nonreactivity). The training consisted of several different practices, such as gen-tle yoga and sitting meditation. The results show a robust change in the percent-age of brain volume of participants receiving MT, compared to the control group.

This shows that structural neuroplasticity (lasting change) does occur in older adults exposed to shorter periods of mindfulness training. Several other studies have found promising results of mindfulness-based stress reduction (MBSR) interventions as well. For instance, the study by Wells et al. (2013a) showed a trend towards reduced hippocampal atrophy in the MBSR group. This trend was not found in the group receiving usual care for MCI. Additionally, the authors found increased functional connectivity post-MBSR between the hippocampus and the posterior cingulate cortex (PCC) and the medial prefrontal cortex (Wells et al., 2013a; Wells et al., 2013b). These areas are three core areas of the default-mode network involved in memory, and the exact areas that are affected early in MCI or AD pathology. Thus, MBSR interventions may influence connectivity within the default-mode network in people with MCI, possibly improving memory function. Other types of mindfulness-based interventions have also been tested on people with mild cognitive impairment. An example is the study by Eyre et al. (2016), which examined changes in neural connectivity and memory following a yoga intervention. Yoga is believed to enhance neuroplasticity processes, such as the production of brain derived neurotrophic factor, a protein that encourages neuronal growth (Eyre et al., 2016). The yoga group (n=14) showed brain activity changes related to memory improvement, mainly increased connectivity within the default-mode network. This suggests that yoga might be an effective form of mindfulness intervention to enhance memory recall. Overall, research shows that mindfulness based-interventions may be effective treatment options to prevent or delay Alzheimer's disease, as mindfulness counteracts the neuropathological process leading to cerebral and cognitive decline. Lastly, it is important to examine whether the effect of mindfulness programs are comparable to those of existing therapies for people who may have Alzheimer's disease. To do this, Quintana-Hernández and colleagues (2014) designed a study in which they compared mindfulness-based Alzheimer's stimulation (MBAS) to the most used non-pharmacological therapies. These include cognitive stimulation therapy (CST) and progressive muscle relaxation (PMR), as well as to a control group (caretaking-at-home). In all cases, the therapy was combined with the use of medication (donepezil), except the control group who only received medication. The intervention consisted of weekly 90-minute group session and lasted two years for all groups (n=8). The results revealed that all cognitive abilities assessed were maintained for two years within the MBAS group. In contrast, the scores on assessment in the group receiving medication alone or in combination with PMR began to decrease from six months onwards (Quintana-Hernández et al., 2014). The results were equivalent to those in the CST group. Thus, mindfulness appears to be a very good option for non-pharmacological treatment, as it is

equal to CST and has greater long-term efficiency compared to other treatments. This study also provides preliminary evidence for possible long-term effects of mindfulness in AD.

5   Conclusion and Discussion

This paper found a strong link between mindfulness and Alzheimer´s disease, which answers the research question: to what extent can the development of Alzheimer's disease be delayed or prevented through mindfulness-based interventions. Based on the findings discussed in this paper, it can be concluded that mindfulness-based interventions (MBIs) have great potential to delay or prevent the development of Alzheimer's disease. This is based on the fact that mindfulness and meditation have been consistently associated with specific brain areas that are affected by AD (Brewer et al., 2011, Wong et al., 2016). Evidence can be found in studies that show that mindfulness counteracts age-related grey matter atrophy and increases brain connectivity and brain volume in the hippocampus and other regions of the DMN (Luders et al., 2013, Holzel et al., 2008, Holzel et al., 2011). Furthermore, several studies have shown that mindfulness-based interventions have positive outcomes for people with mild cognitive impairment (MCI), who are at greater risk to develop Alzheimer's disease (Wells et al., 2013a, Wells et al., 2013b, Eyre et al., 2016). All these results show that mindfulness may be a feasible non-pharmacological treatment approach for improving cognitive function and preventing the development of Alzheimer's disease. Mindfulness' positive effect on cognition indicates possible usefulness in other neurodegenerative diseases, for instance Parkinson's disease. Moreover, several other interesting applications are possible, for example in dementia due to brain injury or another disease. These could be interesting avenues for future research. It is important to keep in mind, though, that the exact mechanisms behind the effect of mindfulness on neuroplasticity and cognition are not fully understood. Although current research is on the right track considering the positive effects found, there is still a lot to be examined in this field of research. For instance, the combination between mindfulness and medication shows great potential (Quintana-Hernández et al., 2016). Exploring this further might help to increase the effectiveness of mindfulness-based interventions. Consistent findings support the usefulness of mindfulness-based interventions in Alzheimer's disease; however, caution has to be taken when drawing conclusions. Research into mindfulness and AD is in its infancy. The extent to which mindfulness is effective as a treatment approach is not yet clear, as several limitations are present in the methodology of the studies that pro-

vide evidence. First of all, most studies reviewed in this paper included small sample sizes. Hence, results should be interpreted as preliminary. Moreover, mindfulness-based interventions involve factors other than mindfulness that could have positive influence on people at risk for AD and are often not controlled for. These include social and intellectual engagement, a weekly commitment, and instructor attention. Lastly, most studies used a mindfulness program of eight weeks, and the long-term effects of mindfulness-based interventions are yet to be discovered. Follow-up studies with larger sample sizes are needed to improve the reliability of the current findings, as well as studies using long-term interventions to examine whether mindfulness will actually prevent Alzheimer's in people at risk. Despite these limitations, this paper has shown that mindfulness-based interventions hold great promise to delay or prevent the onset of Alzheimer's disease, giving new and important insight into the prevention and management of this disease.

References

Brewer, J. A., Worhunsky, P. D., Gray, J. R., Tang, Y., Weber, J., & Kober, H. (2011). Meditation experience is associated with differences in default mode network activity and connectivity. *Proceedings of the National Academy of Sciences,108*(50), 20254-20259. doi:10.1073/pnas.1112029108

Buckner, R. L., Snyder, A. Z., Shannon, B. J., LaRossa, G., Sachs, R., et al. (2005). Molecular, structural, and functional characterization of Alzheimer's disease: Evidence for a relationship between default activity, amyloid, and memory. *Journal of Neuroscience, 25*(34), 7709–17. doi:10.1523/jneurosci.2177-05.2005

Buckner, R. L., Andrews-Hanna, J. R., & Schacter, D. L. (2008). The brain's default network: Anatomy, function, and relevance to disease. *Annals of the New York Academy of Sciences. 1124*(1), 1–38. doi:10.1196/annals.1440.011

Brain Tour: An Interactive Look Inside. (2017). Retrieved January 21, 2017, from http://www.alz.org/alzheimers_disease_4719.asp

Creswell, J. D. (2017). Mindfulness Interventions. *Annual Review of Psychology, 68*(1), 491-516. doi:10.1146/annurev-psych-042716-051139

Dementia | Signs, Symptoms & Diagnosis. (n.d.). Retrieved January 22, 2017, from http://www.alz.org/what-is-dementia.asp

Dennis, E. L., & Thompson, P. M. (2014). Functional brain connectivity using fMRI in aging and Alzheimer's disease. *Neuropsychology Review, 24*(1), 49-62. doi:10.1007/s11065-014-9249-6

Dusek, J. A., Otu, H. H., Wohlhueter, A. L., Bhasin, M., Zerbini, L. F., Joseph, M. G., Libermann, T. A. (2008). Genomic counter-stress changes induced by the relaxation response. *PLoS ONE, 3*(7). doi:10.1371/journal.pone.0002576

Engström, M., Pihlsgård, J., Lundberg, P., & Söderfeldt, B. (2010). Functional magnetic resonance imaging of hippocampal activation during silent mantra meditation. *The Journal of Alternative and Complementary Medicine, 16*(12), 1253-1258. doi:10.1089/acm.2009.0706

Hölzel, B. K., Carmody, J., Vangel, M., Congleton, C., Yerramsetti, S. M., Gard, T., et al. (2011). Mindfulness practice leads to increases in regional brain gray matter density. *Psychiatry Research: Neuroimaging, 191*(1), 36–43. doi:10.1016/j.pscychresns.2010.08.006

Hölzel, B. K., Ott, U., Gard, T., Hempel, H., Weygandt, M., Morgen, K., & Vaitl, D. (2008). Investigation of mindfulness meditation practitioners with voxel-based morphometry. *Social Cognitive and Affective Neuroscience, 3*(1), 55–61. doi:10.1093/scan/nsm038

Innes, K. E., Selfe, T. K., Khalsa, D. S., & Kandati, S. (2016). A randomized controlled trial of two simple mind-body programs, Kirtan Kriya meditation and music listening, for adults with subjective cognitive decline: Feasibility and acceptability. *Complementary Therapies in Medicine, 26*, 98-107. doi: 10.1016/j.ctim.2016.03.002

Jang, J. H., Jung, W. H., Kang, D. H., Byun, M. S., Kwon, S. J., Choi, C. H., et al. (2011). Increased default mode network connectivity associated with meditation. *Neuroscience Letters, 487*(3), 358–362. doi: 10.1016/j.neulet.2010.10.056

Larouche, E., Hudon, C., & Goulet, S. (2015). Potential benefits of mindfulness-based interventions in mild cognitive impairment and Alzheimer's disease: An interdisciplinary perspective. *Behavioural Brain Research, 276*, 199-212. doi: 10.1016/j.bbr.2014.05.058

Latest Alzheimer's Facts and Figures. (2016, March 29). Retrieved January 16, 2017, from http://www.alz.org/facts/

Lazar, S. W., Kerr, C. E., Wasserman, R.H., Gray, J.R., Greve, D.N., Treadway, M.T., Fischl, B. (2005) Meditation experience is associated with increased cortical thickness. *Neuroreport, 16*(17), 1893–1897. doi: 10.1097/01.wnr.0000186598.66243.19

Lista, S., & Hampel, H. (2017). Synaptic degeneration and neurogranin in the pathophysiology of Alzheimer's disease. *Expert Review of Neurotherapeutics, 17*(1), 47-57. doi:10.1080/14737175.2016.1204234

Luders, E. (2014), Exploring age-related brain degeneration in meditation practitioners. *Annals of NewYork Academy of Sciences, 1307*, 82–88. doi:10.1111/nyas.12217

Luders, E., Cherbuin, N., & Kurth, F. (2015). Forever Young(er): potential age-defying effects of long-term meditation on gray matter atrophy. *Frontiers in Psychology, 5.* doi:10.3389/fpsyg.2014.01551

Luders, E., Toga, A. W., Lepore, N., & Gaser, C. (2009). The underlying anatomical correlates of long-term meditation: larger hippocampal and frontal volumes of gray matter. *Neuroimage, 45*(3), 672–678. doi: 10.1016/j.neuroimage.2008.12.061

Luders, E., Thompson, P. M., Kurth, F., Hong, J.-Y., Phillips, O. R., Wang, Y., Toga, A. W. (2013). Global and regional alterations of hippocampal anatomy in long-term meditation practitioners. *Human Brain Mapping, 34*(12), 3369–3375. doi: 10.1002/hbm.22153

Pagnoni, G., & Cekic, M. (2007). Age effects on gray matter volume and attentional performance in Zen meditation. *Neurobiology of Aging, 28*(10), 1623-1627. doi: 10.1016/j.neurobiolaging.2007.06.008

Quintana-Hernandez, D. J., Miro-Barrachina, M. T., Ibanez-Fernandez, I. J., Santana-del Pino, A., Quintana-Montesdeoca, M. P., Rodriguez-de Vera, B., Bravo-Caraduje, N. (2016). Mindfulness in the maintenance of cognitive capacities in alzheimer's disease: A randomized clinical trial. *Journal of Alzheimers Disease, 50*(1), 217-232. doi:10.3233/jad-143009

Serra, L., Cercignani, M., Mastropasqua, C., Torso, M., Spanò, B., Makovac, E., Bozzali, M. (2016). Longitudinal changes in functional brain connectivity predicts conversion to Alzheimer's disease. *Journal of Alzheimer's Disease, 51*(2), 377-389. doi:10.3233/jad-150961

Simic, G., Babic, M., Borovecki, F., & Hof, P. R. (2014). Early failure of the default mode network and the pathogenesis of Alzheimer's disease. *CNS Neuroscience & Therapeutics, 20*(7), 692–698. http://doi.org/10.1111/cns.12260

Smart, C. M., Segalowitz, S. J., Mulligan, B. P., Koudys, J., & Gawryluk, J. R. (2016). Mindfulness training for older adults with subjective cognitive decline: results from a pilot randomized controlled trial. *Journal of Alzheimers Disease, 52*(2), 757-774. doi:10.3233/jad-150992

Stages of Alzheimer's & Symptoms | Alzheimer's Association. (2017). Retrieved January 21, 2017, from http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp

Taylor, V. A., Daneault, V., Grant, J., Scavone, G., Breton, E., Roffe-vidal, S., et al. (2013). Impact of meditation training on the default mode network during a restful state. *Social Cognitive and Affective Neuroscience, 8*(1), 4–14. doi: 10.1093/scan/nsr087

Wells, R. E., Kerr, C. E., Wolkin, J., Dossett, M., Davis, R. B., Walsh, J., et al. (2013a). Meditation for adults with mild cognitive impairment: a pilot randomized trial. *Journal of the American Geriatrics Society, 61*(4), 642–645. doi: 10.1111/jgs. 12179

Wells, R. E., Yeh, G. Y., Kerr, C., Wolkin, J., Davis, R. B., Tan, Y., Kong, J. (2013b). Meditation's impact on default mode network & hippocampus in mild cognitive impairment: a pilot study. *Neuroscience Letters, 556*, 15–19. doi: 10.1016/j.neulet.2013.10.001

Wong, W. P., Hassed, C., Chambers, R., & Coles, J. (2016). The effects of mindfulness on persons with mild cognitive impairment: Protocol for a mixed-methods longitudinal study. *Frontiers in Aging Neuroscience,8*. doi:10.3389/fnagi.2016.00156

MODERN CATHOLICISM AND FEMALE IDENTITY

Religious identity in contemporary society

Authors: Johannes Aengenheyster & Caitlin Masoliver

Abstract   This research explores the experiences of young Catholic women in contemporary Western European society. Using qualitative research methods, several in-depth interviews reveal how young Catholic women's identities are structured and negotiated within an increasingly secularized society. It shows that young women today emphasize values of tolerance and indiscriminate love over traditional Catholic teachings. Furthermore, community serves as an important frame of reference for their religious engagement. The findings offer interesting comparisons and contradictions to the existing literature in the field.

1   Introduction: Religion in the context of a secularizing society

In the last fifty years, Western Europe has seen an unprecedented rise in secularisation. There are more agnostics and atheists than there are religious people in Britain; 70% of Dutch people do not identify as religious (Zuckerman, 2016). Religion and religiosity are in decline, and it is becoming increasingly unusual for younger generations to adopt such strong religious beliefs as their ancestors (Zuckerman, 2016). According to Haynes (1997), major societal changes of increasing democratization and individualization from the 1960's onwards began

this process of secularisation. Individuals born in the later years of the 20th century experienced more secular societal norms, and consequently have a higher chance of leaving or being absent from the church. There are, however, still a high number of individuals who identify themselves as religious, something becoming increasingly difficult as secularisation increases. Not only are religious believers confronted with a society growing ever more dubious and hostile towards their faith, but they are presented with social values and ideas that contradict those they have been taught by their religion. Especially when considering gender and religion, improvements in socio-economic and legal equality of the sexes on the societal level have not led to a similar reform of traditionally patriarchal Catholic dogma and formal teachings, with women limited to lay positions rather than clergy (Ozorak, 1996). In an increasingly secular society with hostile views and stereotypes of religion, it is relevant to explore how younger individuals following Catholicism experience their identity and conception of self, to uncover lived experiences beneath these stereotypes and further explore the paradoxical relationship between society and church tradition. In doing so, one can add work to the concept of secularisation, and see how, despite this, religion persists in the modern world. According to Fearon (1999), an individual's identity is formed by labels and rules that mark individuals as members of one social category or group, and by the characteristics a person takes pride in. Using this definition, this research explores young Catholic's experiences of their identity within the social group of their religion, and the personal values and meaning surrounding their faith. The research question was thus formulated as "How do young Catholic women experience and define their religious identity within an increasingly secularized Western Europe?". To answer this, the paper begins with a literature review on contemporary and female religiosity. It then addresses the methodology used to conduct the research. The two main themes which encompass our findings are then presented, the first referring to the heightened importance of values over teachings for participants, and the second addressing the significant role of community in their faith. These two themes are indicative of the paper's core finding that there is a decrease in the importance of institutionalized elements of religion and an increase in a more self-reflective, inclusive experience of religious identity.

2 Literature Review

The body of research around the topic of women and religion is becoming increasingly of interest to the scholarly community. Regarding Christianity, one explanation of this could be due to a trend that women, regardless of their age,

outscore men on all levels of religiousness. Women are more likely to pray, attend church, participate in religious organised events, and to claim that their religion is important to them (Trzebiatowska & Bruce, 2012). This is especially interesting considering that Christianity is, typically, patriarchal and therefore inhospitable in their teachings and beliefs surrounding participation of women, such as their exclusion from the clergy. Ozorak (1996) has explored this paradox between female experience of traditional religious teachings and their own perception of their rights and place in society. As they face prejudice in every "fibre of the religious establishment" (Ozorak, 1996, p. 17), empowerment of women within the Church is difficult. She shows that women, in order to cope with underlying gender inequalities of the Church, experience faith in terms of relationships and community, rather than perceiving it in terms of hierarchy and power. The Church community, mostly built of and by women over decades, is supportive in cases of personal difficulties, by allowing women to work together and form close relationships with their surrounding community (Ozorak, 1996).

Another important element of personal identity refers to one's experiences of their sexuality. Women's experiences of their sexuality have been shown to be conflictual with modern Catholicism in an increasingly secular and open society. As the Catholic Church continues to use binary distinctions for genders and their roles, men and women are seen to differ on essential biological and spiritual levels (Becher, 1991). This is manifested in an affirmation of so-called traditional gender roles, according to which men are active, assertive and providing, while women are emotional and caring. This gendered differentiation is seen as resulting in a complementary drive to the loving, natural union of marriage. Consequently, the doctrine condemns a variety of sexual practices that counteract the "divine law", such as those that are individual (masturbation), homosexual, without love (prostitution), extra-institutional (premarital), evade procreation (contraception), or deny marital fidelity (adultery) (Becher, 1991). To what extent this influence manifests into shaping the identity, sexual behaviour, and principles of its followers is unknown. This introduces an interesting gap for exploring to what extent the Church shapes female sexual identity, and their perceptions to sexual-related topics such as homosexuality and contraception.

From an historical perspective on gender, sexuality, and the role of family in the Church, Wuthnow (2010) suggests that the Catholic Church is experiencing a "crisis in institutions". This holds that the majority of its community involvement revolves around early marriage and families with children, which is based on the society of the 1950s. As the Church has not adapted to the prolonged emerging adulthood of contemporary society, for example by addressing the trajectories of singles and couples without children, it has lost much of its younger

membership. Its focus on sexual ethics rather than other issues felt to be more important, such as social justice, means it is becoming increasingly irrelevant in the lives of potential younger followers (Dillon, 1996).

3   Methodology

The nature of gathering data for our research consisted of interviews, with one researcher interviewing each participant individually. Participants consisted of female students at Maastricht University identifying as Catholic. In terms of the age demographic, the literature review exposed interesting information on young adolescents and teenagers practicing religion in modern society. For newer generations, the traditional teachings of the Church are seen as "out of touch" with the problems that they perceive as more important, and irrelevant to the society in which they live (Wuthnow, 2010). Furthermore, as students ourselves, it felt easier to connect with individuals of a similar age.

To find participants, we first posted on Facebook for potential participants, approached fellow students who expressed interest, then contacted a student chaplaincy in Maastricht. This chaplaincy is organized by a group of Sisters who hope to create a "safe-space" for young Catholics to discuss and share their religion, forming a close community away from the potential judgement from society. We attended mass followed by several dinners hosted by the Sisters, and through this channel met and spoke with students who might be interested in participating in our research. We contacted participants found on each of these platforms for further interviews by which data was collected directly. While initially participant observation was planned to be used for gathering data, the Sisters expressed concern about making students attending the dinner uncomfortable. We therefore used the Church visitations as a platform for building rapport and relationships with potential participants.

The interviews were conducted over a four-week period, and after gaining informed consent from participants, lasted between thirty minutes to one hour. In total, seven individuals were interviewed. An overview of the participants can be seen in Table 1; pseudonyms were used in the transcribing process to protect the anonymity of participants, thus names referred to hereafter are fabricated.

The nature of the interviews was holistic and semi-structured. The general themes for the interviews were planned and inspired by content of the literature review, and a list of preliminary questions was made under each theme. These themes entailed first a general background and upbringing of the individual, followed by the role of religion in their childhood, the role of religion during

Name of participant	Country of origin	Age
Alexandra	Germany	20
Amy	Germany	22
Catherine	Germany	22
Jane	The Netherlands	20
Patricia	The Netherlands	23
Rachel	Mexico	24
Sarah	England	20

Table 1   Summary of the participants

their transition to University and living away from home, their experience of platonic and sexual relationships, and ending with the most pivotal elements of religion for them personally. The recorded interviews were transcribed, and coded according to themes highlighted in the literature review and to other themes that emerged throughout the conversations. These codes highlighted the main themes in the research that emerged through each of the interviews, two of which will be elaborated on in the body of this paper.

4   Theme I: Values over teachings

An idea present throughout the interviews was the women's focus on what they classified as "values", rather than "teachings" often associated with the Catholic Church. When speaking of values and teachings, the interviewees had a shared, albeit implicit, definition; teachings referred to rules, based on dogma, that individuals are told to live their lives by, such as "no sex before marriage", or prohibiting homosexuality, and rituals such as praying before bed and attending Church every Sunday. Contrasted with these teachings were more general values, fundamental to one's character and manifested in their behaviour, such as being indiscriminately kind and tolerant towards others. For example, Rachel refers to these as "little decisions everyday where you can feel the religion"; Amy refers to "Christian values, like respect and love and whatever...don't kill, don't hurt, don't judge"; Sarah says it "is a very Christian thing to do, putting others before myself". Though varying in degree, all participants considered the way one chooses to live one's life and the principles behind these decisions more valuable than rituals and dogmatic teachings. Whilst the values were spoken of highly by participants, "teachings" were more oppressive, and less important to follow.

Contraception, abortion, and sex before marriage were mentioned by several participants as teachings they had chosen not to implement in their life. When referring to the work of Becher (1991) discussed in the literature review, this suggests that traditional Catholic teachings are losing relevance and therefore have a reduced influence on young Catholic's construction of their identity.

Furthermore, the anti-homosexuality teaching for example was seen as unnecessary and outdated by all participants, and several spoke of hope for future progression and change. Equal participation was regarded as far more important than the more exclusive traditional teachings, which several participants termed superfluous and lacking justification. This was less the case for one interview participant from Mexico (Rachel), who was more cautious when criticising the Church's teachings, however she also expressed hope for change. How one feels towards traditional teachings on homosexuality was discussed by Jane as the choice of the individual, and not the choice of the people making up the Church, or those who wrote the Bible. A divisive line between values and teachings was thus seen as present throughout the discourse of the participants. "Oppressive", "restrictive", and "exclusive" are just a selection of the language in the discourse around traditional teachings, suggesting that for young contemporary Catholics, their identity is influenced less by the institutional rules of the Church, and constructed more around self-reflective values that the individual considers important on their own.

The distinction between values and principles held by the individual and what is officially taught by the Church as right and wrong is also discussed by Amy. She speaks of how she rejects being told "you can't do this", or "this should not be", saying it is "something that [she doesn't] participate in", as she does not understand its purpose. For her, the idea of Catholicism as a safe place allowing for indiscriminate participation holds more significance than the Churches directions and teachings, reflected also by Rachel who argues that "God cannot be exclusive". This illustrates how, for modern Catholicism, religious identity and what individuals derive as the meaning of their religion is far less related to the dogma and formal teachings of the institution, and moving more towards a progressive, inclusive, and individually driven ideology.

Sarah speaks most explicitly on the distinction between personally derived values, and teachings from authority figures. She reflects on her experience of dealing with conflict between her own values, and what the Catholic Church teaches as right and wrong. She suggests, almost with an ironic undertone, that if the ritualistic praying before bed, saying grace before meal time, and going to Church every Sunday is what truly makes one a Catholic, she is "a really shit Catholic". Sarah follows by making a conscious division between her own beliefs and the teachings of the "Catholic religion" as "two different things". In mentioning that in choos-

ing not to follow the instructed teachings of the Catholic Church, Sarah highlights the idea that this makes her by definition, a "shit Catholic". Her beliefs and values derived from her religion are viewed as something separate to the direct teachings of Catholicism, and this is a separation she has made consciously in her mind. This discourse of not following the teachings of Catholicism making one a bad Catholic is also present in the interview of Jane and Amy. This, however, was said in all cases with a light-hearted tone, illustrating their apathy towards this suggestion. Although drawing from a small sample size, the overall theme of values in relation to teachings throughout the interviews conducted was that, for these women, the teachings of Catholicism are not as relevant as they were before. Both Sarah and Jane explained their disagreement with the Church's teachings on sex, contraception, and marriage to living in a more modern era where premarital and homosexual sex is less disapproved of by society. What took priority were the inner-core principles one holds, the desire to do good and to help others. Amy, for example, speaks of how "constricting" she finds the Church's teachings, and that for her own experiences, to focus on her own values of being a good person to others was the most important element of her belief. This supports the claim of the paper that for modern Catholicism, one's religious identity is decreasingly built on the rituals and dogma of the church institution, and more on the individual's self-reflection and personal idea of morality.

One explanation of the decline in importance of traditional teachings may be due to their decreased relevance for young adolescents. According to the research of Walter and Davie (1998), for modern Catholic women the more traditional teachings are losing relevance and significance, as they are confronted with societal values and norms that differ with that of their religion. Sarah reflects this idea, stressing that due to "living in the 21st century", her experience will differ greatly from that of her parents, as the context surrounding what is appropriate is so different. Throughout all the interviews, there was a common idea expressed that the Church as an institution had little influence over the values participants felt were important. There was an explicit reference in both Jane's and Rachel's interviews that individuals in high-level positions in the Church are not dictating what they take out of their religion and implement into their lives. The Church as an institution is almost brushed aside when it comes to the individual's decision to implement teachings, and is certainly criticised for its dogmatic style. A more reflective, spiritual focus on values fundamental to one's character as a 'good person' takes higher priority. Considering the centrality of the Vatican in shaping Catholicism officially, this idea is interesting as on the micro-level it reflects a declining importance of traditional dogma, and a more self-reflective and autonomous decision over the values one deems part of their identity.

5   Theme II: Community structuring religious identity

All women mentioned the importance of community in the interviews. Furthermore, all participants describe community as positive, since it supports their well-being and the practice of their faith. In line with this, they did not recount many negative experiences from their religious environment, such as peer pressure or being forced to attend Church by parents or relatives against their will. Overall, our findings are very much in line with Ozorak's (1996) argument that women, as a response to unequal official structures of the Church in a society with increasingly equal status of men and women, view the Church in terms of community, rather than hierarchy. Regarding women's exclusion from the clergy, Patricia, reduces their importance by stating that "[she] simply [doesn't] care very much", although she also describes herself as "[being] all for women's rights, and equality, and gender based stuff". What is emphasized instead is indeed the social environment of Catholicism, for example when Alexandra states that "it's the people who make up the community and not the priest". This emphasis on community, rather than hierarchy, holds true for all participants. However, more patterns in regard to community can be seen when comparing the life trajectories of the women. Table 2 shows that participants can be classified based on whether or not they grew up in a religious household, and whether they are actively practicing at the time of the interview (It is worth noting that such binary distinctions, while based on the data, are made for the sake of argument and not to claim that religious experiences can be reduced to dichotomous variables).

For the five women who grew up in practicing religious families and experienced religion in their upbringing, typical activities involved attending mass, praying at home (in the morning, before meals, or before bed), and reading the bible. Their parents were furthermore often involved in their respective parishes through maintaining friendships, holding social events, performing liturgical activities, and taking on organizational and financial tasks. Religion permeated their friendships and social activities: All of these women participated in religious group activities, such as the scouts, youth groups, altar service, church choir or pilgrimages, which offered ample opportunities for socializing. Amy thus states, referring to her childhood and early teens, that religion was "kind of dictating [her] social life for a while".

Of these five women, nobody except Rachel was still actively practicing. While it may seem contradictory that many who are not currently practicing still identify as Catholic, it indicates that experiences of religious upbringing leave long-lasting impacts that continue to shape identity even in absence of practice.

	Practicing	Non-practicing
Religious upbringing	Rachel	Amy
		Sarah
		Alexandra
		Catherine
Non-religious upbringing	Jane	
	Patricia	

Table 2   Categorization based on upbringing and current practice.

Their decline of faith was characterized by the absence of Church attendance and community involvement in Maastricht. The importance of religiosity in guiding their life after moving out to enter university or to do voluntary work decreased as well, exemplified by Amy's description of herself as "currently more atheist than Catholic". Meanwhile two of the three individuals actively practicing their religion had grown up in households that did not place much emphasis on a religious upbringing. Rachel, the Mexican student, is an outlier in both cases, and indicates that these trends are specifically situated in Western Europe.

In order to analyse these different life courses, the role of religious community in socialization and identity formation is worth investigating. Wuthnow (2010) observes that historically and contemporarily, the community focus of the Catholic Church is fundamentally linked to the nuclear family life. This is supported by the interviewees. While the Catholic Church provides many activities and involvement that appeal to children and adolescents and parents, it lacks possibilities to engage other demographics, including young adults. This is indicative of both social change, as the period of emerging adulthood has greatly increased, as well as stagnation of Catholic community focus. This means that the traditional institutions of Catholic socialization become increasingly ineffective, since the identity fostered by a Catholic upbringing contrasts so much with that of young adult life that the former is often abandoned.

Furthermore, and in line with this, it seems that the community focus becomes the constitutive element of religion, which explains the decrease of religiosity as women leave their religious families and communities. Amy supports this interpretation, discussing how she "used to be devout mainly because of the structure of it, [she] wasn't truly a believer, it was more like because it was comforting and [she] had friends", and accounting her loss of such strong Catholic faith to the fact that "all the good parts of it were falling apart...my family wasn't with me, and [neither were] my friends". In contrast to this, the women that became more involved with religion later in their life obviously lack such

community experiences during childhood. On from when they started practicing religion in their teenage years, community involvement constituted only one of the reasons live a religious life. Jane even explicitly denies that community played a role in her transformation process, stating how she would go to Church "just for going there, purely, for the religious reason, and not necessarily because of the community". This is not to say that these women do not value community, as they still describe social engagements in the chaplaincy, in their parishes or at mass events in a very positive tone. Consequently, their faith is a "combination of more elements [than community]" (Jane), such as the personal conviction of the meaningfulness of religion, which is not effectively conveyed through the institutions of religious socialization in Catholic households and communities.

Another difference between the women which grew up religiously and those which became involved only later in life is that the former see religious community primarily in non-religious terms. Amy describes her experience of the World Youth Day 2011 in Madrid, while labelling it her "best religious memory" without using religious vocabulary: "My friends and I were just like running around the city and with like our flag, and met other people and took loads of pictures with random people who also had flags from different countries". While the event is obviously a religious one, the lack of religious terminology makes it resemble other popular large scale social events, for example a music festival or concert. Meanwhile the women who discovered religion later in life and see community as one element among others, value it differently by attaching an explicit religious dimension to it: Jane, recounting the World Youth Day in Krakow in 2015 as a formative event of her religiosity, sees a spiritual element in her connection to other people: "you could really feel that there was […] like the 'presence of God', […] it connected all of us". Besides varying depth of internalization of religious identity, it is shown again that it is barely constituted through traditional formal religious structures, as a more personal understanding comes to the fore.

6   Conclusion

This research illustrates a trend that the importance of institutionalized elements of religion are decreasing, and a more self-reflective, inclusive experience of identity is growing. This is reflected first in the importance of individual values inherent to one's character as a 'good person', rather than on the traditional teachings so often associated with the institutional structure of the Catholic Church. It is further reflected in the experience of religion through the lens of community, where acceptance and indiscriminate love are pivotal, rather than the tradition-

ally hierarchical and patriarchal institutional structure. This research brings new work to the field of religious studies and sociology, and challenges pervasive stereotypes in society of Catholicism as anti-progressive, homophobic, and highly dogmatic. This is of interest for both researchers in the field of religious studies, but also for the wider audience of believers and atheists alike. By shedding light on some aspects of Catholicism in contemporary society, this research proposes new avenues for future research. The phenomena of young individuals getting more religious, the inclusion of religion in everyday life, and mechanisms of coping with stereotypes are all interesting grounds for further investigation.

References

Becher, J. (1991). *Women, religion, and sexuality: Studies on the impact of religious teachings on women.* Philadelphia: Trinity Press International.

Dillon, M. (1996). The persistence of religious identity among college Catholics. *Journal of Scientific Study of Religion,35*(2),165-170. doi: 10.2307/1387083

Fearon, J. (1999). What is identity (as we now use the word). *Unpublished manuscript.* Stanford University, Stanford,Calif.

Haynes, J. (1997). Religion, secularisation, and politics: A postmodern conspectus. *Third World Quarterly, 18*(4), 709-728. doi:10.1080/01436599714722

Ozorak, E. (1996). The power, but not the glory: How women empower themselves through religion. *Journal for the Scientific Study of Religion, 35*(1), 17-29. doi:10.2307/1386392.

Trzebiatowska, M., & Bruce, S. (2012). *Why are women more religious than men?* New York: Oxford University Press.

Walter, T., & Davie, G. (1998). The religiosity of women in the modern West. *British Journal of Sociology, 49*(4), 640-660. doi:10.2307/591293

Wuthnow, R. (2010). *After the baby boomers: How twenty-and thirty-somethings are shaping the future of American religion.* Princeton University Press.

Zuckerman, P. (2016, December 05). Religion declining, secularism surging [Blog post]. Retrieved from http://www.huffingtonpost.com/phil-zuckerman/religion-declining-secula_b_9889398.html

REMINISCENES OF MORALS

A socio-psychological analysis of bystander unconsciousness in Waltz with Bashir

Author: Nahal Sheikh

Abstract In atrocities, bystanders might find themselves in a limbo-like state where it is extremely difficult to react responsibly to an occurring injustice. This article investigates the complex character of a bystander through a social-psychological analysis of Ari Folman's animated documentary film, *Waltz with Bashir* (2008). Theories of norm learning and delinquent behaviour are used to understand the unconscious self-perception of the protagonist, Ari, of his bystander role in the Sabra and Shatila Massacre of 1982. It is claimed that since Ari unconsciously sees himself as a perpetrator of the massacre, his behaviour as an innocent witness who bears no ethical responsibility creates a tension that continues to haunt him.

1   Introduction

As humans, our feelings of empathy allow us to share another person's sense of distress. As Charles Darwin (1871) explained, when pain or distress is witnessed by a person, the witness experiences the subject's discomfort. Because of this reason he or she tries to alleviate another person's agony, which in turn reduces the witness's own empathetic misery. However, Darwin does not explain the ori-

gin of such compassion and why it fails to exist in some human beings in certain times of need (Ekman, 2010). The present article attempts to unravel the complex dynamics of empathy by analysing Ari Folman's (2008) animated documentary film, *Waltz with Bashir*. The analysis borrows from a larger theoretical framework of the so-called Atrocity Triangle in which the role of three essential 'actors' – that of the perpetrator, the bystander, and the victim – are assumed to act in relationally interconnected ways during a conflict (Smeulers & Grunfeld, 2011). Through Waltz with Bashir, the bystander nature is explored from a micro-level perspective in order to investigate the protagonist's subjective self-perception of his or her role in an atrocity. For the sake of clarity, the name 'Folman' is used to refer to the film's director, whereas 'Ari' is used for the protagonist since the director himself poses as the main character. Focusing on Ari, a micro angle examines how he internalizes the 1982 Sabra and Shatila Massacre as traumatic, and how this influences his experiencing the event as a collaborative perpetrator rather than an uninvolved witness who bears no ethical responsibility.

By analysing Ari's actions in such a way it is possible to escape from deterministic stereotypes that label bystanders as either innocents without any agency or as active perpetrators supportive of atrocious policies. Instead, this article's peculiar approach allows for a complex analysis of the above two perspectives to understand the very tension bystanders may face subjectively. With the help of Schwartz (1968) and Sykes and Matza (1957), a comprehensive theoretical framework for Folman's film is laid out. Schwartz's work sketches out the 'Norm Activation Model' which explains how an actor fails to perform responsibly in a morally sensitive situation, otherwise known as in-action. Sykes and Matza add several environmental conditions which shape delinquent behaviour to Schwarz's theory. Through these, this article explores how Ari experiences his bystander role in the Sabra and Shatila Massacre through the constant tension he faces between his conscious and unconscious mind. Beginning with a brief case study of the massacre, Waltz with Bashir is analysed theoretically mapping out his apathetic behaviour during the incident. In conclusion, it is found that although the theoretical framework helps understand Ari's in-action during the atrocity, it fails to acknowledge the suppressed deterred trauma he experiences that haunts him years after the incident. The various faces of a bystander are revealed, presenting a personalized perspective to the massacre.

2   Case Study

2.1   The Sabra and Shatila Massacre of 1982

In June 1982, Israeli forces invaded South Lebanon to remove Palestinian fight-ers who were attacking northern Israeli towns (Malone, 1985). The mission was to occupy Beirut and appoint a Christian Phalangist ally, Bashir Gemayel, as the President of Lebanon (Anziska, 2012), thereby eradicating the ongoing threat to Israel. Suspicious of Israel's acts, the Lebanese tried to negotiate while the fight-ers penetrated Beirut's outskirts (Malone, 1985). Finally, a treaty was signed allowing Israel Defense Forces (IDF) to evacuate all Palestinian combat fight-ers from the city to Tunisia. In return, Israel would not invade further (Lormand, 2008). Simultaneously, Bashir Gemayel became President of Lebanon, but was subsequently assassinated in a bomb explosion. It was assumed this was done by Palestinian conspirators who stood against the Lebanese puppet leader (Waltz with Bashir, n.d.). The same afternoon, IDF entered Beirut and surrounded a Palestinian refugee camp called Sabra and Shatila. Massive Phalangist forces, driven by revenge for their dead leader, entered to wipe out Palestinian combat fighters, who in fact had already been evacuated to Tunisia two weeks earlier. Those left were innocent men, women, and children (Waltz with Bashir, n.d.). For three whole days, the Christian forces massacred everyone in the refugee camps with utmost brutality, leaving approximately 3,500 civilians dead (IMEU, 2012). During this incident, the IDF stood aside knowing thousands of innocent lives were being attacked night after night (Lormand, 2008; Anziska, 2012).

2.2   Waltz with Bashir: Diving into Ari's unconscious

Woken up in the middle of the night by friend, Ari hears about a recurring night-mare his friend, Boaz, is haunted by – being fiercely chased by twenty-six dogs. They both conclude the nightmare has a connection to their Israeli Army mission in the 1982 Lebanon War. Triggered by this, Ari has the first flashback of his presence at a beach in Beirut during the night of the Sabra and Shatila Massacre. Deeply shocked at this being the only recollection he has of the time, he remem-bers himself, pale and gloomy, slowly rising from the sea's dark waters with two other soldiers, naked, holding machine guns while watching the sky lit up in flares (See Fig.1) (Adams, 2016; Lormand, 2008).

Figure 1   Ari in the flared up sea (Folman, 2008, 08:01)

Folman made the animated documentary Waltz with Bashir driven by an exploration into his twenty-six-year-old historical role during the Sabra and Shatila Massacre (Yosef, 2010). Is the fogged memory of the Mediterranean Sea's gloomy shores from the massacre? Was he an accomplice in the killings? Or did he just stand there as the Phalangist militias eradicated the refugee camp? He has no answers.

Troubled by inconsistent reminiscences in the form of dreamy images and flashes, Ari meets and interviews several of his old comrades around the world to find out whether he was present during the massacre and what role he played. Folman (2008) narrates this wrestling journey through hallucinatory animations that takes the viewer outside the realms of ordinary documentaries. Such techniques can be interpreted as a way to highlight the puzzling contextual paradigm of a bystander to a crime finds himself in, subsumed by the constant tension between his conscious behaviour and unconscious thought – discussed further below. The friends Ari meets, the conversations he has, and the buried obscurities he provokes are all visualized in equally mystifying forms. It becomes difficult for the viewer to differentiate true memory fragments of from imaginary ones, just as it is for Ari himself (Yoshida, 2014). In the following section, an extensive theoretical framework is laid out to grasp the very real but inaccessible tension Ari experiences.

3 Theoretical Framework: norms & delinquency

Shalom H. Schwartz (1968) describes an individual's decision-making process in a situation which objectively requires him to act rather than not act. Schwartz proposes the 'Norm Activation Model', which suggests that behaviour depends on how an individual defines his "moral choice situation" (p. 355). If he perceives it as relating to moral norms, then these are activated and influence behaviour by engaging in the setting. However, if the individual perceives the situation as not requiring moral evaluation then he will not act. In the latter case, the event's nature falls into any of these three categories: the event does not require ethical assessment, the event requires it but the witness misinterprets the situation as not requiring assessment, and the event requires it but the witness intentionally denies that this is the case.

In the event of a crisis, the last two categories come into play. For example, if there is a situation in which a person finds another person drowning in a lake, it is clear that this is a moral choice situation which requires the witness to help the victim. The witness can either misinterpret this event, believing that the victim knows how to swim and will not drown, or the witness can intentionally ignore the event. In the latter category, he realizes the victim is drowning and could die if not rescued, yet he chooses to walk away. Schwartz (1968) claims that such an analysis of the nature of a "moral choice situation" (p. 355) depends on two conditions: (1) the witness must be aware that his actions will have consequences for the welfare or others, and (2) the witness must assign himself a degree of responsibility for his actions.

This article focuses on the third category, intentional ignorance, in which the above two conditions are not met. This occurs because of the nature of existing societal ethics. Activation of moral norms arise from cultural specifications which socialize the witness. What his society considers good or bad is what he understands as good or bad. In Schwartz's well-functioning community, it would make no sense why the witness would refuse to help a drowning victim. The witness's healthy and empathetic environment encourages helping others in need, and should therefore make him dive into the water to rescue another. So then why does the witness not jump?

Skyes and Matza (1957), in their works on criminology, discuss the concept of "Delinquent Sub-culture" (p. 664). Here, rules of the broader societal normative system are reversed by a sub-group who create a unique "norm-holding" (p. 665). If the sub-culture perceives the act of not rescuing a drowning victim as good then this moral norm is activated causing the witness not to help. When, according to his proximate surroundings, he acts in a way that realistically falls outside

any objective larger societal moral discourse, the link between his personal existence and that of his exclusive social environment becomes very clear and definite – he subsumes himself entirely within it. He lets go of the true ethical consequences of his actions and removes any degree of responsibility he possesses to help the drowning victim (Schwartz, 1968; Sykes & Matza, 1957).

This subsuming allows the witness to intentionally ignore or deny the crisis by defining it as something external to him which transforms him into a collaborator-bystander. Consequently, in Schwartz's (1968) well-functioning society, objective moral norms are not activated causing the witness not to act in a situation that required him to do otherwise. Thus, emotions that these norms elicit – guilt, shame, fear, anxiety – fail to generate. However, in their place, opposing emotions of pride, joy, and content are prompted for a bystander, as not rescuing the drowning victim was morally good within his sub-culture. Therefore, by combining the Sykes and Matza's (1957) Delinquent Sub-culture theory with Schwartz's (1968) Norm-Activation Model, the article develops the latter further to incorporate bystander behaviour in atrocities. Through this, it is found that Ari activated his army's subjective norms, which morally allowed victims to be killed during the 1982 Sabra and Shatila Massacre. However, interestingly it is found that the above theories' combination only applies to Ari temporarily. This means that his objective moral norms – the ethical appal of knowing innocent people are getting killed – were *unconsciously* activated, which label the event as traumatic. This is visible through his uneasy mental state and behaviour throughout Waltz with Bashir that urge him to dig into his past and confront himself with the reality of events.

4   Ari's normative system

4.1   IDF subculture in the 1982-85 Lebanon War

In order to understand the Ari's past, it is crucial to identify the character of his sub-culture during the Lebanon War of 1980s. Kelman (1973) claims sanctioned massacres often take place in an environment that is devoid of moral evaluation or justification for the violence being perpetrated. They occur in larger socio-political contexts of war, be it civil or international, revolutionary struggle or an ethnic conflict. The US violence in Vietnam, Nazi atrocities in Germany, and the Pakistani killings in Bangladesh are all historical examples of massacres. The common situational variable among these is not only their war-based cultivation but also that war breeds a genocidal policy (Smeulers & Grunfeld, 2011). To destroy a set of people defined as ethnic, religious, racial and so forth is the purpose. This genocidal norm makes clear to a group of people that the civilian pop-

ulation is "expendable" and their arbitrary killing is "central to the strategy of the war" (Kelman, 1973, p. 32). This way, killing a man, woman, child or an elderly person becomes permissible.

In Waltz with Bashir, Ari is situated in the social and historical context of the 1982 Lebanon War. As a soldier, he is deeply entrenched in a normative of violence in contrast to an ordinary Israeli citizen. The selective set-up of the IDF is then defined as a delinquent sub-culture (Sykes & Matza, 1957). One of Ari's friends, Roni Dayag, describes the time they first crossed the Rosh Hanikra border to reach Lebanon – it "felt like an excursion... we took photos, we told jokes […] we had time to fool around before going into action" (Folman, 2008, 26:53-27:06). The viewer is able to indulge in this memory reconstruction, beginning with a song called 'Good Morning Lebanon', and appreciating Lebanon's beauty. The atmosphere slowly turns aggressive as the soldiers enter Beirut in a tank where everything is in ruins. Another song, "I Bombed Beirut Today" plays and in an instant, the bloodbath begins. The scenes show the everyday routine of IDF soldiers – jumping in helicopters, a car driving by shooting at them while they're having lunch, bombing a car from an aircraft as it escapes, leaving them destroyed. Within such a violence-oriented environment, reinforced by the physical infrastructure of a grey and lifeless town, it became normal and acceptable to participate in acts of brutality (see Fig. 2). Roni describes: "Our daily routine was this: get up in the morning, prepare for breakfast on those frying pans... potted beef and eggs. Take a swim, get back into uniform then go after some terrorists" (Folman, 2008, 41:16-41:36).

Figure 2   Bombed Beirut Today (Folman, 2008, 37:47)

Therefore, the grander normative system of society perceiving violence and killing as something negative does not apply to IDF's sub-culture. It becomes clear that the moral norms of society are flexible, in that they are not "a body of rules held to be binding under all conditions" (Sykes and Matza's, 1957, p. 666). So, Ari was swallowed in the war-centric milieu of the 1982 Lebanon War allowing him to intentionally deny and then ignore the atrocities taking place at the time, specifically during the Sabra and Shatila Massacre (Latane & Darley, 1969).

4.2 Ari's moral norm activation & trauma

By merging Sykes and Matza's (1957) Delinquent Sub-culture theory with Schwartz's (1986) Norm Activation Model, it becomes possible to understand how Ari acted as a bystander during the massacre. Ari substituted the societal moral norms of helping others in need with his specific environment's morals on violence as something acceptable and good. Thus, he was not fully aware of the consequences of his in-action on the welfare of the Palestinian and Lebanese victims, nor did he feel responsible for their deaths. This resulted in his sense of ignorance of his moral responsibility towards the entire massacre (Latane & Darley, 1969). Ari did not feel instant shame or guilt for not rescuing the innocent civilians. Rather, he must have felt joy or pride in doing something that was expected of him from his sub-culture.

However, Folman wishes to communicate a different story to the audience through Waltz with Bashir. The film centres around Ari's buried psychological experiences of the massacre. It shows that he is subject to "hard-to-understand scrambled memories" derived "from multi-layered collections of unconscious remnants" (Yoshida, 2014, p. 82). Beginning with the first flashback he has of coming out of the sea in Beirut, he is unsure whether that is a night from the Sabra and Shatila Massacre. He has a hunch and wants to investigate further but at the same time he is afraid of finding out the reason *why* his mind has completely blocked out that phase of his life.

As Ari examines this period it becomes clear that by acting as a bystander to the massacre the event was very traumatic for him. If it was not, he might have had an accurate memory of it and his unconscious mind would not feel the need to suppress his experiences. Dori Laub (1992) points out that a traumatic experience often fails to be properly processed at the moment of its occurrence. The "uncanny structure" of a trauma has "no beginning, no end, no beginning, no during, and no after" (Yoshida, 2014, p. 83) because it falls outside the boundaries of normal reality. Ari did not authentically identify himself with his IDF sub-culture during the Lebanese War, as Sykes and Matza (1957) would claim. Rather, he identified with it on a superficial level. This means that instead of

replacing the larger society's objective moral norms with activating his sub-culture's subjective morals, the former were activated but momentarily repressed by his unconscious. Therefore, temporarily, Ari believed that not intervening to help the refugees against the Phalangist militias was the right thing to do. This happened because at the time of the event, it was too soon to comprehend its full meaning – that *innocent civilians are being slaughtered while I, Ari, am doing nothing to stop this*. However, on a deeper level he was partially acting within the normative system of society which condones violence and encourages empathy (Yosef, 2010). This caused the process of realizing the event's true meaning and implications as a deferred action to his consciousness (Stohl, 1987). So, the massacre's tremor took a longer time to be realized by Ari through a process of probing at his "disremembered memories" (Yosef, 2010, p. 318) which enabled him to deal with events that were too terrifying and difficult to experience in the first place.

5   Identification with the perpetrator

Over the course of the film, Ari realizes that he did not take an active part in the slaughter, yet the film poses the question of the entirety of his ethical role in the event. Even as an inactive bystander, Ari sees himself liable. When he visits his psychologist friend, Ori Sivan, in search of help to solve the problem of his lost memory, Ori explains that the memory has been suppressed because Ari identifies himself with the Phalangist perpetrators (Folman, 2008; Yosef, 2010). The temporary repression of the activated objective moral norms helped him bury the guilt he felt in not rescuing the victims. In reality, he levelled himself to the same status of those who physically perpetrated the killings. So, the trauma's deferred implication revealed his sense of awareness to the welfare of the victims and the responsibility of actions towards them. By uncovering this, Ari was no longer able to ignore the massacre intentionally or unintentionally (Schwartz, 1968).

His situation is comparable to that of some of the friends he meets. Boaz, with whom this entire journey began, is also haunted by the twenty-six dogs who want to kill him. However, unlike Ari he already knows the root of this. In an incident when the IDF was searching a Lebanese village for Palestinians, he was ordered to kill all the dogs because their barking would alarm the "fugitives" helping them flee. Boaz describes: "They told me, "go ahead and shoot the dogs!" Twenty-six dogs, I remember every single one every face, every wound, the look in their eyes. Twenty-six dogs" (See Fig. 3) (Folman, 2008).

Figure 3   Twenty-six dogs chasing Boaz (Folman, 2008, 02:12)

The dogs haunt him to not only avenge their murder but to also demand ethical responsibility for the terror he enforced upon them. So, the similarity between Boaz and Ari is that they attempt to "emerge from their blindness and accept the moral responsibility in reality" (Yosef, 2014, p. 321). They do so by waking up from their dreams, hallucinations and memories and become accountable to the immoral actions they committed in the past.

6   Conclusion: The many faces of a bystander

The film successfully identifies the intertwined relationship between a perpetrator, a bystander, and a victim. The relationship is not highlighted in a classic way of how each actor influences the other, but rather emphasizes how an individual can act as a perpetrator and at the same time play the role of a bystander whilst feeling victimized himself. Ari showcases these complex dynamics well in Folman's (2008) film, Waltz with Bashir. By using Schwartz's (1968) Norm Activation Model it becomes possible to see that grander societal normative systems exist, influencing a bystander's actions. Simultaneously, Sykes and Matza's (1957) theory on Delinquent Sub-culture portrays that a secondary normative system exists which also plays an equally important role in a witness's decision-making process to either remain a tacit bystander or intervene and rescue the victims.

By combining the two theories, the expected finding was that Ari would not activate society's objective moral norms by substituting them with his IDF sub-culture's subjective norms. This would result in his failure to be aware of his actions' consequences for the welfare of others *and* in his failure to take responsibility for his action (or in-action). However, this article's purpose was to show that in fact the above theoretical framework was insufficient in understanding why Ari experienced moral uneasiness years after the 1982 Sabra and Shatila Massacre. Rather, this uneasiness was better comprehended by an endless tension that existed between his conscious and subconscious experiences of the incident. This way, the article found that Ari did in fact activate objective moral norms, but that he did so unconsciously; in fact, he repressed them. So, by failing consciously activate these – which would ideally lead to a sensation of guilt –, guilt was in fact not experienced as a mechanism to cope with the event's trauma at the time. As a temporary substitution, he adopted the IDF sub-culture's subjective morals which allowed him to perceive violence and killing as something normal and good. This allowed him to intentionally ignore the incident. However, the suppressed objective morals that discourage such actions and instead encourage empathic behaviour were realized as a deferred action years later in the form of fragmented memories and hallucinations. Thus, he is in fact aware of his actions' consequences and his responsibility towards others, helping him label his role in the atrocity – that of a collaborative perpetrator than an innocent bystander.

Folman's animation style is able to capture this ambiguous temporal nature of Ari's traumatic past; one that cannot be truly accessed any longer, yet is indelible. The film helps portray the ethical responsibility a bystander possesses. As Yosef (2010) points out, "The ethical responsibility that he (Ari) wishes to examine is that of the very repression of memory: what is the meaning of not wanting to remember? What is the meaning of not wanting to see? What is the meaning of not seeing in time?" (p. 320). In conclusion, the micro-level social-psychological dynamics of how a bystander perceives themselves is crucial to the understanding of his role in an atrocity. He is not at the level of a perpetrator unless he puts himself there, but at the same time he victimizes himself by understanding the crime as a trauma.

References

Adams, B. (2016). 'Waltz with Bashir': The fallibility yet persistence of memory. Retrieved from http://www.documentary.org/feature/waltz-bashir-fallibility-yet-persistence-memory

Anziska, S. (2012, September 16). A preventable massacre. *The New York Times*. Retrieved from http://www.nytimes.com/2012/09/17/opinion/a-preventable-massacre.html

Darwin, C. (1871). The descent of man, and selection in relation to sex. New York: D. Appleton & Co.

Ekman, P. (2010). Darwin's compassionate view on human nature. *JAMA, 303*(6), 557-558. Retrieved from https://www.paulekman.com/wp-content/uploads/2013/07/Darwins-Compassionate-View-Of-Human-Nature-2010.pdf

Folman, Ari. (Producer & Director). (2008). Waltz with Bashir. [Documentary animated film]. Israel: Bridgit Folman Film Gang, Les Films d'lci, & Razor Film Produktion.

Institute for Middle East Understanding (IMEU). (2012, September 17). The Sabra & Shatila massacre. Retrieved from http://imeu.org/article/the-sabra-shatila-massacre

Kelman, H. (1973). Violence without moral restraint: Reflections on the dehumanization of victims and victimizers. *Journal of Social Issues, 29*(4), 25-61. doi:10.1111/j.1540-4560.1973.tb00102.x

Latane, B., & Darley, J.M. (1969). Bystander "Apathy". *American Scientist, 57*(2), 244-268. Retrieved from http://www.jstor.org/stable/27828530

Laub, D. (1992). 'Bearing Witness or the Vicissitudes of Listening', In S. Felmand & D. Laub (Eds.), *Testimony: Crises of witnessing in literature, psychoanalysis, and history* (pp. 57-62). New York and London: Routledge.

Lormand, R. (2008, May). Waltz with Bashir: An Ari Folman film. [Professional interview]. *Festival De Cannes*. Retrieved from http://www.the-match-factory.com/films/items/waltz-with-bashir.html?file=assets/downloads-public/films/w/waltz-with-bashir/waltz-with-bashir-pressbook.pdf

Malone, L.A. (1985). The Kahan Report, Ariel Sharon and the Sabra-Shatilla massacres in Lebanon: Responsibility under international law for massacres of civilian populations. *Faculty Publications: William & Mary Law School, 587*, 373-433. Retrieved from http://scholarship.law.wm.edu/facpubs/587/

Schwartz, S.H. (1968). Awareness of consequences and the influence of moral norms on interpersonal behavior. *Sociometry, 31*(4), 355-369. doi:10.2307/2786399

Smeulers, A., & Grunfeld, F. (2011). *International crimes and other gross human rights violations*. Leiden & Boston: Martinus Nijhoff Publishers.

Stohl, M. (1987). Outside of a small circle of friends: States, genocide, mass killing and the role of bystanders. *Journal of Peace Research, 24*(2), 151-166. doi: 10.1177/002234338702400205

Sykes, G. M., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociologist Review, 22*(6), 664-670. Retrieved from http://www.jstor.org/stable/2089195

Waltz with Bashir. (n.d.). Waltz with Bashir An Ari Folman Film. Retrieved from http://waltzwithbashir.com/home.html

Yosef, R. (2010). War fantasies: Memory, trauma and ethics in Ari Folman's Waltz with Bashir. *Journal of Modern Jewish Studies, 9*(33), 311-326. doi:10.1080/14725886.2010.518444

Yoshida, Y. (2014). The return to unreachable spaces in Ari Folman's Waltz with Bashir. *Image [&] Narrative, 15*(3), 81-92. Retrieved from www.imageandnarrative.be/index.php/imagenarrative/article/download/628/457

List of Illustrations

AACHEN'S POLICIES ON AIR POLLUTION

A law and economics analysis

Mareike Moraal

Abstract   This article compares the merits of two opposing air pollution policies in Aachen through a law and economics approach. Based on Cole's (1999) property rights regimes, the current Aachener Approach and the soon to replace it Low Emission Zone (LEZ) are characterized as incentive-based and command-and-control regulation respectively. They are evaluated here on their efficiency and effectiveness using local government reports and legislation, and theoretical law and economics literature. This cost-benefit analysis shows the LEZ to be less efficient and of questionable effectivity in achieving reduction of air pollution levels compared to the current Aachener Approach.

1. Introduction

From February 1st 2016 onwards, the city of Aachen had no other option but to follow in the footsteps of numerous other German cities in establishing a Low Emission Zone (LEZ) (District Government Köln, 2015b). The controversial policy, which prohibits vehicles without an environmental badge from entering the city centre, was a response by the government of the district Köln, to which Aachen belongs, to air pollution levels exceeding the European air qual-

ity standards (Feldhaus & Scheffer, 2015). The policy's controversiality was caused by severe opposition from the municipality of Aachen itself (Eimer, 2015; Green Party, 2015). In 2009, the year the District Government Köln first put forward the possibility of instating a LEZ in Aachen, the city implemented its own clean air plan, which had been devised by a collaboration of local agents (District Government Köln, 2009). Aachen's commission on air quality deemed their locally devised clean air plan, also termed the Aachener Approach, superior to establishing a LEZ in improving air quality while maintaining the city's accessibility (District Government Köln, 2009). Up until the LEZ's establishment in 2016, the municipality argued it wished to keep this approach despite the city's continued exceedance of prescribed NO_2 levels (Eimer, 2015). And not unfoundedly so: the past years had brought a steady decrease in air pollution levels (District Government Köln, 2015a; Eimer, 2015).

The heated debate between advocates and opponents of the LEZ did little to objectively assess the advantages and disadvantages of the Aachener Approach and the LEZ, much less compare them. As Dales (1968) noted, "pollution control is intimately tied up with political processes" (p. 17). Therefore, this paper seeks to consider independent of political goals whether the establishment of a LEZ in Aachen was a rational policy decision at the time.[1] A meaningful assessment of the rationality of any environmental policy must take into account the law-making process, its economic implications, and its environmental effectivity (Dales, 1968). As such, a method especially suited for providing a framework for analysis is law and economics, which evaluates laws based on their efficiency and effectivity.[2] This paper analyses the different policies available to the regulating authorities in Köln at the time, guided by the research question "how did the Low Emission Zone proposal in Aachen compare to the Aachener Approach from

---

[1] This paper thus is primarily concerned with the rationality of the decision-making procedure that led to the implementation of the LEZ. It will take all information available to the regulating authorities in Köln at the time of establishment of the LEZ into account to assess whether the LEZ indeed was the most efficient and effective policy available.

[2] A reader acquainted with Calabresi and Melamed's approach to law and economics might wonder about the choice for the assessment criteria cost-efficiency and effectivity, or rather about the omission of distributive justice (see Calabresi & Melamed, 1972) This is due to the particular nature of this pollution problem, a "general equilibrium situation" in which the many individual polluters at the same time are pollutees. They bring about the costs of pollution and consequently bear them. As Dale noted, "in the end, the costs will be spread around, and the general population will pay for pollution control (…) the important question is not *who* lays out the money in the first place, but *how much* is paid to achieve what benefits" (Dale, 1968, pp. 83, 86, emphasis in original). As opposed to the pollution problems in Calabresi and Melamed, therefore, the setting of the entitlement does not significantly change the distribution of wealth.

a law and economics perspective?" First, a situation sketch of Aachen's pollution levels and the two available mitigation policies at the time of decision-making is given. These mitigation policies are then characterized, assessed and compared using Cole's (1999) property rights regimes. The analysis serves to support the hypothesis that a property rights-based cost-benefit analysis shows the Low Emission Zone proposal in Aachen to be inferior to the Aachener Approach in achieving both cost-efficiency and effectivity.

2.   A Situation Sketch

Following the European Air Quality Directive of 2008, cities whose nitrogen dioxide (NO_2) and particulate matter (PM_{10}) levels exceeded the set standards were compelled to take action by 2015 in order to avoid high fines (European Parliament and Council, 2008).[3] Amendments and a new article in the Federal Immission Control Act incorporated the directive into German law (District Government Köln, 2015a). The competence and responsibility to devise air quality improvement plans were given to the district governments, in close consultation with all authorities and institutions that might be affected.[4] Therefore, the municipality of Aachen was anything but free to unilaterally decide on an approach. Nevertheless, policymaking on environmental measures was characterized by a high degree of local autonomy in the first years after the directive's implementation, resulting in the Aachener Approach in 2009.

The Aachener Approach, devised by a collaboration of businesses, environmental and traffic associations, the local bus company ASEAG, and the universities, consisted of a range of interlocking projects to promote more sustainable modes of transportation (District Government Köln, 2009). Next to addressing air pollution, the approach aimed to maintain the city's accessibility as a centre for business, science and tourism. Aachen's commission on air quality stressed the importance of conviction and voluntary self-commitment, not-

---

[3] See European Parliament and Council Directive 2008/50/EC on ambient air quality and cleaner air for Europe [2008] OJ L152. Interestingly enough, however, it is unlikely that the city of Aachen would have had to bear this fine, as it is deemed to have done all in its power to combat pollution. If the fine would have come about, it would most likely have fallen to the Bund or the Länder (City Council Aachen, 2014, p. 7). Both the municipality and the district government therefore exempted the costs of fines in their cost-benefit analysis, although advocates of the LEZ like to refer to the ominous prospect of paying five-digit fines –a day (Eimer, 2014a).

[4] § 1 Abs. 1 i. V. m. Nr. 10.6 des Anhangs 2 der Zuständigkeitsverordnung Umweltschutz – ZustVU; § 47 Abs. 4 S. 2 BImSchG

ing that only a consensus supported by a plurality of groups and encompassing a plurality of activities could bring about enduring changes and success for air pollution control (District Government Köln, 2009). This rationale of incentivizing rather than sanctioning led to a programme in which more sustainable transportation was encouraged and subsidized. Examples are cheap tickets for commuting using public transport, the loan of electric bikes on a large scale through the ambitious project Velocity, and a significant improvement of the bike infrastructure (District Government Köln, 2009; Eimer, 2014a). Moreover, substantial sums were invested in making public transport more eco-friendly. This especially concerns the highly pollutive ASEAG bus fleet, which was slowly being replaced by buses sporting significantly lower pollution levels (District Government Köln, 2009; Green Party, 2015).

Up until implementation of the LEZ, the city defended its wish to keep the Aachener Approach despite continued exceedance of NO_2 levels by referring to the successes it had already achieved: a steady improvement of air pollution levels (District Government Köln, 2015a; Eimer, 2015). As Aachen's mayor Marcel Philipp put it, the Aachener Approach has proven to be successful. The Low Emission Zone has no part in it, as Aachen does not wish to be a city sealed off from the outside (Eimer, 2015). This concern is made all the more pressing by Aachen's location in a border region, with many visitors, thus money, coming in from Belgium and the Netherlands. The municipality did recognize that more rigorous measures were necessary to accelerate the decrease in NO_2 levels, and in collaboration with the commission on air quality had devised an expansion on the existing policy. It entailed more comprehensive and expensive programs, but still under the rationale of incentivizing rather than sanctioning (City Council Aachen, 2014).

The district government, however, deemed the establishment of a LEZ the only possibility to bring about a lasting reduction of limit exceedances, and thus protect the citizens' health (District Government Köln, 2015b). It argued that under no circumstances the Aachener Approach would be able to attain compliance with the EU's NO_2 limit (District Government Köln, 2015a). Their preferred policy, the LEZ, entailed categorizing vehicles based on their pollution levels. Only those vehicles that complied with certain European pollution standards (Euro 4) would be eligible for the green environmental badge required to enter the city centre. Motorists driving a vehicle without a badge would risk high fines (District Government Köln, 2015a). As most modern passenger cars – about 90% – complied with these standards, the LEZ's influence seemed limited (Feldhaus & Scheffer, 2015). However, three groups were expected to form an exception to this. First, the owners of vehicles that under the LEZ would be

prohibited from entering the city centre, a group which mostly consists of owners of small businesses (Feldhaus & Scheffer, 2015). Secondly, visitors from Belgium and the Netherlands would face higher transaction costs in acquiring an environmental badge, although these would not be insurmountable (Schack, 2015). Thirdly and most importantly, local bus company ASEAG would have to take far-reaching measures to be able to continue operating in Aachen. When on the 21st of August the District Government Köln decided to implement the LEZ half a year from then, the ASEAG's fleet still utilized more than a hundred buses that would not be allowed into the city anymore due to their emission rates. In order to be eligible for a green badge, these buses would have to be equipped with particle filters that lower PM_{10} emissions, at about €10.000,- per filter (Feldhaus & Scheffer, 2015).

3   Analysis

3.1   Property rights in environmental goods

Now that the basic content of both approaches has been established, their merit can be assessed using Cole's analysis of property rights regimes. Cole's (1999) law and economics approach argues that pollution results from inadequately specified property rights of environmental goods This problem, also defined as the tragedy of the commons, can be addressed by assigning specific property rights to the state or individuals (Hardin, 1968). This can be done in many ways, of which two are especially relevant for the purposes of this paper: regulations in the form of command-and-control, and in the form of market-based incentives. The former involves making a good state property, res publica, with officials determining the conditions for its use and exclusion. The latter comprises governments vesting a limited form of private property rights, res privata, in individuals to incentivize control of emissions (Cole, 1999; Stavin, 1997).

At the outset, the right to use air as one pleases was characterized by a 'res nullius', an open access right, in Aachen as much as anywhere else (Cole, 1999, p. 276).[5] And with disastrous consequences, for as long as the individual benefits of polluting the commons are greater than the individual's share of the ensuing

---

[5]   Dales disputed the theoretical existence of goods without any property rights, arguing that such goods inevitably are "vested in the right of some government", thus common property (Dales, 1968, p. 62). However, he did concede that state ownership on a no-rule base, "unrestricted common property", practically amounts to there being no effective ownership (Dale, 1968, p. 63). Therefore, the initial situation will further be referred to as being characterized by a res nullius.

common costs, we are, as Hardin (1968) puts it, "locked into a system of fouling our own nest" (p. 1245). As both pollution and awareness of its negative consequences grew, governments started defining property rights of environmental goods (Harrington & Morgenstern, 2004). Most often, they did so in the form of command-and-control regulation, thus by asserting the state's property rights to "[impose] on polluters a legally enforceable duty to comply with all restrictions on use of the public's atmosphere" (Cole, 1999, p. 282).

3.2   The Aachener Approach

Aachen, however, formed an exception to this pattern of command-and-control regulation by issuing the Aachener Approach: a market-based form of regulation. As indicated under the situation sketch, this policy relies on incentivizing motorists to reduce pollution rather than relying on traffic-related sanctions (District Government Köln, 2009). One could thus say that it gives individuals as well as companies a limited private property right to "use" the air. The property right holders can then decide whether to use this right to pollute by driving in the inner city, or "sell" (part of) their right to the municipality of Aachen by opting for one (or any combination) of several subsidized alternatives.[6] This strategy coincides with Hardin's (1968) advice to policymakers not to offer "prohibition, but carefully biased options" (p. 1247).

   This specific form of market-based regulation contains aspects of both pollution charges and subsidization.[7] Due to the quantity of polluters, an emission rights market, which is deemed the most efficient and effective policy, is impossible (Dales, 1968). The Aachener Approach remedies this by establishing a similar possibility: a "market" in which individuals can trade the use of their rights for subsidized alternatives with the municipality. Individuals cannot trade their rights with others, but remain in control of the extent to which they pollute, and which subsidies they wish to apply to their individual case (Dales, 1968).

3.2.1   Efficiency

By making it increasingly expensive (through forgoing cheaper options) to display the less-preferred behaviour of polluting, its temperance can be achieved in an efficient way (Cole, 1999; Dales, 1968). Every motorist can decide for themselves

---

[6] Note, however, that they cannot transfer this right to anyone but the state. There is no full-fledged emission market, making the property rights limited.

[7] Dales distinguished three ideal types of solutions for the tragedy of the commons: technology-based regulation, subsidization, and pollution charges (Dales, 1968), Pollution charges encompass the polluter pays principle, whereas subsidization gives the polluters a right to pollute that is transferable to the government.

to what extent they should reduce the use of their right to pollute in order to minimize their costs, rather than having the commission on air quality or municipality establish and subsequently monitor how much every individual may pollute. As every polluter minimizes their costs, total costs of tempering pollution are minimized (Dales, 1968). Moreover, transaction costs are low, as there was no coercion, little monitoring, and little negotiation involved (Dales, 1968).[8]

3.2.2   Effectivity

However, the district government of Köln did not criticize the Aachener Approach for its level of efficiency, but rather for its lack of effectivity. As the LEZ's effectivity is up for discussion as well, one might object that this constitutes "thoughtlessly [governing with] a double standard", in which measures are dismissed as soon as "its opponents triumphantly discover a flaw in it" (Hardin, 1968, p. 1247). However, this does not invalidate the district government's criticism. Indeed, the prognoses issued by the district government showed that the outlook for attaining the EU's pollution levels limit in the near future at the current rate were bleak, and the municipality acknowledged the same (city council Aachen, 2014; District Government Köln, 2015c). While the district government mainly justified the implementation of the LEZ on this basis, it is in fact very unlikely that the LEZ will be able to bring about the required reduction in a short timeframe, either: prognoses in 2015 showed an attainment date in 2025 (District Government Köln, 2015a). The standard for effectivity must therefore be readjusted. The question remains as to how: the municipality advocated a long-term goal of reducing air pollution while remaining accessible, whereas the district government advocated the conception of effectivity solely as bringing about reduction of pollution levels as quickly as possible (District Government Köln, 2009, 2015c; Eimer, 2014a). When assessing effectivity on the basis of the former conception, the Aachener Approach seems superior, whereas on the basis of the latter this cannot be said as unequivocally (Eimer, 2015).

3.2.3   A distinct case: ASEAG

In short, the incentive-based regulatory approach seems efficient and can be argued to be effective. This is true for individuals at least, as it is hard to see how subsidizing and encouraging the use of buses and bikes would make the ASEAG lower their bus fleet's pollution. Yet, to attain the EU's pollution levels threshold,

---

8   This is not, of course, to say that the Aachener Approach was cheap. The incentives offered did cost money. However, there were little dead-weight costs –costs that constitute no investments but are solely made to enable some other transaction.

especially for the critical NO_2 levels, this is crucial: in 2015, at the time of decision-making, the public bus fleet was responsible for 43% of NO_2 emissions from traffic (District Government Köln, 2015a). The municipality therefore followed a different strategy to address this source of pollution. It subsidized upgrading of pollutive buses, supported the acquisition of electric and hybrid buses, and exerted political pressure (City Council Aachen, 2014). This policy can be seen as a blend of market-based an control-and-command regulations: although the ASEAG was not strictly being coerced to fulfil a certain pollution standard, the options the municipality gave it were very much biased towards investing in a more sustainable bus fleet. The property rights on the use of air therefore strictly remained with the ASEAG, but in fact the conditions of use were partly determined by the municipality. Therefore, the property right shows a striking resemblance to a usufruct: The ASEAG was allowed to use the air and to enjoy any profits that stem from it, but abuse was practically prohibited (Cole, 1999). This approach was advocated to be cost-efficient – although ASEAG's freedom to pursue the degree of pollution reduction that yields most utility was limited, it was free to choose those measures that reduced pollution most efficiently (Breuer, 2015). In practice, this seemed to be working well with steady reductions in NO_2 levels as well as the less critical PM_{10} levels since the elimination of the res nullius in 2009 (District Government Köln, 2015a).

3.3   The Low Emission Zone

The LEZ on the other hand is based on across-the-board control-and-command regulation.[9] The property right to the air remains vested in the government, which determines the conditions for its use (Cole, 1999). In the case of the LEZ, motorists driving vehicles too pollutive are excluded, although they can buy their way out of this position through the purchase of an environmentally friendly car. This approach, too, does not perfectly fit the ideal type of regulation as put forward by Dales (1968): although the conditions for polluting are specified, the extent to which motorists can make use of it remain undefined. In contrast to the Aachener Approach, the regulation is the same for all individuals and companies. This homogeneity of treatment is argued to be its major strength by advocates (in effectivity) as well as its major weakness (in efficiency) by opponents (District Government Köln, 2015a; Feldhaus & Scheffer, 2015).

---

[9]   The distinction between across-the-board, thus uniform application, and point-by-point, meaning regulation adjusted to individual polluters, originates from Dales, 1968, p. 84.

3.3.1   Efficiency

Although various opponents of the LEZ disputed its effectivity as well, the main concerns raised related to the high costs following from implementation (Eimer, 2015; Laberer & Niedermeier, 2009). The closing remarks of a local news report on the impending implementation of a LEZ in Aachen are telling: The LEZ will cost a large amount of money for a measure that will not significantly improve Aachen's air quality (Furhrmann, 2015). These costs were expected to mainly arise in three groups, first in the group of small business owners situated in the inner city. Their larger company vehicles often do not comply with the criteria for a green badge, meaning that their vehicles would have to be upgraded. Only under very specific conditions, including a statement from a tax consultant that the business would face closure if it cannot continue using its prohibited vehicle, are exceptions made (Mayor and Executive Board Aachen, 2015). It was feared that small business owners would therefore encounter financial difficulties (Furhmann, 2015). This criticism on the LEZ is derived from the argument that command-and-control regulations tend to be "economically inefficient – that is, excessively costly – because they ignore market signals about which firms can reduce emissions most cheaply" (Stavin & Whitehead, 1992, p. 15).

Secondly, costs in the form of foregone revenue could arise from the increase in transaction costs for visitors from Belgium and the Netherlands. It was feared that they would be deterred by the trouble and cost of having to acquire an environmental badge (Furhmann, 2015). This concern is understandable considering the substantial revenue made at the hands of visitors from nearby towns across the border (Piana, 2015). Opponents therefore warned that the LEZ had the potential of becoming a new border hurdle (Eimer, 2015). As this concern does not apply to most other, non-border region cities that have implemented a LEZ, these costs have not been considered in any cost-benefit analysis by the district government, which might prove a significant flaw in the process of making well-informed decisions (Piana, 2015).

The most upheaval, however, was caused by the investments the ASEAG would have to make up until December 31st 2017, when the ASEAG's exemption from the LEZ ends, in order for all buses to continue to be allowed into the city centre (District Government Köln, 2015a). Under the Aachener Approach, the ASEAG de facto was required to make its bus fleet more sustainable as well (City Council Aachen, 2014). However, given the shortened timeframe left by the LEZ, the ASEAG now would have to resort to measures that provide less pollution reduction for the same amount of investment, notably particle filters. The investments as planned under the Aachener Approach still have to be made in the long run, however, leading to overall higher costs (Breuer, 2015). As such,

the ASEAG-case illustrates Cole's (1999) argument that command-and-control approaches fail to "[take] into account the different cost structures individual firms have for pollution control" (p. 283).

3.3.2 Effectivity

Nevertheless, the LEZ should not be dismissed solely because of its inferiority to the Aachener Approach in terms of efficiency. As Cole (1999) argues, the primary purpose of market-based approaches to reducing pollution is "not to reduce emissions but to minimize the costs of reducing emissions" (p. 283). The LEZ's primary purpose is to reduce emissions, and it can therefore be expected to be superior in terms of effectivity. If the district government decided rationally on what constitutes the best approach, the gain in pollution reduction must be enough to compensate for the lack of efficiency.

It was, however, anything but clear whether the LEZ in fact would add much to the reduction of the critical levels of air pollution at all. This concern mainly was expressed concerning the public bus fleet. As mentioned above, ASEAG would have to invest considerable amounts in equipping buses that are not eligible for a green badge with particle filters. Although these particle filters do reduce PM_{10} levels, they lead to an increase in NO_2 emissions – precisely the pollutant that Aachen's air quality suffered most from, and which was projected to be the most difficult to reduce to the levels prescribed by the EU (Breuer, 2015; District Government Köln, 2015a). The money needed for this operation could not be spent elsewhere, notably on the originally planned acquisition of much more environmentally friendly buses (Feldhaus & Scheffer, 2015). As a spokesperson of Aachen's Green Party argued, the city needs new buses, not a Low Emission Zone (Breuer, 2015).

Despite assurances by the district government that environmental associations agreed on the utility of a LEZ, said organizations were in fact doubtful about its merit. Excluding the LEZ's consequences for the upgrading of the bus fleet, they have conceded that a LEZ could marginally contribute to reducing pollution, but were quick to warn that much more needs to be done. And precisely that, it was feared, would be discouraged by the establishment of a LEZ. As Aachen's Green Party put it, there is fear that the establishment of the LEZ will cause further inaction, leading to measures that are actually effective not being taken (Green Party, 2015). In other words, authorities might be tempted to lean back and consider their duty to be fulfilled once the LEZ is established. In that sense, the LEZ was more effective in improving air quality when it was only an impending plan: it then worked as a stimulus for the development of other ambitious plans to render the establishment of a LEZ unnecessary (Eimer, 2014a).

4 Conclusion

In a property-rights based analysis, this paper has shown the incentive-based Aachener Approach to be the rational choice for Aachen: it is more cost-efficient than the command-and-control regulation LEZ in achieving reduction of pollution levels. Depending on the definition of effectivity, namely quick reduction of pollution levels or reduction while remaining accessible, the LEZ could respectively be said to be at best marginally more effective, but at worst counterproductive. As Stavins and Whitehead (1992) put it, "market forces can offer a more powerful, far-reaching, efficient, and democratic tool than centralized regulations for protecting the environment" (p. 15). In the light of these results, the district government's establishment of a LEZ rather than relying on its superior alternative seems most puzzling. Rather than being a satisfactory and conclusive answer to the research question, the findings raise the question why the district government's choice of policy is diametrically opposed to the law and economics analysis' preferred policy.

This discrepancy between the law and economics analysis's outcome and the district government's choice of policy points at shortcomings on both sides of the debate. First, it highlights uneconomic thinking on the part of the district government. With a policy preferred by its target group well in place, replacing it by a less efficient and effective alternative is ill-advised from an economic point of view. However, this does not take away from the fact that the LEZ, an unthinkable choice from a law and economics perspective, has been established. As such, secondly, it demonstrates a gap in the explanatory power of law and economics analysis. By only considering economic criteria for the desirability of a certain policy, it leaves no room for any non-economic considerations that change this assessment. Law is not only intricately intertwined with economics, but also with politics and society as a whole. A myriad of non-economic reasons might have driven the district government, such as seeking to assert authority over lower levels of government, wanting to appear to be a strong defender of the environment, or bureaucratic, incremental decision-making. The law and economics analysis thus shows which policy would be better from an economic perspective, not which one will actually be chosen. One may thus say that while the district government demonstrated little economic thinking in choosing the LEZ, a policy that was less efficient and effective than its alternative, the law and economics analysis implies too much economic thinking to be able to explain the district government's choice of policy.

References

Breuer, W. (2015, January 23). Umweltzone: Rußpartikel runter, Stickstoffdioxid rauf [Low Emission Zone: soot particles decrease, nitrogen dioxide increases]. *Aachener Nachrichten*. Retrieved from https://www.aachener-nachrichten.de/

City Council Aachen. (2014). *Umsetzung der europäischen Luftqualitätsrichtlinien in NRW Tagesordnungsantrag der SPD-Fraktion vom 08.04.2014: "Feinstaub und NO2 Belastung in Aachen" Sachstandsbericht zur aktuellen Situation im Umsetzungsverfahren des Luftreinhalteplans Aachen, Stand Mai 2014* [Implementation of the European air quality directives in NRW. Agenda item request by the SPD on 08.04.2014: "particulate matter and NO2 pollution in Aachen" Assessment report of the current situation in implementing the clean air plan Aachen, May 2014]. Retrieved from http://www.aachen.de/DE/stadt_buerger/umwelt/luft-stadtklima/luftrein-halteplan_umweltzone/pdf_materialien_fotos/umsetzung_luftreinhalteplan_2014.pdf

Cole, D. H. (1999). New forms of private property: Property rights in environmental goods. In B. Bouckaert & G. de Geest (Eds.), *Encyclopedia of Law and Economics Volume II: Civil Law and Economics*, pp. 274-301. Cheltenham: Edward Elgar Publishing Limited.

Dales, J. H. (1968). *Pollution, Property & Prices: An Essay in Policy-Making and Economics*. Toronto: University of Toronto Press.

District Government Köln. (2009). *Integrierter Luftreinhalte- und Aktionsplan der Bezirksregierung Köln: für das Stadtgebiet Aachen vom 01.01.2009* [Integrated Air Pollution Action Plan of the district government Cologne for the city of Aachen, dated 01.01.2009]. Retrieved from http://www.bezreg-koeln.nrw.de/brk_internet/leistungen/abteilung05/53/luftreinhalteplaene/luftrein-halteplan_aachen.pdf

District government Köln. (2015a). *Luftreinhalteplan für das Stadtgebiet Aachen: 1. Fortschreibung 2015 – Entwurf* [Clean air plan for Aachen. First update 2015]. Retrieved from http://www.aachen.de/de/stadt_buerger/umwelt/luft-stadtklima/luftreinhalteplan_umweltzone/pdf_materialien_fotos/LRP_Aachen_Entwurf_Fortschreibung_2015.pdf

District Government Köln. (2015b). *Grüne Umweltzone für Stadtgebiet Aachen*. Presseinformation 003/2015 [Green Low Emission Zone for Aachen. Press information 003/2015]. Retrieved from http://www.aachen.de/DE/stadt_buerger/umwelt/luft-stadtklima/luftreinhalteplan_umweltzone/pdf_materialien_fotos/pi_bzr_Koeln_20150120_uz_ac.pdf

District Government Köln. (2015c). *Beginn der Bürgerbeteiligung zum Luftreinhalteplan Aachen am 09. März 2015: Entwurf des Luftreinhalteplans Aachen enthält Umweltzone* [Start of citizen participation in the clean air plan Aachen on the 9th of March 2015: Design of the clean air plan Aachen includes Low Emission Zone]. Retrieved from http://www.bezreg-koeln.nrw.de/

Eimer, G. (2014a, June 26). Umweltzone ist kaum noch zu verhindern [Low Emission Zone can hardly be prevented now]. *Aachener Nachrichten*. Retrieved from: http://www.aachener-zeitung.de/

Eimer, G. (2014b, July 18). Neue Schubkraft für den Radverkehr [New thrust for cycling]. *Aachener Nachrichten*. Retrieved from http://www.aachener-zeitung.de/

Eimer, G. (2015, January 21). *Aachen: Schadet die Umweltzone?* [Aachen: Does the Low Emission Zone do damage?] Retrieved from http://www.fdp-aachen.de/news/artikel/aachen-schadet-die-umweltzone

Green Party. (2015, January 20). *Umweltzone – ja, aber…* [Low Emission Zone – yes, but…] Retrieved from http://www.gruene-aachen.de/home/news/umweltzone-ja-aber.html

Hardin, G. (1968). The tragedy of the commons. *Science, 162*(3859), 1243-1248. doi: 10.1126/science.162.3859.1243

Harrington, W., & Morgenstern, R. D. (2007). Economic incentives versus command and control: What's the best approach for solving environmental problems? In *Acid in the Environment* (233-240). doi: 10.1007/978-0-387-37562-5_12

Laberer, C., & Niedermeier, M. (2009). ADAC-Untersuchung: Wirksamkeit von Umweltzonen [ADAC research: Effectivity of Low Emission Zones]. Retrieved from https://www.adac.de/_mmm/pdf/umweltzonen_wirksamkeit_bericht_0609_43574.pdf

Schack, M. (2015, January 21). Entscheidung mit Folgen: Aachener City soll zur Umweltzone werden [Decision with consequences: Aachen is to turn into a Low Emission Zone]. WDR. Retrieved from http://www1.wdr.de/

Stavins, R. N. (1997). Policy instruments for climate change: How can national governments address a global problem? *The University of Chicago Legal Forum, 293*, 293-329. Retrieved from http://chicagounbound.uchicago.edu/uclf/vol1997/iss1/10

Stavins, R. N., & Whitehead, B. W. (1992). The greening of Adam Smith. *The New Democrat.* Retrieved from http://www.hks.harvard.edu/fs/rstavins/Papers/ Greening%20of%20Adam%20Smith.New%0Democrat.1992.pdf

WDR. (2015, January 21). *Aachen wird Umweltzone - und nun?* [Aachen is to become a Low Emission Zone – now what?] [Television broadcast]. Retrieved from http://www1.wdr.de/