

# Children's News Media Use

# **Emily Lambert**

r0306353

Masters' thesis submitted to obtain the degree of

MASTER OF COMMUNICATION SCIENCES

Supervisor: Prof. Dr. Sebastian Scherr Second reader: Elke Ichau

> Academic year 2017-2018 Word count: 11124

# Abstract

In this thesis an attempt was made to evaluate the influence news media use had on the knowledge of German children about the refugee crisis of 2016. Several relevant theories were researched and discussed. The possible lack of fair political participation guided further questions, which were: if more news media use could be linked to a more negative attitude towards refugees, if children's attitudes related to their parent's attitudes, if socio-economic status (SES) was related to general news media use, if more new media use could lead to more knowledge and if knowledge would grow between the two time points. This thesis relied on secondary analysis of two existing datasets. The datasets concerned two separate waves, from March and September 2016. The results were mixed but in general seemed to support the idea that children learn from news media, that their attitudes reflect their parents' attitudes and that a negative attitude shift towards refugees took place. Support was not found for the relation between SES and media use or for the increased knowledge among German children. It seemed that fair political participation is likely in Germany.

Keywords: children, Germany, knowledge, news, refugee crisis

"And I'll rise up, high like the waves. I'll rise up, in spite of the ache. I'll rise up and I'll do it a thousand times again." (Andra Day, 2016)

#### Acknowledgements

Dear reader, I sincerely hope you are seated comfortably and well settled in for reading. However, before diving in to this thesis, which I do hope you will enjoy reading, I would like to write out my thanks to several people. I shall do my best to keep it short and sweet, as the saying goes.

To start off with a cliché, I'd like to thank my mum. Without her strength, support and will to fight for me, my health and my wellbeing I quite literally would not be here today. At a certain point in one's life one expects to be independent and able to care for oneself. This same expectation exists among parents. To find that at the age of young adulthood one is taking large steps in reverse is rather disconcerting. Mum handled the situation with more grace, love and care than most people would have been able to muster. For this I must thank her, as I must also thank her for being my biggest champion, and for dragging me to seemingly endless doctors and specialists, till the root of the matter(s) was discovered. Here I should also thank those very few medical professionals who believed me and my symptoms and as such helped set me on my road to health. Of course, I must also thank my mum for listening to my endless pondering over this thesis, how on earth was I going to integrate the data, how would I create a structure? All the things she must have heard patiently more than a hundred times each.

At this point I will have to abandon all pretence of an order of importance. It is impossible to say who was more valuable, as I feel all these people helped shape my path in their own, unique way. I wish to thank them all equally for the impact they had on my life. They are all part of the reason you are holding this work in your hands right now.

My brother, Sam, deserves his fair share of thanks for making me smile, believing in me, helping me relax (it's surprising how relaxing coding lessons from him can be) and never hesitating to step in when I need help with anything. I'd also like to thank Sam for being the best brother in the world, because let's face it dear reader, I'm going to have to play favourites here.

Kuntay, my very best friend and boyfriend, I must also thank profusely. Without his humour to make me laugh on the darkest days, without his ability to follow my crooked thinking and without his warm hugs I would not have gotten where I am today. The saying goes that behind every man is a (strong) woman; I would like to contend that the reverse is also true. Also thank you for always getting me all the chocolate, even if it's only a floor away.

I'd like to thank my friends, both online and offline, for putting up with my complaints about Word not doing what I wanted it to and for encouraging me when I felt at a loss to continue with this particular project. I'd also like to thank them for being there for me when the going got tough in general. You're all awesome and so supportive, I couldn't ask for more, thank you.

Another person definitely deserving of a thank you is my promotor, prof. dr. Scherr; for supporting me in this endeavour. He was bombarded by questions from me, both big and small. Thank you for taking the time to read them, to answer them and to help me think more clearly about many topics.

The team at ReisburO-Roulot, who were my colleagues during my second internship, need a huge thank you. Jan Benaerts, Heleen Vertommen and Marijke Schout, you made me believe in myself as I never had before. You taught me so much about social work, while at the same time managing to teach me copious amounts about who I am. Thank you for giving me the courage to leap back into academics, when I thought it was an impossibility. My supervisor during this internship, Els Mortier, also deserves a thank you, for repeatedly telling me that taking that leap for a master's degree was right for me. It was, time has proven that. I love learning and though when we met I wasn't the person I am now, mainly in my capacity for staying awake and thinking clearly, I'm glad you saw the potential hidden underneath. Thank you. Another thank you may have to go to my cat, Leentje (who is the most adorable, fluffiest cat of all time I'm sure). This because I am privileged enough to be one of her two favourite humans, but especially because she kept me company the many long hours I spent reading, typing, analysing and thinking. And also because she loves nothing more than sleeping on my rather essential handbooks. Apparently, they make for great mattresses (who knew?).

Finally, I would like to thank you for your willingness to read this work. I hope this thesis, may interest you and offer some fresh insights.

Lambert, Emily

| Acknowledgements                                | i   |
|---|-----|
| Contents  |     |
| List of Tables                                  |     |
| List of Figures                                 | vii |
| Children's News Media Use                       | 1   |
| Children's General News Use                     | 2   |
| Type of News Story Reported                     | 5   |
| Perceptions of the World Through News           | 6   |
| Agenda-setting                                  | 6   |
| Cultivation Theory                              | 7   |
| Parental Mediation and Media Self-Socialization | 9   |
| SES and News Media Use                          | 11  |
| Age   | 12  |
| Knowledge Gaps                                  | 13  |
| Methods   | 16  |
| Datasets and Participants                       | 16  |
| Procedures for Variable Creation                | 17  |
| Measures in a Secondary Analysis                | 17  |
| ID  | 17  |
| Exposure  | 18  |
| Exposure to Refugees in Real Life               | 20  |
| Knowledge Index                                 | 20  |
| Others  | 22  |
| Results   | 23  |
| News Media Use and Attitude Towards Refugees    |     |
| Children's Attitudes and Parents' Attitudes     |     |
|   | iv  |

# Contents

| SES and General Media Use                        | 26 |
|--|----|
| News Media Use and Knowledge                     | 27 |
| Conclusion                                       | 30 |
| Limitations and Indications for Further Research | 34 |
| References                                       | 36 |
| Tables   | 40 |
| Appendix   | 44 |
|  |    |

# List of Tables

| Table 1 Variables: Descriptive Statistics               | 40 |
|---|----|
| Table 2 Hierarchical Multiple Regression, DV: Knowledge |    |
| Table 3 Regression Without HI, DV: Knowledge Index      | 42 |
| Table 4 Regression: Different Broadcasters, DV: KI      | 43 |

# List of Figures

| Figure 1 Interaction | Between Age and General News Media |    |
|----------------------|------------------------------------|----|
| Exposure             |                                    | 29 |

# Children's News Media Use

In this thesis an attempt will be made to analyse how children's news media use is influenced by their socio-economic status (SES) and how their media use relates to possible knowledge gaps. These knowledge gaps (if proven to be large) could indicate an issue with equality concerning knowledge which could imply a possible flaw in the democratic system.

A review of the literature central to the main questions posed will be presented and several hypotheses formulated. The following questions or considerations become prominent: could more news exposure lead to a more negative perception of refugees, could parental opinions about refugees influence their child's opinion and if so, to what degree and is socio-economic status is related to more news media use. These considerations are followed by the model used to analyse possible knowledge gaps and to determine if these differed in March 2016, compared to September 2016. The findings in this specific paper relate to German children and the refugee crisis in Germany anno 2016.

The literature review, where hypotheses are formulated is followed by a discussion of the participants and methods. The methods zoom in on the creation of the variables and the problems encountered, due to the nature of a secondary analysis. When it comes to the results and analyses, the same order of the hypotheses as formed in the literature review will be maintained. This way the first three considerations may help paint a better picture of the data and their interconnectivity, before attempting to gain an insight into possible knowledge gaps.

After the analyses and the discussion of the results, a conclusion will be drawn. To better situate the results a link to the presented literature will be provided within this conclusion. Finally, this paper will present a discussion regarding the strengths and limitations of these analyses and where possible interesting indications for further research are discussed in greater detail.

## **Children's General News Use**

News is available on many platforms and is not only followed by adults, but also by children (Ahern, Conway, Feldbaum, & Wyckoff, 1981; Buijzen, de Leeuw, Gerritsen, & Kleemans, 2017; De Cock, 2012). The main form of news consumption among children is television news, older children generally watch more television news and this particular relation is partially influenced by their parents' media habits (Ahern et al., 1981; De Cock, 2012).

Research shows that children often don't watch specially adapted news on television, but instead follow along with the adult news (De Cock, 2012). This could be because there is no adapted version available for them to watch, or because children mimic their parents, or prefer to watch along with them (Ahern et al., 1981; De Cock, 2012) However even when children's news programmes are available, approximately 60% of children are still found to watch the adult news (in Flanders) (De Cock, 2012; De Cock & Hautekiet, 2012).

The main worry in much of the research is that adult news can have severe negative emotional effects on children. Apart from that it could negatively impact their world view. These worries have been proven to be well-founded and are supported by research in several cases (Babyar, Beidas, Comer, Furr, & Kendall, 2008; Beidas, Comer, Furr, Kendall, & Weiner, 2008; Buijzen et al., 2017; De Cock, 2012).

Though these worries are important, there are several questions that have not been properly addressed thus far. For instance: it has been shown that children's news websites, specifically aimed at them, are often too complex for easy use and that children do not always completely understand them (De Cock & Hautekiet, 2012). The question that naturally follows is if this lack of understanding influences the child's emotional experience. This difficulty of use could be one of the many reasons why watching television news is more popular among children.

Age is a complex, yet important factor in determining how children experience and interpret the news (Babyar et al., 2008; De Cock, 2012). Children are still developing in many ways, and aside from educational benefits that come with being older, the brain is also growing and adapting (Babyar et al., 2008; Berk, 2010; De Cock, 2012). This means that older children are very likely to perceive things differently from younger children. It also means that children in general are very likely to perceive the same news story very differently from adults.

A recent study by Buijzen et al. (2017) proved, through use of an experimental design, that the non-constructive reporting style that is generally used during newscasts and news reporting, has a negative impact on children's emotions. Non-constructive and constructive news reporting are two distinct ways of telling the same story. In essence they're a way to frame the story, which can then impact how the audience receives or perceives it (Buijzen et al., 2017; Scheufele & Tewksbury, 2009).

The concept of constructive versus non-constructive reporting requires some explanation. In non-constructive reporting the focus is on the problems, the negatives, the negative emotions and the lack of possible solutions. The ending is usually open and not rounded out (Buijzen et al., 2017). This tends to leave many unanswered questions hanging in the air and often exudes a negative feeling. Constructive news reporting on the other hand does the opposite: things are phrased positively, focused on solutions and positive emotions and offering a perspective on a better tomorrow (Buijzen et al., 2017).

Framing is a concept similar to second level agenda-setting (cf. infra), though it is considered to be broader and very separate from it by some authors such as Scheufele and Tewksbury (2009), or partially considered as part of agenda-setting by others (McCombs & Reynolds, 2009). Whether or not framing is a part of agenda-setting is a discussion that will not be continued here, the salient fact is explaining what framing entails. At its core framing is the way one

presents a news item or a product announcement, in this case constructive news reporting (positive frame) versus non-constructive news reporting (negative frame). This difference in presentation can then lead to a different interpretation by the audience, for example a more positive view on the subject versus a more negative response to the news item in question. Scheufele and Tewksbury (2009) contend that framing is a way to make ideas, images, text, and so on, (more) applicable to an issue, and as such it changes how the audience interprets or perceives the issue at hand.

The study by Buijzen et al. (2017) clearly showed that constructive reporting of the same story led to less negative emotion gain and less loss of positive emotions in children when compared to the non-constructive condition. This means that constructive reporting can be considered as a way of positive framing (Buijzen et al., 2017; Scheufele & Tewksbury, 2009). Therefore, we could ask ourselves why constructive news reporting is not more common, as this is likely to increase children's desire to watch more news. This question is semi-relevant to this particular paper, as an attempt is made to assess fair political participation through fair knowledge distribution. To reach this goal it is very important to get children (and adults) to watch the news, take an interest in current affairs and so on (Cacciatore, Corley, & Scheufele, 2014). However, the scope of this paper is limited. It will not answer the question why constructive reporting isn't used more often. This could be an interesting topic to consider for future research.

Studies have shown that following the news is an indicator of and predictor for civic engagement, political engagement and feeling engaged with society as a whole in adolescents and children (Ahern et al., 1981; Boyd, Lerner, Phelps, Weiner, & Zaff, 2011; Buijzen et al., 2017). This means that children who engage more with news seem to be and become more active participants of society. Democratic systems need active citizens to make informed decisions about politics and policies in order to function correctly (Cacciatore et al., 2014; Shehata & Strömbäck, 2018). News use in childhood has been linked to more political and civic engagement in later life (Ahern et al., 1981; Boyd et al., 2011; Buijzen et al., 2017), therefore it is important that children watch the news and want to watch it, so that they may develop into active participants of the democratic system.

# **Type of News Story Reported**

The previously mentioned study by Buijzen et al. (2017), is strong as it consisted of an experimental design, but it has its limitations. The study only used two types of news stories to test their hypothesis about constructive versus non-constructive reporting. One story was about violence and the other story about animals. The news is generally more diverse, addressing a wide variety of different topics, such as: politics, terrorism, natural disasters, war, refugees, protests, and so on. These other, more varied topics may have a different effect on their audience when they are constructively or non-constructively phrased, as compared to the two tested stories. Moreover, even within one phrasing type they may have differential effects. Babyar et al. (2008) found that more news media use (specifically television use) was linked to an increased personal risk perception in children. Research also indicates that more news exposure (to a violent news event) leads to more negative emotions (Buijzen, Walma van der Molen, & Sondij, 2007). These studies did not differentiate between constructive or non-constructive news reports, but as Buijzen et al. (2017) state, most of the mainstream news media is non-constructive in nature. In Babyar et al.'s (2008) study, it was found that this relation between television news and increased personal risk perception remained, even after controlling for the child's anxiety levels (which also exerted an influence).

All this seems to indicate that the type of news story doesn't matter. Mere exposure to general news media is enough to produce a negative result for the child. This may point to the fact that the findings of Buijzen et al. (2017) can be generalised further than just the two types of stories they studied, and that constructive news reporting may be an effective way to frame all news stories, in order

to lessen the negative impact they can have on their audience (children or adults).

In general it is important to note that the type of news story doesn't seem to have that much of an influence on the effects found. News in general causes negative responses, such as fear or sadness, in children or adolescents (Babyar et al., 2008; Beidas et al., 2008; Buijzen et al., 2007; Buijzen et al., 2017; De Cock, 2012). Some research has shown that one specific type of news story can activate an additional fear response for other types of (unrelated) disasters (Beidas et al., 2008). These findings will influence the usability and range of this research paper, which focusses specifically on the refugee crisis in Germany in 2016. It seems plausible that news stories about refugees, following the general non-constructive phrasing of news (Buijzen et al., 2017), will have a negative effect on children's emotions and attitudes (cf. infra, hypothesis 1).

# Perceptions of the World Through News

As previously discussed, news media can influence children's and adolescent's emotional state, increasing their fear, risk perception and sadness (Babyar et al., 2008; Beidas et al., 2008; Buijzen et al., 2007; Buijzen et al., 2017; De Cock, 2012). It can also influence the way children or adolescents perceive the world around them. Two major theories in communication science might help to clarify this phenomenon, namely agenda-setting combined with the basic principles of cultivation theory.

#### Agenda-setting

Agenda-setting was first researched and named as such by McCombs and Shaw in 1972. Agenda-setting is a phenomenon where the news media's choice in stories influences the salience (this is the relevance or importance) of these issues in the mind of the public. A news story that is repeated several times in the media will become more accessible to the public, and as such seem more important (McCombs & Reynolds, 2009; McCombs & Shaw, 1972; Scheufele & Tewksbury, 2009). This means that journalists have a certain degree of power to set the public agenda and influence the people who watch the news (McCombs & Reynolds, 2009; McCombs & Shaw, 1972).

Aside from this general level of agenda-setting, there is a secondary level (McCombs & Reynolds, 2009). This level isn't about the salience of a topic in general, but about the attributes of the topic. The way these attributes are reported on or portrayed in the news media repeatedly, will influence the accessibility of these topics and how the public thinks about them (the items that are currently on the public agenda) (McCombs & Reynolds, 2009; Scheufele & Tewksbury, 2009).

This means is that if many news channels suddenly start reporting on issues with refugees it may become a problem in the mind of the public; even if it is not necessarily an actual problem, or when the problem is less severe in reality. It is because the topic will be at the forefront of the public's mind that it will seem more salient (McCombs & Reynolds, 2009; McCombs & Shaw, 1972). An example related to the main topic of this paper would go as follows: a minority of refugees cause issues, but they are the only refugees reported on by the various news channels. They are reported to be causing trouble, which is an attribute of the topic of refugees. Therefore, the salient facts in the forefront of people's minds will be: "refugees are an important topic" and "these refugees all cause problems". Repeating this time and time again, across broadcasts, channels and multiple media outlets, over a period of time, could cause a possible attitude shift or prejudice within the audience, as indicated by cultivation theory.

# **Cultivation Theory**

Cultivation theory was first posited by George Gerbner in 1969 and is generally applied to fiction. However, it may be of use in this particular instance as well. Cultivation theory states that the narratives people are exposed to on a regular basis are absorbed and then help form the expectations of what will happen in real life (Gerbner, 1969; Morgan, Shanahan, & Signorielli, 2009). The more one hears a narrative (or certain similar narratives), the more one will think this is how that specific situation works. The audience may consider the chance of a certain situation happening in real life much higher than the chance of this actually happening, due to the narratives they observed and absorbed. When this happens for topics such as crime it is also referred to as *mean world syndrome* (Gerbner, 1969; Morgan et al., 2009). Television and other mass media are unique, as they allow the same narrative to reach millions of people all at once. A side effect of this is that it makes the narratives more homogenous and means more people can be influenced in the same way (Morgan et al., 2009).

A very important aspect of cultivation theory is time (Gerbner, 1969; Morgan et al., 2009). Cultivation does not happen straight away, or after watching just the one film. Cultivation effects form slowly, and as such shape our expectations of how the world works and what can be expected to happen. This process is subtle and sets in after repeated exposure to similar narratives (e.g. love always wins). People seem to forget that what they see on television (in soap operas or films for example) isn't real and thus it will still influence their expectations (Morgan et al., 2009). What does this tendency mean with reference to news, which is very real in every sense of the word, and has been known to often repeat similar themes, such as crime or war (De Cock, 2012)?

News conforms to several of the requirements for cultivation to occur: the news stories are often presented as narratives (though usually unconstructively phrased as noted by Buijzen et al. (2017)), and more often than not what are considered 'big' or important topics are repeated multiple times on multiple tv stations and in other news media (De Cock, 2012). This repetition, combined with the fact that these reported issues are taking place in reality and are very real, so that people don't and *can't* remind themselves of the fact that it is imaginary; may lead to cultivation effects occurring and internalisation of the dominant news narratives.

This idea of cultivation theory combined with the main principles of agenda-setting can only lead to the conclusion that

journalists and news stations possess a large amount of power. They can influence *what people think is important*. By way of framing or secondary level agenda-setting they may even influence *how people think about* the topic (McCombs & Reynolds, 2009; McCombs & Shaw, 1972; Scheufele & Tewksbury, 2009). If, on top of that, a particular topic or narrative is repeated often enough within a certain time frame, it could lead to people perceiving the world completely different from reality. The public could start to see refugees as an actual threat, purely through the news media they have consumed. This process combined with the previously mentioned conclusion that news leads to negative emotions in children and adolescents, leads to the first hypothesis to be addressed in this paper.

<u>Hypothesis 1</u>: Considering that news media usually focus on negative news and represent things in a negative light, it is expected that more news media use will lead to a more negative attitude towards refugees in children.

# Parental Mediation and Media Self-Socialization

Many parents don't limit television or internet use, yet even limiting the use doesn't seem to stop children from feeling an increased sense of personal risk (Babyar et al., 2008). Parental supervision (coviewing) and parental mediation are no cure-all according to De Cock (2012), in fact, restrictive parental mediation (i.e. limiting what children see) and active mediation (i.e. talking to children about the news) are often related to higher fear and sadness scores (Buijzen et al., 2007). The way parents talk about what was on the news seems to be the key factor here.

This is in agreement with the findings of Babyar et al. (2008) and also with the findings of Beidas et al. (2008). They conclude that the parental role of talking to the child seems to have little to no effect with regard to violent news clips, if the parents have had no training. Two factors that seem to help prevent or stem anxiety are: training parents in coping and media literacy, as this does seem to positively influence the reactions of their children when they can

discuss it with said trained parents (Beidas et al., 2008), or constructive news reporting (Buijzen et al., 2017).

The type of parental mediation used (restrictive, active or coviewing) can also affect the parent's relationship with their teenager or child and the relationship said adolescent or child has with the media content in question (Buijzen et al., 2007; De Cock, 2012; Nathanson, 2002). The pre-existing relationship of the parent and the child can also be said to influence the mediation or lack thereof (Gerke, Kelly, & Warren, 2002). The mediation of media content tends to be more effective in parents who spend more time with their children. The type of mediation a parent will employ and their reasons for employing it are related to a child's age. Which in turn determines the outcome the chosen type of mediation will have (Buijzen et al., 2007; Gerke et al., 2002; Nathanson, 2002). For instance, parents will feel a stronger need to protect younger children from harmful content and are thus more likely to use restrictive mediation, whereas the use of restrictive mediation in older children or adolescents could lead to the media content becoming more appealing; also known as the forbidden fruit principle (Nathanson, 2002).

What parents do and say about specific media content, and how they do it, can also influence the attitude their children have towards said media content (Buijzen et al., 2007; De Cock, 2012; Gerke et al., 2002; Nathanson, 2002). Children and adolescents are sensitive to their parents' emotions and, mainly in the case of younger children, are liable to copy these emotions (Berk, 2010; Buijzen et al., 2007). This raises the question if parent's attitudes towards refugees influence their children's attitudes. It is difficult to develop a hypothesis about this relationship for the dataset here provided. We do not know what parental mediation style the parents in the sample used. However, it seems likely that parental influence is always present, regardless of mediation style. In any case it is possible to establish whether a correlation between children's attitudes and their parent's attitudes is present. It is very likely that what parents think and say about the refugee crisis, how often they talk about this topic and how they frame it, has a great impact and influence on their children or adolescents. Framing, as mentioned previously, refers to the way one presents a news item (Scheufele & Tewksbury, 2009).

<u>*Hypothesis 2:*</u> Children's attitudes will be positively related to their parents' attitudes regarding refugees.

#### SES and News Media Use

When considering the development of children's cognitive capabilities, as well as their physical selves, one tends to run into the nature/nurture debate (Berk, 2010). What amount of variance between humans is due to their genes versus what amount of variance is due to the environment they grew up or live in? Most researchers seem to agree the split is about fifty-fifty (Berk, 2010). This means that the parents' socio-economic status (SES), arguably part of the nurturing component, will have great influence on how their child develops in many ways (e.g. the food a child eats, the schooling a child will receive, the support at home with regard to homework and so on). Nathanson (2002) points out that SES influences the relationship between children and their parents. This parental-child relationship can in turn exert an influence on how mediation of media is perceived by the child and this can then influence how children perceive this media content (Gerke et al., 2002; Nathanson, 2002).

Education and income are important parts of the SES. When researching children SES usually concerns the education and income of their parents (American Psychological Association, n.d.). Hindman & Wei (2011) point out that education can lead to differential media use. Those with a higher SES background are more likely to watch/read informational or educational programmes/articles. Their lower SES counterparts tend to focus more on for example the sports page or entertainment. This leads to the conclusion that a child's SES can play a pivotal role in what type of media they consume. Considering the above, it seems likely that SES is a factor that should be examined in this research paper and that it may play a part in children's understanding of, and reaction to the news. It is also very likely that SES plays a role in how much news media children and adolescents consume. This leads to another question this paper will attempt to answer: does SES correlate to news media use?

<u>Hypothesis 3:</u> The expectation is that a higher SES will be linked to more news media use, as also proposed by the knowledge gap hypothesis (cf. infra).

#### Age

The subject of the age of the child has been touched upon several times in literature. It seemed necessary to give this concept its own space to further clarify why it is mentioned so often. Many of the studies discussed here centre either on adolescents or on children. A conclusion that can be drawn is that age plays a large role in the effects or relations that media use creates or influences (Ahern et al., 1981; Babyar et al., 2008; Beidas et al., 2008; De Cock, 2012; Nathanson, 2002). Therefore, it may be important to control for age, or at the very least take it into account. The pivotal age of importance would be around 11 years old. This is because children, under the age of 11, can generally be said to become adolescents at 11 and over (Berk, 2010). This move into adolescence can vary between children and also varies between genders. Boys generally mature a little later than girls (Berk, 2010). The coming of adolescence is of import, as it announces many changes on different levels.

Many of these changes create the differences between children and adolescents. These differences between the age groups are mainly due to developmental changes in the brain and body as well as formation of their own identity (Berk, 2010; Nathanson, 2002). For example, younger children cannot yet comprehend abstract concepts, whereas adolescents rapidly improve at this skill (Berk, 2010; De Cock, 2012). Adolescents, as opposed to young children, are very focused on attempting to form their own identity, separate from that of their parents (Berk, 2010; Nathanson, 2002). This can lead to conflict with parents, more reliance on peers and a turning away from their parents' attitudes (Buijzen et al., 2007).

There are several theories on how children's cognitive skills change and grow with the movement into adolescence (Berk, 2010). It is not opportune to discuss them all in this paper. The salient fact is that most researchers agree that a child's thinking does in fact change when maturing into adolescence and that this change from middle to late childhood into adolescence generally starts at around age 11 (Berk, 2010; De Cock, 2012).

#### **Knowledge Gaps**

The knowledge gap hypothesis states that people with a higher education gain informational knowledge more quickly from traditional media than do their lower educated counterparts (Donohue, Olien, & Tichenor, 1970; Hindman & Wei, 2011) and in doing so knowledge gaps between the two groups grow larger. This means that people with a higher education gain knowledge more quickly and thus usually end up having more knowledge on the given subject. The advantage they started with seems to keep giving them an advantage.

There is however, a difference across mass media. Not all media types exert the same influence. Traditional media, such as newspapers for instance, seem to make knowledge gaps larger, whereas television use seems to make them smaller (Cacciatore et al., 2014; Hindman & Wei, 2011).

As mentioned previously, the main news source for children is mostly the television, where they mainly watch adult news shows (De Cock, 2012). Newspapers and the internet are far less popular (and in the case of children's news websites, struggle with bad usability scores) (De Cock & Hautekiet, 2012). As children seem to use television as their main source of gathering knowledge from the news, it seems likely that this could shrink the knowledge gaps about worldly events for children (Cacciatore et al., 2014; De Cock, 2012; Hindman & Wei, 2011). In this specific case the question is if news media use in children leads to knowledge gaps about refugees, thus putting children of lower SES families at a possible disadvantage when it comes to political participation (Ahern et al., 1981; Boyd et al., 2011; Buijzen et al., 2017; Cacciatore et al., 2014). This follows from the conclusion that lower SES seems connected to less informational or educational media use (Hindman & Wei, 2011). Alternatively the question rises if the fact that children mainly use the television acts as a great equaliser as mentioned in the research of Cacciatore et al. (2014) or Hindman & Wei (2011).

Considering the implications for a fair democratic society, it seems relevant to know if these gaps in knowledge do or do not occur. If television news media use is a great equaliser among children, it could indicate a fairer political participation and greater equality in the future. If this is not the case, it could indicate a problematic distribution of knowledge in society among children (due to factors that are not within their control), which could follow them into adulthood.

Another interesting facet would be the evolution of the knowledge regarding refugees. As the data allow for two time points to be analysed perhaps an inference can be drawn about the further development of the knowledge gap regarding refugees in Germany over time, after more exposure. If the knowledge gap gets smaller it could be an indication that the television is indeed acting as an equaliser.

In simpler terms this means that the expectation is that the more news media children consume through various channels, the more informed they will be, regardless of SES. As such this will shrink the knowledge gap (regarding refugees in Germany) and give an indication for fairer political participation in the future if this finding can be replicated for other topics. <u>*Hypothesis 4:*</u> Children's general news media use will increase the knowledge among them about the German refugee crisis.

<u>Hypothesis 5:</u> When comparing wave 1 with wave 2 the expectation is that the knowledge will have grown over time, as those who struggle more due to a lower SES will have had a chance to "catch up".

# Methods Datasets and Participants

The data for this analysis was collected in Germany, in March (wave 1) and September (wave 2) of 2016 by a professional company. Two separate surveys were conducted. These share no connection between their participants. In both surveys children and adolescents aged 6-19 years were interviewed about their media use, as well as their opinions and knowledge regarding refugees. Hence this data offers a unique chance to shed light on children's perceptions of the German refugee crisis. There were also questions regarding income, education of parents, number and age of siblings, city size and so on.

Wave 1 included 741 children and adolescents, between 6 and 19 years of age (M = 12.7, SD = 4.07). Of these participants 387 were male (52.2%) and 354 were female (47.8%). The sample was matched to the German population by age, gender and migration background of the children and adolescents surveyed, highest school degree of the head of the household (for 6 to 12-year-olds) or own school attendance for the 13- to 19-year-olds. The sample also took into account the distribution according to Federal states, municipal size classes and the marital status of the mother. The data is representative of the children and young people in Germany. The data were collected in face-to-face interviews at home with computer-assisted personal interviewing (CAPI) using standardized questionnaires. The interviews were conducted by specially trained young interviewers. The survey period was from 1 March to March 31, 2016.

In wave 2 there were a total of 1448 participants, with ages ranging between 6 to 19 years (M = 12.7, SD = 4.05). In this sample 732 of the participants were male (50.6%) and 716 were female (49.4%). This sample was held to the same stringent requirements as wave 1, meaning it too is representative for the German population of children and adolescents. Meaning that, while not a perfect mirror image, the distribution in both samples is very nearly equal and comparable.

# **Procedures for Variable Creation**

# Measures in a Secondary Analysis

The final dataset strongly depended on the questions asked in both waves and their comparability – a dilemma of all secondary analysis of already existing data (Donnellan & Lucas, 2013). Secondary data analysis offers many benefits, such as conserving resources or working with a bigger, more representative dataset, but the inability to adjust interview questions or to make adjustments to methodology make it challenging (Donnellan & Lucas, 2013). The result of this being that some of the created variables or measurements are not of optimal quality, as discussed in greater detail for each variable under its specific heading and clarified further in the limitations section.

The key factor in variable creation and adaptation was ensuring they were as consistent as possible between dataset 1 and dataset 2, because comparable variables are necessary for a reliable analysis (Donnellan & Lucas, 2013). For many variables this was not an issue, for others this led to reduced information or restructuring of data, in an attempt to get as much information out of the datasets as possible.

Another side-effect of running a secondary analysis on the data is that not all variables created ended up being used. The reason for this is that during the analysis or recoding it sometimes became clear that a variable wasn't right for the type of analysis envisioned. This resulted in either dropping these variables in favour of others or leaving them out. In the following paragraphs it will be clarified how and why variables were encoded the way they were or why they were abandoned later on and are not present in the analyses. An overview of the descriptive statistics of these discussed variables can be found in Table 1 on page 40.

# ID

An ID variable was created using SPSS and was put in both datafiles. It starts at 1 and runs on to 2189 (the total number of

participants after merging the datasets). This simple numeric value allowed for separation of the cases and double checking in the original waves to confirm no mistakes were made when recoding variables.

#### Exposure

Exposure to media use was tackled in two ways. On one hand a general exposure or general use measure was created. On the other hand, a channel-based exposure measure (public broadcaster, private broadcaster, children's television) was developed. Finally, a measure for exposure to news about refugees via friends or family was encoded.

The general exposure measure was based on the use of different media for news in response to the question "From where do you know all these things about refugees, what media did you get this knowledge from?". The use of the possible media (here: newspaper, radio, tv & internet) was assessed on a yes or no basis. Added up this gave a score out of four, four being the most general exposure. This measure was not ideal, as it lacks a degree of specificity, and as mentioned previously these different media can have a different influence on knowledge gaps (Cacciatore et al., 2014; Hindman & Wei, 2011). However, it was the only measure that was available in and comparable between the waves. It was the only option to be able to compare the wave from March 2016 with the wave from September of that same year.

Furthermore, .from an article by de Vreese and Neijens (2016), which presents an overview of the most common methods of measuring media exposure, it becomes obvious that measuring media exposure is difficult at the best of times. There are many ways to measure and each has its own pitfalls. The method used here would situate itself between aided and unaided recall, on a basis of self-report. Though self-report has issues, it does seem to be one of the most commonly used methods to measure media exposure at this point in time (de Vreese & Neijens, 2016).

Channel-based exposure was calculated on a yes or no exposure basis, instead of counting all the channels that were mentioned. This was necessary to avoid a recall bias, but also to make the measure somewhat comparable in both waves. Recall bias can be a danger when asking open-ended, retrospective, self-report questions (de Vreese & Neijens, 2016; Hassan, 2005; Raphael, 1987), as some people may recall more than others, leading to overor underreporting of what is of interest. Recall bias can depend on many factors including, but not limited to: the phrasing of the question, the participant's concentration levels at that time, how recently they saw/experienced what they are being asked about or possible knowledge of the desired outcome (Hassan, 2005; Raphael, 1987). In wave 1 channel info was codified. This meant that it was easily recoded and transformed in SPSS, and a recall bias was less likely due to the fact that the options were presented to the participants in equal measure.

Because this information was captured differently in wave 2, namely as an open-ended question asking for tv-shows instead of channels, a manual recoding of all answers to this question took place. This open-ended question structure increased the risk of a recall bias (de Vreese & Neijens, 2016; Hassan, 2005; Raphael, 1987). Aside from that, the question also did not force an answer, meaning many fields were left blank, or contained phrases such as "I don't remember", "no indication" or "I'm not sure". During the recoding each television show was researched, assigned to the proper broadcaster and then given a code depending on the fact if it was a public broadcaster, a private broadcaster or a children's show. Unspecific mentions such as "news", "talk shows" or "political debates" that could not be specified were removed. Mentions of names were also removed, if they were not traceable to a programme named after the person in question. Sometimes interpretation had to take place if names of shows were misspelled or incomplete. Excel based formulas were used to extrapolate this information to a simple one or zero per broadcaster category. This procedure has the highest likelihood of the measures being comparable, in the opinion of this researcher.

For exposure to news about refugees via friends or family, wave 1 data proved easier to extract. The question was posed in the same way as for exposure to media (in fact they fell under the exact same variable), namely: "From where do you know all these things about refugees, what media did you get this knowledge from?" The answers were already codified, and a simple count sufficed to have a yes or no answer to exposure to news about refugees from parents, or from friends.

In wave 2 the question was put differently. First the children were asked if they had seen, heard or read something about the topic of refugees on tv, the internet, in the newspaper or on the radio. After this question came the following option: "Others, namely?" Microsoft Excel was again used to recode the answers. Terms such as "father", "mother", "family" and "at home" were counted as parental exposure. Terms like "friend", "friends" were counted as exposure via friends. As this was an open question, with no forced response and very little to aid recall, many left this blank, (88.4% in the case of family, 98.6% in the case of friends). This meant that this variable was treated with extreme caution and not considered for further use.

# **Exposure to Refugees in Real Life**

Exposure to refugees in real life was measured in two questions, which were considered to be sufficiently comparable for use. Question one: "Have you ever met refugees and for example entertained or played with them?" (asked exactly like this for both waves). Question two: "Are there refugee children in your class, your kindergarten, training company, study program or job?" (in wave 2 there was the addition of vocational school). The answers to these questions came on a yes or no basis and were then added up to form a rough scale of real life exposure varying from 0 (none), to 2 (more exposure).

#### **Knowledge Index**

Both waves were asked several knowledge-based questions. Two of those were phrased the same way and were thus comparable. The questions were the following: "What do you think, how many refugees came to Germany in 2015?" and "What do you think, who of the refugees is allowed to stay in Germany for three years or more?". These questions were both multiple choice in nature. In the case of the second question multiple answers could be checked. These questions were factual questions, meaning the measured knowledge could be checked against relevant facts and figures or after consulting the relevant laws (Library of Congress, 2016). As such responses were verified to see if they were wrong or right and scored accordingly (1 = correct, 0 = incorrect). These two were then added up to form a scale out of two, where zero means no answers correct and two means all answers correct. A similar measurement, also with factual questions but scored out of three, was used to good effect in the research by Cacciatore et al. (2014).

#### Education

The question regarding education of the parents was asked in the same way in both waves. The response options were recoded into higher education (university or college degree) versus lower education (secondary school degree or lower). This variable was deemed valuable to determine SES.

While it seemed important to not only consider the education of the parents, but also that of the child in question it proved impossible. When it came to highest degree attained so far there were approximately 86% of the answers missing in both waves. This meant that this variable was definitely not an ideal, or even useful, measurement. The variable for current schooling also posed problems. While in wave 1 there were "only" about 15% of the answers missing for current schooling, the answer options did not compare to those used in wave 2. The breakdown of wave 1 was that aside from the missing responses, every child seemed to be at school in some capacity (85%). In wave 2 there were no missing answers, which was a plus. However, there was little distinction between the type of education (especially on a secondary school level), which did not match the way the answers were structured in wave 1. The breakdown of wave 2 was that the majority of the participants were still at school in some capacity (96%).

Considering the many missing responses for the first considered variable and the lack of similarity in response rates and answer options for the second variable, it was decided to drop the idea of including child education, especially as the majority still seemed to be in school in some capacity. This was done to avoid obfuscating the results. Furthermore, education in children is often linked to their age (the older a child is, the higher up in the educational system they usually are). Therefore, the age of the participant is perhaps also a good predictor to roughly capture their education.

# Others

Variables such as age, gender, attitude about refugees, income, nationality of child, real life exposure to refugees and migration background were all to be found in the original datasets. Many of them did not need recoding, or only recoding for reasons of clarity. Most of these variables seem self-explanatory. The attitude towards refugees was measured on a five-point smiley scale in each wave. Income was measured on a scale of 1-7, with income brackets (e.g. 1 = up to 780€/month, 2 = 781-1300€/month, and so on), but in wave 1 only 405 of the 741 participants reported their household income (55%).

#### Results

## News Media Use and Attitude Towards Refugees

Hypothesis 1 states the expectation that more news media use leads to a more negative attitude towards refugees in children. The primary correlational analysis did not show this to be true, yet a further analysis did provide possible proof.

For wave 1 a positive correlation was found (r = 0.143, n = 741, p < 0.001), which means that more news media exposure was related to a more positive attitude towards refugees. This result is the opposite of the original expectation. For wave 2 a negative, non-significant correlation was found (r = -0.008, n = 1448, p = 0.775). This means that for wave 2 there was no statistically significant relationship between media exposure and the opinion of children on refugees.

As this went against the expectations created by the literature, a secondary analysis was run. The choice fell on an independent samples t-test to compare the average attitude of children towards refugees at both time points. The choice for the independent samples test was quickly made, as both waves did not contain the same participants and were as such independent from each other.

This t-test showed that there was a significant decrease in the attitude towards refugees between the two waves. Wave 1 (M = 3.15, SD = 0.774) scored significantly better than wave 2 (M = 2.02, SD = 0.764), t(1474.592) = 32.464, p < 0.001 (two-tailed), with Cohen's d equal to 1.469; which is considered a large effect size (Field, 2016). In simpler terms there was 1.469 standard deviations difference between the means. The absolute difference between the two means was 1.13. In terms of the scale used, their attitude dropped more than a whole scale point on a five-point scale (so roughly about 20%). This means that in September 2016 children had a significantly more negative attitude towards refugees than in March of that same year, and that the size of this effect was substantial.

Even though the correlations ran counter to expectations, the t-test findings, combined with the dropping away of the positive correlation in wave 2 offer partial support for the hypothesis that long-term, and thus more exposure to news media (about the refugee crisis) will lead to a more negative attitude towards refugees.

An alternate explanation could be that more contact with refugees in school or elsewhere, over time negatively impacted their opinion. This would then explain the downward trend in their attitude towards refugees. Another possible explanation could be that the group of participants in September had more negative opinions, regardless of exposure or experience, than the group in March; though this seems more unlikely than the previous explanations.

To further examine if more contact with refugees in real life was a possible explanation for this lowered attitude towards refugees in wave 2 (as compared to wave 1), another independent samples ttest was run. This time on the rough real life exposure to refugees scale (scored from 0-2). The distribution of this scale was very slightly skewed towards the 0-end of the scale, so this may also have had a small impact on the results discussed further on. The expectation is that if the decreased attitude towards refugees stems from more exposure in real life in wave 2, wave 2 will show significantly higher exposure levels than wave 1.

This t-test revealed that there was no significant differences in exposure between wave 1 (M = 0.67, SD = 0.885) and wave 2 (M = 0.70, SD = 0.864), with t(-0.647) = 2187, p = 0.518 (two-tailed) and with Cohen's *d* equal to 0.034, an irrelevant effect-size. This result implies that children in wave 1 reported being exposed to real life refugees about the same amount as the children in wave 2. This means that the t-test didn't offer support for the idea that more exposure in real life was a possible explanatory factor behind the drop in attitude towards refugees.

Lastly, it was decided to run a correlation between real life exposure to refugees and attitude towards refugees, split across waves. If the decreased attitude towards refugees stems from more exposure to refugees in real life, the expectation is that a negative correlation will be found between these two variables, especially in wave 2 (which is a later point in time). More exposure would lead to a less positive attitude.

The correlation found in wave 1 was significant and positive (r = 0.309, n = 741, p < 0.001). The more reported real life exposure to refugees in wave 1 was thus related to a more positive attitude towards refugees. This seems to tie in with the generally more positive attitude in wave 1. In wave 2 a significantly negative correlation was found (r = -0.220, n = 1448, p < 0.001). This indicates that in wave 2, more reported real life exposure to refugees was in fact related to a less positive attitude towards them.

In conclusion, the mean attitude towards refugees in Germany worsened between March and September 2016. This drop seems to be partially explained by exposure to news media and partially by exposure to refugees in real life. These two are very likely not the only factors behind the decline in attitude, as none of the mentioned factors seem to satisfactorily explain what is going on. Most striking are the big differences between wave 1 and wave 2, both in correlational results, and in mean values. This seems to indicate that a possible trend of negativity grew around refugees between March and September 2016. This could be due to more negative framing in the press, more issues arising, the children in wave 2 being generally more negative about the topic, or other mechanisms.

# Children's Attitudes and Parents' Attitudes

Hypothesis 2 contended that children's attitudes to refugees would be strongly related to their parents' attitudes. Neither wave 1, nor wave 2 contained a direct measure of the parental attitude. Rather the children were asked what their parents thought of Germany accepting refugees. While not an ideal measure, another option for analysing this question was not available. Research regarding children reporting parental attitude seems thin on the ground. However, a study by Brown, Herjanic, Herjanic, & Wheatt (1975)
shows that children are generally reliable reporters about their own emotions, behaviour and factual questions, when compared to the answers their parents give. Perhaps then it is not too much of a stretch to assume that children will report their parents' attitudes as accurately as they are able to.

For wave 1 a strong positive correlation was found between the child's own attitude and the reported parental attitude (r = 0.898, n = 741, p < 0.001). In wave 2 another strong positive correlation between these two variables was found (r = 0.825, n = 1448, p < 0.001). This means that in both waves the attitude of children and the perceived attitude of their parents concerning Germany accepting refugees, was tied together. If the child thought more positively about refugees, the attitude of the parents would also be more positive. If the child's attitude was more negative the perceived parental attitude was also more negative. This finding offers support for the proposed hypothesis.

### **SES and General Media Use**

In hypothesis 3 the consideration was made that a higher SES (in this particular analysis household income) would correlate positively with more informational news media use, as proposed by much of the relevant literature.

Surprisingly this relation was not supported by the data in either wave, the correlations proving to be statistically insignificant in both cases. Wave 1 (r = -0.058, n = 405, p = 0.247) and wave 2 (r = 0.003, n = 1448, p = 0.920) seem to suggest that there is no relation between household income and exposure to news media in Germany.

Though unexpected there are several possible explanations for this phenomenon. For one, it is possible that the wealth is more evenly distributed in Germany, with less variation. Or it could mean that more emphasis is placed on informing oneself than in the countries where other research on this topic has been conducted. It could be down to the fact that the measure for media use here was limited, due to the constraints of a secondary analysis. Not all participants sharing their household income in wave 1 could have had an influence as well. Though this result came as a surprise, it could prove a fertile ground for future research, if the same result can be replicated with a more robust media measurement.

# News Media Use and Knowledge

The expectation formulated in hypothesis 4 was that children's general news media use would increase their knowledge of the German refugee crisis. Hypothesis 5 assumed that the knowledge regarding refugees would grow between the measurement in wave 1 (March 2016) and the measurement in wave 2 (September 2016). A multiple hierarchical regression was run to determine if any support could be found for these hypotheses, similar to the Cacciatore et al. (2014) research paper. The possible interactions between age, media exposure and the time of measurement (wave) were taken into account.

An overview of the results of the first hierarchical multiple regression is shown in table 2, page 41. As mentioned previously, wave 1 was missing a lot of responses regarding the household income variable. In table 2 (page 41) household income was included with pairwise deletion. Table 3 on page 42 presents the results of the model without the inclusion of household income. The Durbin-Watson statistic was close enough to 2 in both cases (1.958 and 1.939 respectively) and no further indications of possible multicollinearity between variables was found. Furthermore, the variables were checked for normal distribution and linearity, which seemed to be in order.

There wasn't much difference in the predictive power between these two regression models when comparing the model summary ( $R^2$  total = 3.5% versus  $R^2$  total = 3.4%). A more in depth look revealed that the models were very alike, especially when comparing the two final models with each other. It was decided to continue with the first regression model, presented in table 2, since removing household income seemingly had little to no effect on the final results.

Based on the first regression model (table 2, page 41) it seems that the only two variables that have a consistent impact on the knowledge index are the general exposure measure and the interaction between this measure and age. Age of the participant, while significant in block 2 and 3, is not significant in the final block. While there seems to be a downward trend in knowledge, this too is not a significant predictor in the final block. Several versions of the model were run, where the knowledge index was transformed in several ways (scoring out of three, using a z-score, scoring it using relative frequencies, scoring it out of two...), but the negative influence of the interaction between age and news media exposure on the knowledge index remained significant. In the regression models shown here the knowledge was scored out of two, possible values thus being 0, 1 and 2. This interaction will be discussed in more detail below. However, it seems more pertinent to consider first if our hypotheses found support or not.

The hypothesis that general news media use would be related to an increase in knowledge did find support in the regression model. There was a positive relation between the knowledge index and general news media exposure. The addition of the exposure variable in step 3 explained 0.8% more variance. ( $R^2$  change = 0.008, F change (1,1827) = 14.882, p < 0.001). In the final step news media exposure had a  $\beta = 0.118$ , p < 0.001; meaning that for 1 standard deviation increase in the exposure, the knowledge index would go up by 0.118 of a standard deviation. This seems to indicate that more exposure is indeed related to more knowledge about refugees in Germany.

Hypothesis 5 was not supported by the regression model. Knowledge regarding refugees did not increase over time. When the variable "wave" was added to the model in the first block it was significant ( $R^2$  change = 0.005, F change (1, 1833) = 9.636, p = 0.002); but the beta coefficients were no longer significant after step two (see table 2, page 41). Disregarding significance for a moment, the beta values are all negative in nature, suggesting that knowledge decreased as time went on, though not significantly so. The interaction between age and news media exposure wasn't entirely unexpected. On the first run of the linear regression the graphing of this interaction was very counter-intuitive and indicative of a potential issue. Therefore, it was decided to adapt the knowledge index, to see if this could be the root of the problem. Instead of scoring out of three (as originally planned), the score was made purer by scoring out of two. Previously participants could get a point for avoiding the most wrong answer. This option was removed to seemingly good effect. To better understand this interaction it was graphed. SPSS was used to group the participants on either "high" or "low" media use, by way of a median split.



Graph showing the interaction effect between age and news media exposure (low versus high) in relation to the knowledge index.

*Figure 1* Interaction Between Age and General News Media Exposure This figure shows that those with high exposure (dashed line) generally score higher on the knowledge index than those in the lower exposure group (solid line). However, as age increases this difference gets smaller. In this sample the maximum age was 19, at which age it seems that the amount of exposure no longer plays as great a role in predicting the knowledge regarding refugees as it does for younger children.

Finally, a simplified version of the regression model was run, in an exploratory capacity. The general media exposure variable was replaced with the variables regarding use of public broadcaster, private broadcaster or children's television. This was done to test if these different types of broadcasters had different effects on knowledge. An overview of this regression can be found in table 4 on page 43.

From this model it seems that watching news (or news programmes) on public broadcaster channels is positively related to children's knowledge ( $\beta = 0.078$ , p = 0.002), whereas private channels or children's television are not significant in this block. The whole broadcasters block explained 0.6% of the variance ( $R^2$  change = 0.006, *F* change (3,1825) = 3.494, p = 0.015). This is a first, rough indication, that taking the broadcasters a child uses into account can be of importance when it comes to assessing knowledge gained from news media. It is mildly surprising that children's television doesn't have a significant impact, as one would expect children to understand these shows better and thus learn more from them.

#### Conclusion

The results of this thesis were mixed, with some hypotheses finding full support and others only partially supported. This means that a single, easy conclusion will not be within the realm of possibilities. However, we can attempt to answer the question of fair political participation in Germany in small steps. To reach a full, satisfactory answer will most likely require further, more targeted research. The results show a worsening of attitude among German children towards refugees over time. Some of this seemed to be related to media use, but this did not sufficiently explain the registered worsening in attitudes. Then a test was run to see if exposure to refugees in real life could help further explain this relationship. In wave 2, which was by far the most negative, we found a negative relation between these two variables, whereas the opposite was true of wave 1. What precisely is going on here cannot be determined within the scope of this research paper. It is clear however, that the attitude towards refugees in wave 1 was markedly different from and higher than in wave 2, and that both waves related differently to media use and exposure to refugees.

Though our data is not sufficient to support the premise, these findings possibly point in the direction of *compassion fatigue* occurring. Compassion fatigue is a concept originally developed with regard to feeling burnt out and feeling a lack of compassion towards patients or clients (Cameron, Kinnick, & Krugman, 1996). However, it has since also been researched in the context of mass media. The high saturation of social issues, which are reported repetitively and negatively without solutions, causes people to feel burnt out and lose empathy (Buijzen et al., 2017; Cameron et al., 1996; De Cock, 2012). This in turn can cause numbress or rationalising among the audience (for example: it's their own fault they're homeless). Some authors contend this phenomenon does not exist, others say it does but has differential effects on people (Cameron et al., 1996; Colten et al., 1995). In any case, it could perhaps prove a fruitful avenue for future research into the topic of refugees, news and attitudes of the audience.

As expected parental attitude correlated highly with children's attitude in both waves. Though the measurement was not ideal, and correlation does not equal causation, it seems most likely that parental attitude influenced their children's attitude. This implies that to shift children's opinions, it may be necessary to look at the parents as well. This is in line with what we expected from the literature, where we found many indications for parental attitude influencing that of their children (Ahern et al., 1981; De Cock, 2012; Nathanson, 2002).

An unexpected result was that in this data no correlation was found between household income and general news media-exposure. In other research it seems a rather consistent finding that higher SES groups use media for more informational news purposes (Cacciatore et al., 2014; Hindman & Wei, 2011). As such the expectation formed was that higher SES would be related to more general news media use. We can hypothesize that there may be a difference in general wealth or culture, or both, between the previously studied countries and Germany. With regards to fair political participation this is actually a really good indicator for Germany. If everyone is equally accessing the news media, there is a higher likelihood of everyone being equally informed and as such better able to participate in politics; which is good for democracy (Ahern et al., 1981; Boyd et al., 2011; Buijzen et al., 2017; Cacciatore et al., 2014; Shehata & Strömbäck, 2018).

As expected, more general news media use was positively related to more knowledge about refugees. However, we did not find support for the hypothesis that knowledge would increase over time, due to the lower SES groups catching up. This could be because they didn't need to catch up. Especially when looking at the lack of correlation between household income and news media use found previously, this seems a possible hypothesis. However, it would require further research to ascertain the truth of the matter.

The interaction between age and general news media exposure showed that the older a child is, the less the exposure to news media comes into play in predicting knowledge about refugees. This could be due to more education on the topic at school, using media differently, remembering more information after a first hearing or viewing at an older age or other factors not researched here. The results also showed that the kind of broadcaster had an influence on the knowledge index. The public broadcasters had a positive relation with the knowledge index. What was unexpected here was that children's television wasn't significantly related to the knowledge index, as literature (and common sense) seemed to indicate they would understand these shows better (Buijzen et al., 2017; De Cock, 2012).

The conclusion that can be drawn from the above is the following: news media helped inform German children about the refugee crisis and more use is related to more knowledge, though this lessens with age. This means that German children seem to gain knowledge from news, therefore in the future, as adults, they will probably have the necessary skills to interpret and gain relevant information from news. As such they will have the possibility to be active members of society. It thusly seems likely they will be able to fairly participate in politics, as no differences were found based on SES.

### Limitations and Indications for Further Research

There are some limitations to the results found in this research paper. For most analyses performed the most glaring limitation was perhaps that of the media measure. While not unusable or bad as such, it could have been better. As de Vreese & Neijens (2016) pointed out media exposure measures are wildly inconsistent in general and it is difficult to create the perfect measure, due to the varied landscape of media these days. The general media exposure measure in this paper, while not ideal, was the only option as it concerned a secondary analysis of already existing data (Donnellan & Lucas, 2013). Overall the measurement worked well enough, but it could be improved upon if certain results were to be re-examined in future research.

The real life exposure to refugees variable was ever so slightly skewed towards the zero end of the scale. Visually the graph still looked like a normal distribution, so it was decided to continue the analysis with it as is. This may have had a slight impact on the results, where this variable was used. In future a broader measure, with more scale points, for exposure to refugees in day to day life might help avoid this issue.

In the final analysis a large amount of cases was excluded (pairwise). This because the household income variable in wave 1 was missing in about 45% of cases. While not ideal to continue as such, it was decided to go ahead anyway. This due to the fact that SES, consisting of income and education of parents, could perhaps be an interesting variable as indicated by the literature. To make sure the variable wasn't destructive to the analysis, the regression was also run without it included. The predictive power remained similar. With regards to education of the father a few more cases were excluded. There were a few cases where the education of the father wasn't known. However, this was in a much lesser degree than household income (less than 1% in both waves respectively). The knowledge index was a good measure. However, it seemed that a few more similar questions between the waves would not have been amiss. It could have possibly offered an even more detailed insight into knowledge regarding refugees among German children.

Despite a few limitations the previously discussed results and data also had a few strengths. They were representative of the German population, as the collection was held to stringent requirements. The dataset was large once merged, with many valuable variables, which are not always easy to obtain. The datasets targeted children, a population group that is often hard to reach. In general the results offered a unique insight into how children learned from news media about the refugee crisis in Germany.

During the writing of this paper and the analysing of the data, many other questions were raised. Due to time constraints and lack of funds these weren't further discussed or analysed in this thesis, however they could prove fertile grounds for future research. Some of the questions raised were: is the adult news understandable for children? Does this influence their experience and/or learning? Are there other factors or mechanisms at play that could explain the lowered attitude towards refugees in German children? Perhaps a general malaise in society was to blame, but perhaps the news reporting shifted, or something else happened? Could compassion fatigue be a mechanism behind this? SES did not seem to be related to the general media exposure/general media use in German children, why is this? Is there perhaps a cultural difference at play here (compared to the countries where other research on this took place)? Is wealth more evenly distributed, or just information?

To conclude: while some measures weren't ideal, due to the nature of secondary analysis, the results found offer insight into the influence news media had on German children during the German refugee crisis, with regards to their knowledge about and attitude towards refugees and several new questions were raised, which could prove interesting for future research.

## References

Ahern, D., Conway, M. M., Feldbaum, E., & Wyckoff, M. L. (1981). The news media in children's political socialization. *Public Opinion Quarterly*, 45(2), 164–178. https://doi.org/10.1086/268648

American Psychological Association. (n.d.). Measuring socioeconomic status and subjective social status. Retrieved December 18, 2017, from http://www.apa.org/pi/ses/resources/class/measuring-

status.aspx

Andra Day. (2016, May 9). Andra Day - Rise Up [Official Music Video] [Inspiration Version] [Video file and lyrics]. *Youtube*. Retrieved from https://youtu.be/lwgr\_IMeEgA

Babyar, H. M., Beidas, R. S., Comer, J. S., Furr, J. M., & Kendall, P. C. (2008). Media use and children's perceptions of societal threat and personal vulnerability. *Journal of Clinical Child & Adolescent Psychology*, *37*(3), 622–630. https://doi.org/10.1080/15374410802148145

Beidas, R. S., Comer, J. S., Furr, J. M., Kendall, P. C., & Weiner, C. L. (2008). Children and terrorism-related news: Training parents in coping and media literacy. *Journal of Consulting and Clinical Psychology*, 76(4), 568–578. https://doi.org/10.1037/0022-006X.76.4.568

Berk, L. E. (2010). *Development through the lifespan* (Fifth). Boston, MA: Pearson.

- Boyd, M. J., Lerner, R. M., Phelps, E., Weiner, M. B., & Zaff, J. F. (2011). The relationship between adolescents' news media use and civic engagement: The indirect effect of interpersonal communication with parents. *Journal of Adolescence*, 34(6), 1167–1179. https://doi.org/10.1016/j.adolescence.2011.07.004
- Brown, F., Herjanic, B., Herjanic, M., & Wheatt, T. (1975). Are children reliable reporters? *Journal of Abnormal Child Psychology*, *3*(1), 41–48.
- Buijzen, M., de Leeuw, R. N. H., Gerritsen, J., & Kleemans, M. (2017). Children's responses to negative news: The effects of constructive reporting in newspaper stories for children.

*Journal of Communication*, 67(5), 781–802. https://doi.org/10.1111/jcom.12324

- Buijzen, M., Walma van der Molen, J. H., & Sondij, P. (2007). Parental mediation of children's emotional responses to a violent news event. *Communication Research*, 34(2), 212–230. https://doi.org/10.1177/0093650206298070
- Cacciatore, M. A., Corley, E. A., & Scheufele, D. A. (2014). Another (methodological) look at knowledge gaps and the internet's potential for closing them. *Public Understanding of Science*, 23(4), 376–394. https://doi.org/10.1177/0963662512447606
- Cameron, G. T., Kinnick, K. N., & Krugman, D. M. (1996). Compassion fatigue: Communication and burnout toward social problems. *Journalism and Mass Communication Quarterly*, 73(3), 687–707.
- Colten, M. E., Link, B. G., Moore, R., Phelan, J., Schwartz, S., Struening, E., & Stueve, A. (1995). Public knowledge, attitudes, and beliefs about homeless people: Evidence for compassion fatigue? *American Journal of Community Psychology*, 23(4), 533–555.
- De Cock, R. (2012). Mediating Flemish children's reactions of fear and sadness to television news and its limitations. *Journal of Children and Media*, 6(4), 485–501. https://doi.org/10.1080/17482798.2012.740414
- De Cock, R., & Hautekiet, E. (2012). Children's news online: website analysis and usability study results. *Journalism & Mass Communication*, 2(12), 1095–1105.
- de Vreese, C. H., & Neijens, P. (2016). Measuring media exposure in a changing communications environment. *Communication Methods and Measures*, *10*(2–3), 69–80. https://doi.org/10.1080/19312458.2016.1150441
- Donnellan, M. B., & Lucas, R. E. (2013). Secondary data analysis. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199934898.013.0028
- Donohue, G. A., Olien, C. N., & Tichenor, P. J. (1970). Mass media flow and differential growth in knowledge. *Public Opinion Quarterly*, *34*(2), 159–170. https://doi.org/10.1086/267786
- Field, A. (2016). Discovering statistics using IBM SPSS Statistics

(4th ed.). London, England: Sage.

- Gerbner, G. (1969). Toward "Cultural Indicators": The analysis of mass mediated public message systems. *AV Communication Review*, *17*(2), 137–148. https://doi.org/10.1007/BF02769102
- Gerke, P., Kelly, M. A., & Warren, R. (2002). Is there enough time on the clock? Parental involvement and mediation of children's television viewing. *Journal of Broadcasting & Electronic Media2*, 46(1), 87–111. https://doi.org/10.1207/s15506878jobem4601

Hassan, E. (2005). Recall bias can be a threat to retrospective and prospective research designs. *The Internet Journal of* 

- Hindman, D. B., & Wei, L. (2011). Does the digital divide matter more? Comparing the effects of new media and old media use on the education-based knowledge gap. *Mass Communication* and Society, 14(2), 216–235. https://doi.org/10.1080/15205431003642707
- Library of Congress. (2016). Refugee law and policy: Germany. Retrieved April 1, 2018, from https://www.loc.gov/law/help/refugee-law/germany.php#Rules
- McCombs, M. E., & Reynolds, A. (2009). How the news shapes our civic agenda. In J. Bryant & M. B. Oliver (Eds.), *Media effects:* Advances in theory and research (Third, pp. 1–16). Abingdon, England: Routledge.
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, *36*(2), 176. https://doi.org/10.1086/267990
- Morgan, M., Shanahan, J., & Signorielli, N. (2009). Growing up with television: Cultivation processes. In J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (Third, pp. 34–49). Abingdon, England: Routledge.
- Nathanson, A. I. (2002). The unintended effects of parental mediation of television on adolescents. *Media Psychology*, 4(3), 207–230. https://doi.org/Doi 10.1207/S1532785xmep0403\_01
- Raphael, K. (1987). Recall bias: A proposal for assessment and control. *International Journal of Epidemiology*, *16*(2), 167–

Epidemiology, 3(2).

170.

- Scheufele, D. A., & Tewksbury, D. (2009). News framing theory and research. In J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (Third, pp. 17–33). Abingdon, England: Routledge.
- Shehata, A., & Strömbäck, J. (2018). Learning political news from social media: Network media logic and current affairs news learning in a high-choice media environment. *Communication Research*, 9365021774935. https://doi.org/10.1177/0093650217749354

| Variable name               | Mean   | SD    | n    |
|-----------------------------|--------|-------|------|
|                             | Wave 1 |       |      |
| Age                         | 12.7   | 4.07  | 741  |
| General Media Exposure      | 1.99   | 1.231 | 741  |
| Exposure to PBS             | 0.28   | 0.45  | 741  |
| Exposure to PC              | 0.17   | 0.375 | 741  |
| Exposure to KT              | 0.09   | 0.291 | 741  |
| Exposure via Parents*       | 0.13   | 0.333 | 741  |
| Exposure via Friends**      | 0.02   | 0.141 | 741  |
| Exposure to Refugees IRL    | 0.67   | 0.885 | 741  |
| Knowledge Index             | 2.55   | 0.559 | 741  |
| Children's Attitude Towards | 3.15   | 0.774 | 741  |
| Refugees                    |        |       |      |
| Parents' Attitude Towards   | 3.04   | 0.832 | 741  |
| Refugees                    |        |       |      |
| Household Income            | 4.69   | 1.144 | 405  |
| Education of Mother         | 1.36   | 0.48  | 741  |
| Education of Father***      | 1.41   | 0.492 | 735  |
|                             | Wave 2 |       |      |
| Age                         | 12.7   | 4.05  | 1448 |
| General Media Exposure      | 1.42   | 0.963 | 1448 |
| Exposure to PBS             | 0.26   | 0.44  | 1448 |
| Exposure to PC              | 0.23   | 0.423 | 1448 |
| Exposure to KT              | 0.14   | 0.334 | 1448 |
| Exposure via Parents*       | 0.12   | 0.32  | 1448 |
| Exposure via Friends**      | 0.01   | 0.117 | 1448 |
| Exposure to Refugees IRL    | 0.70   | 0.864 | 1448 |
| Knowledge Index             | 2.41   | 0.646 | 1448 |
| Children's Attitude Towards | 2.02   | 0.764 | 1448 |
| Refugees                    |        |       |      |
| Parents' Attitude Towards   | 2.13   | 0.800 | 1448 |
| Refugees                    |        |       |      |
| Household Income            | 5.21   | 1.424 | 1448 |
| Education of Mother         | 1.32   | 0.466 | 1448 |
| Education of Father         | 1.37   | 0.483 | 1434 |

TablesTable 1 Variables: Descriptive Statistics

Note: Exposure, unless otherwise specified means exposure to news/news media about refugees. PBS = public broadcasters. PC = private channels. KT = kids television. IRL = in real life. \* In wave 2 a value of zero could also mean not mentioned or missing for this variable, 88.4% left this question blank. \*\* In wave 2 a value of zero could mean a blank answer, 98.6% of respondents didn't fill this out. \*\*\* The father's education wasn't known in some cases in both waves.

|                                      | Model 1            | Model 2           | Model 3          | Model 4           | Model 5      |
|--------------------------------------|--------------------|-------------------|------------------|-------------------|--------------|
| Block 1: Time of Survey              |                    |                   |                  |                   |              |
| Wave (March=0)                       | -0.072**           | -0.065**          | -0.041           | -0.037            | -0.042       |
| R <sup>2</sup> Change (%)            | 0.5**              |                   |                  |                   |              |
| Block 2: Socio-demographics          |                    |                   |                  |                   |              |
| Gender (male=0)                      |                    | -0.040            | -0.039           | -0.038            | -0.038       |
| Age                                  |                    | 0.122***          | 0.064*           | 0.054             | 0.056        |
| Household Income                     |                    | -0.036            | -0.027           | -0.029            | -0.028       |
| Edu. Mother (1=low, 2=high)          |                    | 0.006             | 0.011            | 0.015             | 0.016        |
| Edu. Father (1=low, 2=high)          |                    | -0.013            | -0.026           | -0.030            | -0.030       |
| R <sup>2</sup> Change (%)            |                    | 1.7***            |                  |                   |              |
| Block 3: Media-exposure              |                    |                   |                  |                   |              |
| General Exposure                     |                    |                   | 0.110***         | 0.119***          | 0.118***     |
| R <sup>2</sup> Change (%)            |                    |                   | 0.8***           |                   |              |
| Block 4: two-way interactions        |                    |                   |                  |                   |              |
| Age x General Exp                    |                    |                   |                  | -0.058*           | -0.056*      |
| Wave x General Exp                   |                    |                   |                  | -0.042            | -0.045       |
| Wave x Age                           |                    |                   |                  | -0.017            | -0.016       |
| R <sup>2</sup> Change (%)            |                    |                   |                  | 0.5*              |              |
| Block 5: three-way interaction       |                    |                   |                  |                   |              |
| Wave x General Exp x Age             |                    |                   |                  |                   | 0.011        |
| R <sup>2</sup> Change (%)            |                    |                   |                  |                   | 0.0          |
| Note: * p < 0.05 ** p < 0.01 *** p < | 0.001. Cell entrie | es are the standa | rdized regressio | on coefficients ( | beta). Edu = |
| education. DV = dependent variable.  |                    |                   |                  |                   |              |
| Total $R^2 = 3.5\%$                  |                    |                   |                  |                   |              |

Table 2 Hierarchical Multiple Regression, DV: Knowledge Index

|                                | Model 1  | Model 2  | Model 3     | Model 4  | Model 5  |
|--------------------------------|----------|----------|-------------|----------|----------|
| Block 1: Time of Survey        |          |          |             |          |          |
| Wave (March=0)                 | -0.072** | -0.072** | -0.045*     | -0.041   | -0.046   |
| R <sup>2</sup> Change (%)      | 0.5**    |          |             |          |          |
| Block 2: Socio-demographics    |          |          |             |          |          |
| Gender (male=0)                |          | -0.038   | -0.038      | -0.037   | -0.037   |
| Age                            |          | 0.117*** | 0.059*      | 0.049    | 0.051    |
| Edu. Mother (1=low, 2=high)    |          | 0.000    | 0.006       | 0.010    | 0.011    |
| Edu. Father (1=low, 2=high)    |          | -0.024   | -0.035      | -0.039   | -0.039   |
| R <sup>2</sup> Change (%)      |          | 1.6***   |             |          |          |
| Block 3: Media-exposure        |          |          |             |          |          |
| General Exposure               |          |          | 0.112***    | 0.123*** | 0.122*** |
| R <sup>2</sup> Change (%)      |          |          | $0.8^{***}$ |          |          |
| Block 4: two-way interactions  |          |          |             |          |          |
| Age x General Exp              |          |          |             | -0.058*  | -0.056*  |
| Wave x General Exp             |          |          |             | -0.041   | -0.044   |
| Wave x Age                     |          |          |             | -0.017   | -0.016   |
| R <sup>2</sup> Change (%)      |          |          |             | 0.5*     |          |
| Block 5: three-way interaction |          |          |             |          |          |
| Wave x General Exp x Age       |          |          |             |          | 0.011    |
| R <sup>2</sup> Change (%)      |          |          |             |          | 0.0      |

Note: \* p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001. Cell entries are the standardized regression coefficients (beta). Edu = education. DV = dependent variable. HI = household income.

Total  $R^2 = 3.4\%$ 

|                             | Model 1 | Model 2  | Model 3 |
|-----------------------------|---------|----------|---------|
| Block 1: Time of Survey     |         |          |         |
| Wave (March=0)              | -0.016  | -0.042   | -0.043  |
| R <sup>2</sup> Change (%)   | 0.0     |          |         |
| Block 2: Socio-demographics |         |          |         |
| Gender (male=0)             |         | -0.058*  | -0.059* |
| Age                         |         | 0.110*** | 0.092** |
| Household Income            |         | -0.057*  | -0.050  |
| Edu. Mother (1=low, 2=high) |         | 0.0      | 0.001   |
| Edu. Father (1=low, 2=high) |         | 0.008    | -0.002  |
| R <sup>2</sup> Change (%)   |         | 1.6***   |         |
| Block 3: Media-exposure     |         |          |         |
| Public Broadcaster          |         |          | 0.078** |
| Private Broadcaster         |         |          | -0.016  |
| Children's Television       |         |          | 0.015   |
| R <sup>2</sup> Change (%)   |         |          | 0.6*    |

| Table 4 Regression: Di | fferent Broadcasters. | DV: KI |
|------------------------|-----------------------|--------|
|------------------------|-----------------------|--------|

Note: \* p < 0.05 \*\* p < 0.01 \*\*\* p < 0.001. Cell entries are the standardized regression coefficients (beta). Edu education. DV = dependent variable. KI = knowledge index. Total  $R^2 = 1.7\%$ 

|      |  | ial Plagiaat Facu   | JI |
|------|--|---|----|
| Test | en certificaat                                     |   | G  |
| Tes  | st en ce   | ertificaat  |    |
|      | Test (klik hier om                                 | de test te beginnen)  |    |
| 0    | Certificaat  | IVEN  |    |
|      | SOCIAL SCIE  | ENCES   |    |
|      | Faculteit Sociale Wete<br>concept 'plagiaat'. Er v | er uitleg over wat er door de KU Leuven en de<br>enschappen precies begrepen wordt onder het<br>werd je uitgelegd waarom het belangrijk is om<br>n op welke manieren je dit kan doen. |    |
|      | Gebruikersnaam                                     | q0453929  |    |
|      | Drimony koy cohruikoy                              | r _426569_1   |    |
|      |  |   |    |
|      | Volledige naam                                     | Emily Lambert<br>Zelfstudietutorial Plagiaat Faculteit Sociale  |    |
|      | Volledige naam<br>Vaknaam                          | Zelfstudietutorial Plagiaat Faculteit Sociale<br>Wetenschappen  |    |
|      | Volledige naam                                     | Zelfstudietutorial Plagiaat Faculteit Sociale   |    |

Annandi