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Heteronormativity and gender norms: socialization across countries, at school, and within the family

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Heteronormativity and Gender Norms

Socialization Across Countries, at School, and Within the Family

Tessa Marjolein van de Rozenberg



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Heteronormativity and Gender Norms

Socialization Across Countries, at School,
and Within the Family

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Chapter 1

General introduction

1.1 Societal norms about gender and sexual orientations

Discussions about people who do not conform to stereotypic gender roles and/or belong to sexual minorities have become more widespread in European societies (Huijnk, 2022). Whereas many Western industrialized countries promote gender equality and aim to increase the inclusion of sexual minorities (ILGA, 2022), gender norms (i.e., 'social norms defining acceptable and appropriate actions for women and men'; Cislighi & Heise, 2020, p. 415) and norms about sexual orientations continue to limit how people live their lives according to their personal preferences, interests, and talents. For example, men who work in occupations that are traditionally perceived as feminine (e.g., nurse, babysitter) experience stigmatization and discrimination (Croft et al., 2015), and parental roles of gay and lesbian couples are still not accepted by the larger public (Sani Dotti & Quaranta, 2020). As a consequence, not adhering to gender stereotypic roles and/or belonging to a sexual minority often comes with a disadvantaged position in society (Heilman, 2012; Huijnk, 2022; Moss-Racusin et al., 2010). Recent reports draw a worrying picture when it comes to violence and discrimination against sexual and gender minorities. In 2022, there seems to be a strong increase in not only numbers but also severity across many countries (ILGA, 2023). How people think about gender roles and sexual minority groups differs considerably across individuals and is related to personal and environmental factors (Calzo & Ward, 2009; Meeusen et al., 2015). Examining how adults and children are socialized with such norms is crucial to understand how individuals' acceptable social roles are limited by their gender and how people from sexual minorities are still marginalized in our society (Croft et al., 2015; Martin, 2009). In the current climate, this may hold in particular for the socialization of attitudes toward men in roles that are traditionally perceived as feminine (Meeussen et al., 2020), and the expression of gay and lesbian orientations and relationships in public (Blair et al., 2022). In this dissertation, I (with co-authors for Chapters 2 to 5) aim to fill some of these research gaps through four studies that focus on different levels of socialization; national circumstances (Chapter 2), secondary education (Chapter 3), and the family (Chapters 4 and 5). In Chapter 6, I will provide a general discussion of these topics.

In this first chapter, I will first untangle the relevant concepts and discuss theories and constructs central to this dissertation. Second, based on queer and feminist literature, I will discuss how gender roles, gender-stereotypic attitudes, and attitudes toward sexual minorities are interrelated. Third, I will describe current theories and evidence on how socializing circumstances and agents at different levels in society can affect individuals' attitudes toward gender roles and sexual minorities. Fourth, I will introduce the focus on the Netherlands for Chapters 3 to 5 regarding the heteronormative socialization of children in this particular context. Lastly, I will provide an outline of this dissertation and reflect on my position as a researcher in discussions around these topics.

1.2 Key concepts and constructs

This dissertation focuses on the socialization of attitudes toward gender roles and gay and lesbian individuals. Gender roles refer to what an individual should do with their life based on their gender, including personality traits, mannerisms, obligations, and cultural expectations (Bornstein, 1998; Nagoshi & Terrell, 2012). In the social sciences, some scholars use the concepts of sex and gender interchangeably, whereas others argue for strictly separating these concepts (Lindqvist et al., 2021). I will first untangle the two and argue how these concepts and the concept of sexual orientation are used in this dissertation. Second, I will discuss theories on heteronormativity and explain how attitudes toward sexual minorities are related to gender (roles) and gender stereotypes (i.e. 'culturally shared assumptions and expectations about sex differences in abilities, personality traits, activities, and roles'; Weinraub et al., 1984, p. 1493).

Untangling sex, gender, and sexual orientation

The overarching term for sexual and gender minorities is LGBTQI+. This acronym stands for lesbian, gay, bisexual, transgender, queer/questioning, intersex, and other variations of sexual attraction and gender (for a full explanation of all included subgroups of this term, we refer to Bamberger & Farrow, 2021). To understand the difference between diversity in gender and sexual orientation, it is important to discuss the meaning of the concepts of sex, gender identity, gender expression, and sexual orientation. The terms sex, gender, and sexual orientation differ in meaning and one does not imply the other (Bamberger & Farrow, 2021; Lindqvist et al., 2021). In Figure 1.1, the genderbread person visualizes these concepts. The term sex often refers to physiological or bodily aspects (e.g., genitalia, chromosomes), whereas gender refers to social aspects (gender identity and gender expression; Connell, 2005; Lindqvist et al., 2021). Gender identity generally refers to the internal perception of a person's gender, which can be a man, woman, another gender, or no gender (Lindqvist et al., 2021). The term cisgender refers to people whose gender identity matches the one that is culturally expected of them based on their assigned sex at birth. Whereas many people today are not (yet) aware of diversity in gender identity, it is important to note that people who do not identify as cisgender (e.g., non-binary, transgender) have existed throughout history (Day, 2020). People's gender expression refers to the external representations of a person's gender through social cues (e.g., clothing, hairstyles, way of speaking, and behavior), and/or bodily features such as those resulting from surgery, or hormone therapy. As the gender expression of an individual may or may not match their gender identification, gender identity should not be assumed from individuals' gender expression and, instead, based on a person's self-report (Lindqvist et al., 2021). As the studies in this dissertation are focused on the social aspects of people's gender and attitudes toward gender roles, we use the terms gender and gender differences in this dissertation, and not sex or sex differences. In our family studies (Chapters 4 and 5) we focus on families

consisting of a father and a mother and two children. During recruiting and data collection, we asked participants to identify with binary gender categories (e.g., 'Are you a boy or a girl?'). We did not ask participants whether they were cis-gendered. In the discussion (Chapter 6) I will discuss the practical reasons for these choices and reflect on the limitations of this selection.

People's sexual orientation is a different personal aspect than their gender identity and can be defined as an individual's description of their own emotional and sexual attraction to others. People's sexual orientation can be gay, lesbian, bisexual, pansexual, or heterosexual (Bamberger & Farrow, 2021). Queer and feminist scholars emphasize that sexual orientation should never be assumed from someone's sexual behavior or relationship partners; it should always be determined by asking individuals to prevent misclassification based on stereotypes and exclusion (Bamberger & Farrow, 2021).

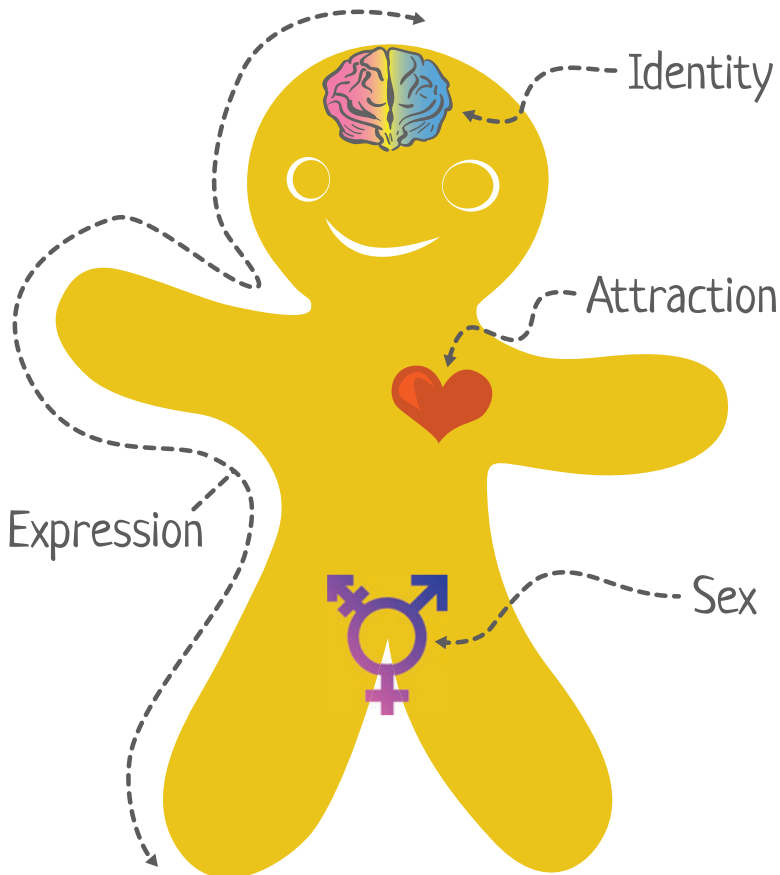


Figure 1.1: The genderbread person by Sam Killerman.

Heteronormativity

Heteronormativity refers to the mundane, everyday way in which heterosexuality is privileged, taken for granted, and perceived as normal, and natural (Martin, 2009). It defines the boundaries of socially acceptable relationships and identities and is the source of the underlying pressure for people to conform to socially accepted gender roles and sexual behavior (Habarth, 2014). In feminist and queer literature, heteronormativity is posited as the underlying construct and key contributor to homophobic attitudes and behavior toward people from the LGBTQI+ community (Habarth, 2014; Mereish & Poteat, 2015), and gender stereotypes (Habarth, 2014). Homophobia is the 'fear, hatred, or discomfort with people who are attracted to members of the same assigned sex or gender' (Bamberger and Farrow, 2021, p. 255). Homophobic and affirmative behavior toward sexual minorities (e.g., voicing support, engaging in advocacy, and countering homophobia; Huic, 2018) can be predicted by individuals' attitudes toward these groups (Mereish & Poteat, 2015; Poteat et al., 2013). An attitude is 'a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor' (Eagly & Chaiken, 2007, p. 597). Negative attitudes toward gay and lesbian individuals are complex and multidimensional (Adolfson et al., 2010). Heteronormativity is also theorized to be the underlying construct of beliefs about gender and gender stereotypes. Heteronormative beliefs do not only assume that there are only two genders but also that men and women are associated with natural roles (masculine or feminine; van Toorn et al., 2020). Gender stereotypes are theorized to be used by individuals to categorize and simplify what they see and predict what other people will do (Hentschel et al., 2019). In doing so, gender stereotypes can lead to inaccurate judgments and expectations from other people or oneself, that do not reflect reality (Hentschel et al., 2019). Gender stereotypes can be explicit or implicit. While explicit stereotypes are conscious, deliberately articulated opinions about men and women, implicit stereotypes usually function outside of conscious awareness (Endendijk et al., 2013; Rudman, 2004). Most stereotypes are subtle and implicit (Nosek et al., 2002). Gender stereotypes can affect a person's interests, self-views, and behaviors. Further, stereotypes can influence people's beliefs about and behavior toward other people (Bem, 1981). As such, gender stereotypes can form barriers for people who want to fulfill counter-stereotypic occupations and roles in society. This holds for all genders (Budge et al., 2010; Croft et al., 2015; Sinclair & Carlson, 2013).

Over the last decades, there has been a focus on studying the general acceptance of gay and lesbian individuals and equal rights for these groups (Adolfson et al., 2010; Takács & Szalma, 2016), and on gender stereotypic attitudes toward women in traditionally masculine roles (Croft et al., 2015). Research on the socialization of individuals' attitudes towards sexual minorities and gender roles is more limited when it comes to attitudes that go beyond merely accepting gay or lesbian identities and the general equality of men and women. Compared to these general attitudes, there is, for instance, less research on attitudes about the expression of same-sex relationships

in the public social sphere, attitudes toward gay or lesbian family members (Takács & Szalma, 2016; Ying et al., 2022), and on gender-stereotypic attitudes toward men fulfilling roles that are traditionally perceived as feminine (Croft et al., 2015; Olsen et al., 2022). As people's attitudes towards these groups are visible and tangible to the individuals who belong to them (Blair et al., 2022; Feinstein et al., 2014; Kalokerinos et al., 2017), examining what socializing factors contribute to these attitudes can add to our understanding of the persistent marginalization of these groups.

Although I previously discussed why gender identity and sexual orientation are two different personal aspects, normative ideas about gender and sexuality do not exist separately from each other, as these ideas are intertwined (Marchia & Sommer, 2019). Normative ideas about heterosexual behavior and relationships always consist of fixed expectations of the gender binary: man or woman (Habarth, 2014). Further, negative attitudes and behaviors toward sexual minorities are theorized to be related to gender roles. For example, homophobic attitudes are theorized to be part of toxic masculinity (i.e., cultural norms about masculinity that can harm men themselves, women, and society). Other classic examples of toxic masculinity are notions that men should have a strong need to dominate others, readiness to use violence, and are incapable of nurturing (Kupers, 2005). In line with this theory, a recent meta-analysis showed that compared to heterosexual women, heterosexual men generally hold more negative attitudes toward gay and lesbian individuals (especially gay men) and civil gay rights (Kite et al., 2021). In addition, they were, compared to heterosexual women, more likely to engage in anti-gay behavior, endorse gay stereotypes, and want to avoid gay men. Heterosexual women, on the other hand, reported a stronger desire to avoid lesbian women than heterosexual men did. Gender differences in anti-gay prejudice were partly mediated by gender differences in beliefs about gender roles, revealing that indeed, attitudes about sexual minorities and gender roles are closely linked (Kite et al., 2021). Further, especially for men, not adhering to rigid gender norms can lead to one's sexual orientation being questioned and/or being stigmatized as effeminate (Kalokerinos et al., 2017). When this happens, the masculine identity and the advantaged position that comes with it can be threatened (Croft et al., 2015). Consequently, many men and boys shy away from activities and roles that are traditionally perceived as feminine and can threaten the masculine identity (Kalokerinos et al., 2017; Sinclair & Carlson, 2013).

This dissertation takes the interrelated nature of gender (roles) and attitudes toward sexual minorities into account by examining to what extent national circumstances are related differently to attitudes of men and women toward equal adoption rights for same-sex couples (Chapter 2), examining attitudes toward gay men and lesbian women separately (Chapter 5), and examining the role of gender in parent-child similarities in attitudes and talks about gay and lesbian issues (Chapter 5).

1.3 Socializing influences at different levels of society

Heteronormativity is present at multiple levels in society (e.g., within institutions, families, and individuals (Herz & Johansson, 2015)). To gain a full understanding of how heteronormativity is constructed and heteronormative attitudes are perpetuated, it is crucial to examine socialization across these different levels. According to the socializing agents' theory, individuals' attitudes are influenced by exposure to socializing agents (Durkheim 1897; Ultee et al., 2003). Socializing agents are institutions, groups, or people in which individuals are incorporated that influence individuals' norms, attitudes, and behaviors (Sani Dotti & Quaranta, 2020; Scheepers et al., 2002). Classical examples of these agents demonstrated to be related to gender stereotypes and attitudes toward gay and lesbian individuals are the family, religious institutions, and the educational system (Jaspers et al., 2008; Mesman & Groeneveld, 2018; Scheepers et al., 2002; van der Linden et al., 2015). The social integration theory by Durkheim (1897; Ultee et al., 2003) states that the attitudes of individuals are not only affected by socializing agents to which individuals are exposed (yes or no) but also to what extent they are exposed to these socializing agents. When individuals are exposed more often or for a longer period to certain socializing agents, they are more likely to be influenced and to form attitudes according to these socializing agents (Ultee et al., 2003). According to the cohort theory of Inglehart (1977; 1990) and social learning theories, individuals are especially prone to the social and cultural context during their formative years (i.e., during adolescence and young adulthood, Inglehart 1977; 1990), in particular by people who are similar to them in terms of gender (Endendijk et al., 2018).

Social learning theories can shed light on how children process and internalize norms about gender and sexual orientation. According to these theories, children can be perceived as gender detectives (Martin, 2004). They actively search for cues about gender to make sense of the world around them (e.g., who should or should not do particular activities, why boys and girls are different, and who falls in love with whom (Martin & Ruble, 2004; Martin 2009). Children observe and hear these gender cues at different places and from different socializing agents (e.g., within the family, at school, from peers, and the media (Calzo & Ward, 2009). Gender schema theory (Bem, 1981, 1983) sheds light on how gender stereotypes are processed by children in gender schemas, i.e., cognitive structures containing gender-related information based on cultural norms that influence children's attitudes, behavior, and identities (Bem, 1981, 1983). When children repeatedly receive the message that a certain trait, interest, behavior, activity, or profession is often ascribed to women, they will categorize it in their gender schemas as feminine (Bem, 1981, 1983). Subsequently, these gender schemas influence children's perceptions of the world and their attitudes, identity, and eventually behavior and future possible selves (Bem, 1981, 1983; Ramaci et al., 2017).

In this dissertation, we examine socializing influences on attitudes toward gender roles and lesbian and gay individuals across three levels of society: national

circumstances (Chapter 2), secondary education (Chapter 3), and the family (Chapters 4 and 5). In the second chapter (national circumstances), we focus on socializing circumstances for adults. In Chapters 3 to 5, we focus on the socialization of adolescents.

National circumstances

According to Mannheim (1936, 1972; Scheepers et al., 2002), in addition to socializing agents in which individuals are incorporated, the larger context (e.g., national political systems, religious characteristics of a nation) can set socializing circumstances that affect individuals' beliefs (Scheepers et al., 2002). For example, laws and policies function as socializing agents affecting people's attitudes because they state what is legally right and what is wrong in society (Abou-Chadi & Finnigan 2019; Van den Akker et al., 2013). These socializing contexts are culture-specific and change over time within countries. Whereas some contexts are expected to change relatively slowly over time (e.g., the religiosity of countries) others are regarded to change more rapidly (e.g., legislation on same-sex relationships; Van den Akker et al., 2013).

Socializing circumstances at the national level can affect groups of people to different extents and at different paces (Scheepers et al., 2002; Sani Dotti, & Quaranta, 2020). Non-traditional attitudes are theorized to be firstly accepted by forerunners, and then gradually by the larger population (Sani Dotti & Quaranta, 2020). Indeed, the socializing influences of progressive laws do not affect attitudes toward gay and lesbian individuals of the larger public all at one time, but instead affect a group of forerunners (e.g., highly educated and non-religious people first; Sani Dotti & Quaranta, 2020)

Whereas numerous studies have examined the influence of socializing agents (education, religion) and national circumstances (religiosity, legislation on same-sex relationships) on the general acceptance of gay men and women (Takács & Szalma 2020; Van den Akker et al., 2013), research on the attitudes toward same-sex couples forming a family is still scarce, especially from an international perspective (Sani Dotti & Quaranta 2020; Takács, et al., 2016). Despite being legalized in many Western countries, this family composition is not (fully) accepted by the larger public and therefore remains a sensitive issue (Sani Dotti & Quaranta 2020). Same-sex couples and their children still face discrimination in their everyday lives, harming their economic, emotional, and relational well-being (Levitt et al., 2020; Messina & D'Amore 2018). To decrease discrimination, it is crucial to identify the socialization factors that contribute to the denial of equal adoption rights despite the formal legalization of this type of family in so many countries. Therefore, in Chapter 2 we examined the extent to which stable national circumstances (persistent influence from former regimes in the past) and variable circumstances (legalization of same-sex relationships) are related to rejecting same-sex couples from forming a family. In addition, we examined to what extent progressive laws on same-sex relationships can be a 'buffer' for rejection of equal adoption rights for same-sex couples among two groups that have repeatedly been shown to

hold more negative attitudes toward gay and lesbian individuals and equal adoption rights in Western Industrialized countries: men and older birth cohorts (Bettinsoli et al., 2020; Sani Dotti & Quaranta, 2020).

Socializing influences at school

At school, children learn and develop their intellectual abilities and skills. The theory of the hidden curriculum offers an understanding of the different types of knowledge that children learn at school (Lee, 2014). According to this theory, the curriculum consists of the formal and the hidden curriculum. The formal curriculum recognizes and openly specifies what learners are intended to learn. In contrast, the hidden curriculum contains knowledge that is not (officially) openly intended. Especially the latter part of the curriculum is normative and reinforces dominant beliefs, values, and norms (Giroux & Penna, 1979; Lee, & Mahmoudi-Gahrouei, 2020). This informal knowledge is obtained throughout the environment of the school (e.g., through cultural messages provided by teachers, and peers, and through educational materials; Gouvias & Alexopoulos, 2018; Lee, 2014). The hidden curriculum conveys cultural norms, including heteronormative messages and gender stereotypes (Lee, 2008). Being exposed to gender stereotypic messages at school can be a barrier to the development of counter-gender stereotypic personalities, skills, and abilities (Heyder & Kessels, 2013; Riley, 2014; Smith & Sarkas, 2022). In addition, heteronormative messages at school can induce the belief that heterosexual relationships are the only acceptable relationships and that children from LGBTQI+ communities are not part of our society (Pearson & Wilkinson, 2018).

Next to the gender messages of teachers and peers, characters in educational materials help shape children's gender schemas because these characters invite children to identify with them (Gouvias & Alexopoulos, 2018; Lee, 2014). Studies on gender bias in educational materials mainly focused on (English) language textbooks for primary education (Koster et al., 2020). Less is known about the extent to which these messages are incorporated into language textbooks (other than English) for secondary education with an adolescent population. Yet, early adolescence is a period of development during which children are particularly susceptible to stereotypic messages (Aronson & Good, 2002; Kågesten, 2016). In addition, as the gap in science interest emerges around early adolescence, examining gender stereotypes in early high school textbooks for math is especially relevant (Blue & Gann, 2016; Wonch Hill et al., 2017). Therefore, in Chapter 3, we examined to what extent gender and heteronormative messages are conveyed in Dutch textbooks for the first year of secondary education.

Socializing influences within the family

In addition to school, the family context is crucial for gender development because that is where children's first gender-related experiences are incorporated into their gender schemas (Bem, 1981; Endendijk et al., 2018). Gender schema theory suggests

that children internalize the gender-stereotypic messages their parents implicitly or explicitly communicate to them in various ways (i.e., through role model behavior, explicit and implicit gender talk, and gender-differentiated parenting behavior; Endendijk et al., 2018). Consequently, children with parents who hold more traditional gender-stereotypic attitudes, and are engaged in more traditional gender-stereotypic behavior, are more likely to incorporate similar attitudes and imitate these behaviors than children with parents who hold less traditional stereotypic attitudes and show less gender-stereotypic behavior (Croft et al., 2014). From a young age, children associate and classify certain professions with men and others with women in line with prevailing stereotypes in society (Solbes-Canales et al., 2020; Wilbourn & Knee, 2010). Studies on gender-stereotypic occupational interest and attitudes largely focused on STEM (Science, Technology, Engineering, Math) occupations (Croft et al., 2015). Yet, studies on the reasons why men do not aspire to a career in HEED (Health Care, Early Education, and Domestic) occupations are scarce (Beutel et al., 2019; Meeussen et al., 2020; Olsen et al., 2022). This is unfortunate, as male representation in HEED domains can reduce labor shortage in this field, reduce negative stereotypes about men in these roles, increase flexibility in societal gender norms, and provide varied role models for younger generations (e.g., Croft et al., 2015; Meeussen et al., 2020). Therefore, in Chapter 4 we examined adolescents' stereotypic attitudes towards and interest in HEED occupations in relation to their parents' gender-stereotypic attitudes, role model behavior, and socialization values.

As gender stereotypes and attitudes toward sexual minorities are related, we applied Bem's gender theory to the underlying process of how parents socialize their children with heteronormativity and homophobic attitudes in Chapter 5. Whereas numerous studies on negative attitudes toward these groups have focused on individual characteristics of adolescents and the influence of peers (e.g., religiosity, educational level, and intergroup contact (Santona & Tognasso, 2018; Sevecke et al., 2015), few studies have examined the role of parents in children's development of these attitudes (van der Linden et al., 2015). Yet, the family context is also crucial for the development of attitudes toward minority groups, including sexual minorities (Vollebergh et al., 2001). This process takes place through various heteronormative socialization practices.

Studies on parent-child similarities in attitudes toward sexual minorities focused on general attitudes toward gay/lesbian individuals (Jaspers et al., 2008; van der Linden et al., 2015; Meeusen & Dhont, 2015) rather than attitudes about gay or lesbian expressions in public or having gay or lesbian family members. The latter type of attitudes are known to be less positive and add to the disadvantaged position of sexual minorities (Blair et al., 2022; Feinstein et al., 2014; Huinck, 2022). For example, many people from sexual minorities do not feel free to express intimacy by holding hands in public, and parental acceptance of a child's sexual orientation can be a buffer against the negative health impacts of internalized homophobia (Blair et al., 2022; Feinstein et al., 2014). Parent-child similarities in these homophobic attitudes can show to what extent these

homophobic attitudes are being passed on across generations (Jaspers et al., 2008). In addition, it is important to study implicit heteronormative messages parents provide to their children about gay issues (Martin, 2009). These implicit messages contain important information to children about how parents perceive these issues as normal (Shibley Hyde & Jaffee, 2000; Martin, 2009). For example, when parents repeatedly ask their daughter whether she already has a crush on a boy, this could signal to the child that heterosexual attractions are the only normal and acceptable ones (Martin, 2009). Therefore, in Chapter 5 we examined to what extent the homophobic attitudes of parents are related to their children, and we examined observed parental discomfort with gay or lesbian issues.

1.4 The Dutch context

The Netherlands provides an interesting context for examining gender processes and heteronormativity. This country scores generally high on the Gender Equality Index (third in 2022; EIGE, 2022). Yet, gender segregation in education in the Netherlands is among the highest in Western Europe and the most room for improvement for the Netherlands lies in this domain (EIGE, 2022). Further, gender segregation in occupational domains is clearly visible (EIGE, 2022; Salanauskaite, 2017). In 2019, 81 percent of the care and welfare professions, and 72 percent of pedagogic professions in the Netherlands were fulfilled by women (Van den Brakel et al., 2020). Also, the Netherlands has the highest proportion of women working part-time across the world, there is a relatively large gap in salary between men and women, and the share of female managers is among the very lowest in Europe (CBS, 2022). Therefore, insight into gender role socialization remains relevant in this national context.

In addition, the Netherlands is often referred to as a gay-friendly country and praised for its high acceptance of sexual minorities (Huijnk, 2022). This country was the first in the world to legalize gay marriage in 2000 and was a pioneer when it came to adoption by same-sex couples (Sani Dotti & Quaranta, 2020). Concerning general attitudes toward gay and lesbian individuals the vast majority of Dutch people (i.e., 93%), indeed, hold accepting attitudes towards gay men and lesbian women. However, it is important to note that in the Netherlands even anti-gay violence offenders in the Netherlands insist that they have nothing against gay or lesbian identities and that they are proud of the Dutch tolerance for sexual minorities (Buijs et al., 2021). However, when faced with expressions of it that conflict with what they perceive to be standard gendered and sexual norms, they can engage in all forms of violence (Buijs et al.; 2021). Also among the general population, the acceptance of sexual minorities is more limited than the tolerant Dutch narrative would suggest, especially when it comes to public expressions of same-sex attraction. For example, one in four adults (25%) finds it offensive to see two men kissing in public, and around one in six adults

report finding it offensive to see two women kissing in public. These percentages are clearly higher than when it concerns a man and a woman kissing in public (9%; Huijnk, 2022). Negative attitudes towards sexual minorities also continue to exist in the family domain. One in eight Dutch people (12%) argues that same-sex couples should not have equal adoption rights. Further, almost one in ten people (9%) reports finding it unacceptable if their (adult) child would cohabit with a steady partner of the same sex (Huijnk, 2022). The consequences of this limited acceptance of sexual minorities are visible in society. For example, gay, lesbian, and bisexual individuals are still more likely to experience discrimination and become a victim of verbal and physical violence compared to heterosexual individuals (Huijnk, 2022).

Consequences of this limited acceptance are also prevalent among adolescents from sexual minorities. Gay, lesbian, and bisexual adolescents (aged 11-16), feel unhappy more than three times as often as heterosexual adolescents (Huijnk & van Beusekom, 2021). Although many schools in the Netherlands have adopted policies to ensure equal treatment of sexual minorities, gay, lesbian, and bisexual adolescents are almost twice as likely to be bullied than their heterosexual counterparts. Further, compared to heterosexual adolescents, they feel less accepted by their teachers and are less likely to report that teachers care about them (Huijnk & van Beusekom, 2021). Taking this into account, it should not come as a surprise that adolescents from sexual minorities feel less positive about going to school and skip class more often than heterosexual adolescents (Huijnk & van Beusekom, 2021). Additionally, support from the family in general and specific family members is perceived as lower among lesbian, gay, and bisexual adolescents (Huijnk & van Beusekom, 2021). These findings show that also in the Netherlands, negative attitudes toward sexual minorities are persistent and a lot remains to be accomplished to gain equality and inclusion for these groups.

1.5 Outline of Dissertation

In this dissertation, I examine how individuals are socialized with heteronormativity and gender norms through four studies that focus on national circumstances (Chapter 2), Dutch textbooks (Chapter 3), and Dutch families (Chapters 4 and 5). First, Chapter 2 describes a study on the influence of national circumstances on the rejection of equal adoption rights for same-sex couples. We examined stable country characteristics (e.g., the persistent influence of former regimes), more variable country characteristics (legislation on same-sex relationships), and cross-level interactions with gender and cohort. Secondly, Chapter 3 examines gender stereotypes and heteronormativity in Dutch first-year secondary school textbooks from two core subjects: math and language. This chapter specifically examines the underrepresentation of women and LGBTQ+ characters in these books, and to what extent men and women are portrayed in gender-stereotypic social roles, occupations, and socio-emotional behaviors. Thirdly, Chapter 4

focuses on Dutch adolescents' gender stereotypic attitudes and interest in occupations that are stereotypically perceived as feminine. Specifically, we examined the association between adolescents' gender-stereotypic attitudes toward HEED occupations and their stereotypic interest in HEED careers. Further, we examine adolescents' stereotypic attitudes towards and interest in HEED occupations in relation to their parents' gender-stereotypic attitudes, role model behavior, and socialization values. Fourthly, Chapter 5 focuses on heteronormative socialization in Dutch families. This study analyses to what extent homophobic attitudes about same-sex kissing and having a gay son/lesbian daughter of parents and their children are similar, and to what extent parents show discomfort with coming out stories in interaction with their children. In addition, we examined the role of the gender of the parent, the child, and the target in these parent-child similarities and observed parental discomfort. Lastly, Chapter 6 summarizes the main findings of these studies and discusses future directions for research.

1.6 Positionality

Research on social issues and education is rarely value-free (Holmes, 2020). I want to acknowledge that this dissertation is not separated from my values and beliefs. Taking this into account, I would like to discuss my personal view and aspects of my background that are relevant to this dissertation. These studies were partially motivated by my ambition to contribute to the inclusion of LGBTQI+ individuals and people who do not (want to) conform to rigid gender norms in society. This motivation is based on my personal experiences and upbringing.

Growing up in a family with progressive perspectives on gender roles and diversity in sexual orientation, I noticed from a young age that the messages about these topics and groups I received at school (a Christian primary school in a religious area of the Netherlands) were different than the ones at home. For example, at school, my teacher argued that according to Christian beliefs, women should not be pastors because they are less rational by nature. I remember my mother was furious to hear this and explained to me why in her eyes this was nonsense. Further, sexual and gender minorities were silenced by all teachers at my primary school. These groups and issues like coming-outs were never discussed in the classroom and, consequently, became taboo at school. Even today, signs of limited acceptance in my hometown are visible. For example, a crosswalk in rainbow colors representing the LGBTQI+ community (a long-debated initiative) was recently destroyed (RTVUtrecht, 2022). Moreover, one of my friends who lives in this town still does not feel free to walk hand in hand with her girlfriend.

During my studies at the Central European University in Budapest, I made contact with students from LGBTQI+ communities across the world. Their personal stories of marginalization, discrimination, and exclusion in their home countries had a deep

impact on me and made me aware of my privileged position as a Dutch cisgender White woman. At the same time, the theoretical courses on subtle forms of sexism and heteronormativity opened my eyes to the marginalization of sexual minorities and rigid gender roles that were also persistent in my home country. My interest in (the more subtle forms of) heteronormativity that go beyond merely accepting gender equality and acceptance of the orientations of sexual minorities was induced by these courses. In addition, my studies at this University in Budapest made me more aware of the value of qualitative empirical studies on these specific issues. Therefore, I aimed to integrate qualitative studies into the theoretical frameworks throughout this dissertation. Finally, I learned that as a cisgender woman who has only been in heterosexual relationships, I can not fully understand the disadvantaged position of being in a same-sex relationship. Listening to the experiences of my friends, colleagues, and family members from the lesbian, gay, queer, and bisexual communities taught me how heteronormative messages and homophobia have a persistent influence on their daily lives. This motivated me to contribute to the inclusion of these groups in society.



Chapter 2

Rejection of equal adoption rights for same-sex couples across European countries: Socializing influences on the national level and cross-national interactions

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The majority of the manuscript was written by Tessa van de Rozenberg, who also carried out the analyses. Peer Scheepers contributed significantly to the development of the manuscript by giving detailed feedback on the manuscript multiple times. The study benefitted from the feedback provided by anonymous reviewers.

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We propose to test theoretically driven hypotheses on the rejection of equal adoption rights for same-sex couples with factors at the national, individual, and cross-level interactions. Most recent data from the European Social Survey were used (2018–2019, $n = 40,494$). As expected, equal adoption rights are more strongly rejected in countries that had communist/Nazi/Fascist regimes and have less progressive laws on same-sex relationships. Same-sex marriage has been proven fruitful in predicting less rejection of equal adoption rights among individuals in countries that legalized adoption for same-sex couples. Additionally, we found cross-level interactions for progressive laws with cohort and gender. Progressive laws on same-sex relationships function as a “buffer” for rejection of equal adoption rights, also among progressive (western) countries. Yet this effect seems to hold especially for younger cohorts and women.

2.1 Introduction

Adoption by same-sex couples is now legal in most European countries. Despite being legalized, this family composition is not (fully) accepted by the larger public and therefore remains a sensitive issue (Sani and Quaranta, 2020). Same-sex couples and their children still face discrimination in their everyday lives, harming their economic, emotional, and relational well-being (Levitt et al. 2020; Messina and D'Amore, 2018). These findings highlight that much remains to be accomplished to ensure equal treatment. To decrease discrimination, it is important to investigate which socializing circumstances are related to the rejection of equal adoption rights despite the formal legalization of this type of family in so many countries.

Whereas numerous studies have examined the general acceptance of gay men and women (Adamczyk, 2017; Donaldson, Handren, and Lac 2017; Takács and Szalma, 2020; Van den Akker, Van der Ploeg, and Scheepers, 2013), research on the specific issue of adoption by same-sex parents is still scarce, especially in an international perspective (Sani and Quaranta, 2020; Takács, Szalma, and Bartus, 2016). Recent studies demonstrate that only a select group of “forerunners” accept adoption by same-sex couples, whereas many more reject the legalization of equal treatment of these same-sex couples (Sani and Quaranta, 2020). Furthermore, this rejection varies considerably across European countries (Takács, Szalma, and Bartus, 2016). Additionally, the rejection of equal adoption rights for same-sex couples appears to be part of a broader gender belief system characterized by heteronormative ideas about family formation practices and appropriate social roles for men and women (Takács, Szalma, and Bartus, 2016). This study aims to contribute to previous insights in three ways.

First, based on theories of socializing circumstances, we propose the effects of national historical contexts and progressive laws on the rejection of equal adoption rights for same-sex couples today. Previous studies have repeatedly demonstrated that individuals in postcommunist countries reject gay rights more strongly and hold more negative attitudes toward gay men and lesbians (Hooghe and Meeusen, 2013; Kuyper, Iedema, and Keuzenkamp, 2013; Smith, Son, and Kim, 2014). Yet negative attitudes toward gay men and lesbians have recently been shown to vary across postcommunist countries and between Western welfare regimes (Takács and Szalma, 2020). There is, however, a lacuna in our understanding of how the historical context of western countries has a persistent influence on the rejection of gay rights today. Based on historical and qualitative studies, we pass by the East–West dichotomy and propose and test hypotheses regarding the persistent influences of postcommunist, former Nazi/Fascist, and military regimes on the rejection of equal adoption rights for same-sex couples.

Second, we aim to add to the theoretical understanding of the relationship between (progressive) laws and people’s attitudes by examining how differences in legislation across (progressive) countries are related to rejecting equal adoption rights for same-sex couples, confining their possibilities to live their lives as they wish. Progressive

laws on same-sex relationships have been demonstrated to be negatively related to the rejection of equal adoption rights and the rejection of gay men and lesbians in general (Donaldson, Handren, and Lac, 2017; Hooghe and Meeusen 2013; Takács, Szalma, and Bartus, 2016; Van den Akker, Van der Ploeg, and Scheepers, 2013). Recently, various European countries adopted more progressive laws, including same-sex marriage (Takács and Szalma, 2020). We aim to take these recent changes into account by using the most recent available data on this subject. Further, we examine differences between most progressive countries by testing to what extent individuals are more likely to reject equal adoption rights in countries that legalized adoption for same-sex couples but exclude them from marriage, compared to individuals in countries that legalized adoption and marriage for same-sex couples. Additionally, we aim to examine to what extent progressive laws on gay relationships can moderate the potential effects of former regimes on the rejection of equal adoption rights for gay couples.

Third, we study to what extent the effects of two individual characteristics that repeatedly have been shown to affect attitudes toward equal adoption rights for same-sex parents, namely, cohort (Sani and Quaranta, 2020) and gender of citizens (Bettinsoli, Suppes, and Napier, 2020), can be moderated by progressive laws. A recent study by Sani and Quaranta, (2020) concluded that the young support the adoption of same-sex couples more strongly but only in countries that recognize legal rights toward Lesbian, Gay, Bisexual, Transsexual, and Intersex (LGBTI) people. We apply Inglehart's cohort theory and examine differences across the different birth cohorts, and to what extent legislation on same-sex relationships is less strongly negatively related to older cohorts. Based on gender schema theory, we expect gender effects to be weaker in countries with more progressive laws on same-sex relationships. In other words, we propose these progressive laws function as a "buffer" against the stronger rejection of equal adoption rights by men.

To test our hypotheses, we used high-quality data from the most recent wave of the European Social Survey (Wave 9, 2018). For the analyses, multilevel linear probability regressions were carried out. The three general research questions we will try to answer are: (1) To what extent can rejection of equal adoption rights for same-sex couples be explained by historical circumstances? (2) To what extent does progressive laws moderate relationships of historical circumstances and rejection of equal adoption rights for same-sex couples? (3) To what extent does progressive laws moderate individual characteristics and the rejection of equal adoption rights for same-sex couples?

2.2 Theory and hypotheses

It is generally proposed that, on the individual level, various forms of socialization affect the attitudes of people (Sani and Quaranta, 2020). These assumptions are derived from the theory of socializing agents and the integration theory by (Durkheim, 1897; Ultee,

Arts, and Flap, 2003). According to the first theory, individuals' attitudes are influenced by exposure to "socializing agents." Classical examples of these agents demonstrated to be related to acceptance of gay men and lesbians are religious institutions and the educational system. Whereas exposure to the first may fuel negative attitudes, exposure to the latter may reduce negative attitudes toward gay men and lesbians (Sani and Quaranta, 2020; Van den Akker, Van der Ploeg, and Scheepers, 2013). The social integration theory by Durkheim (1897) states that attitudes of individuals are not only affected by socializing agents to which individuals are exposed but also to what extent they are exposed to these socializing agents. When individuals are exposed more often or for a longer period to socializing agents, they are more likely to be influenced and to form attitudes according to these socializing agents (Ultee, Arts, and Flap, 2003).

The national context can be argued to set socializing contexts for individuals' beliefs and norms as well (Redman, 2018; Scheepers, Te Grotenhuis, and Van Der Slik, 2002; Sani and Quaranta, 2020). These socializing contexts change over time within countries. Whereas some contexts are expected to change relatively slowly over time, others are regarded to change more rapidly (Adamczyk, 2017; Redman, 2018). In this contribution, we first discuss theories and hypotheses concerning relatively stable country characteristics, followed by more variable country characteristics and interactions between these two. Subsequently, we discuss theories and hypotheses on the individual level. Last, we propose cross-level interaction hypotheses.

Stable country characteristic

It has been repeatedly demonstrated that individuals in postcommunist countries hold more negative attitudes toward gay men and lesbians, compared to individuals in countries that did not have communist regimes (Kuyper, Sommer, and Butt 2018; Smith, Son, and Kim 2014; Takács et al., 2016). It should be acknowledged that the condemnations of sexual minorities were not restricted to postcommunist regimes. Within Nazi/Fascist and military regimes, gay men and women were highly stigmatized, criminalized, and punished in large numbers, with the sad height of gay people driven into death by Nazis during World War II. Furthermore, within these regimes, traditional family life was glorified, and distinct, complementary roles for men and women were magnified (Benadusi, 2018; Ebner, 2004; Plant, 2011; Platero, 2007; Spurlin, 2020). For these reasons, we expect that previous exposure to these historical regimes may persist to affect contemporary attitudes toward same-sex couples raising children today. Besides, in countries that were part of one of these regimes (or multiple of them, e.g., East Germany), gay movements had less time to develop (Andersen and Fetner 2008b). Based on these studies, we expect that: H1: Individuals in postcommunist countries will be most likely to reject equal adoption rights for same-sex couples, followed by countries that had military regimes, Nazi/Fascist regimes, and least likely in countries that had "uninterrupted democracies" from 1920 onward.

Variable country characteristics

Concerning more variable country characteristics, cross-national studies have demonstrated that in countries with more progressive laws on gay relationships, individuals are more likely to accept adoption by same-sex couples (Sani and Quaranta, 2020; Takács, Szalma, and Bartus, 2016). It can be theorized that countries' laws function as socializing agents because they state what is legally right and what is wrong (Van den Akker, Van der Ploeg, and Scheepers, 2013). As a result, individuals living in countries with more progressive laws on same-sex relationships are less exposed to anti-gay norms and more likely to come in contact with (openly) gay people. Simultaneously, laws concerning gay relationships can urge policymakers to introduce these legal frameworks to create a more inclusive environment (Redman, 2018; Slenders, Sieben, and Verbakel, 2014). Yet a reverse effect (i.e., public attitudes affecting legislation) can also be theorized (Hooghe and Meeusen, 2013; Redman, 2018). We want to acknowledge here that due to the cross-national design of our study, we cannot disentangle this relationship. Based on theory and previous studies, we expect that: H2: Individuals are more likely to reject equal adoption rights for same-sex couples in countries with less progressive legislation on same-sex relationships.

Previous studies on the rejection of equal adoption rights for same-sex couples have not examined to what extent the differences among countries with the most progressive legislation can predict rejection of equal adoption rights, whereas a recent study showed that the distinction between countries that (merely) legalized registered partnership for gay couples and countries that legalized same-sex marriage was not fruitful in predicting more tolerance in the latter (Redman 2018), we expect the legal availability of same-sex marriage to be fruitful when it comes to predicting rejection of equal adoption rights for same-sex couples. Marriage is seen by many people as the prototype of a committed and stable relationship (Day et al., 2011), which is considered crucial for couples raising children (Costa, Pereira, and Leal, 2019). Stereotypical ideas about gay couples, especially gay men, being more promiscuous and non-committed in relationships could be challenged when marriage is no longer restricted to hetero couples (Pinsof and Haselton, 2017). Based on these theories and empirical results, we expect the following: H3: Individuals are more likely to reject equal adoption rights in countries that legalized adoption but excluded same-sex couples from marriage, compared to individuals in countries that allowed same-sex couples to adopt children and to marry.

Interaction stable and variable country characteristics

In a recent study, general acceptance of gay men and lesbians was shown to be significantly higher among individuals in postcommunist countries with versus without some form of civil partnership for same-sex couples (Takács and Szalma, 2020). The fact that individuals in the first group of countries had been exposed to progressive laws could be theorized to function as a "buffer" toward the persistent negative

influences of postcommunist regimes on attitudes toward gay men and lesbians. To enhance our understanding of how the rejection of equal adoption rights is related to legislation across other former regimes, we examine to what extent progressive laws can moderate the potential positive effect of former regimes on the rejection of equal adoption rights for same-sex couples. Based on this literature and theory, we expect that: H4: The positive effect of communist, military, and Nazi/Fascist regimes on the rejection of equal adoption rights for same-sex couples is weaker among individuals who live in countries that, in the meanwhile, have adopted more progressive laws on same-sex relationships.

Individual characteristics

Concerning individual characteristics, men are generally less likely to accept sexual minorities and equal adoption rights for same-sex couples (Bettinsoli, Suppes, and Napier, 2020; Webb, Chonody, and Kavanagh, 2017). This can be explained by gender schema theory. According to this theory, people are socialized with gender messages communicating appropriate roles for men and women in society. Gender schemas are cognitive structures containing gender-related information based on these cultural norms (Bem 1981, 1983). Holding and expressing negative sentiments toward gay people and endorsing more traditional gender roles are to a stronger extent part of the more rigid gender schemas of men, compared to those of women (Dierckx, Meier, and Motmans, 2017; Kelley and Gruenewald, 2015; O'Connor, Ford, and Banos, 2017). Based on this theory and previous findings, we expect that: H5: Men are more likely to reject equal adoption rights for same-sex couples, compared to women.

Cross-level interaction: Progressive laws and cohort

Older people are more likely to reject adoption by same-sex couples (Sani and Quaranta, 2020; Takács, Szalma, and Bartus, 2016). Recently, younger individuals were demonstrated to support adoption by same-sex couples more strongly, compared to older individuals, but only in countries that are more progressive in terms of LGBTI rights and policies (Sani and Quaranta, 2020). Theories on socialization argue that attitudes are influenced by the social and cultural context during the formative years of individuals (Inglehart 1977, 1990). Over the past 30 years, there have been rapid cultural, legal, and political changes resulting in a more permissive climate when it comes to gay relationships (Andersen and Fetner, 2008a; Takács, Szalma, and Bartus, 2016). Simultaneously, traditional gender norms have decreased in European countries (Knight and Brinton, 2017). Older cohorts have been socialized in periods with a less permissive and more traditional climate, compared to younger cohorts. According to Inglehart's theory, formative years have a strong influence on attitudes (Inglehart 1977, 1990). Therefore, we expect that progressive laws are less strongly related to the rejection of equal adoption rights among older cohorts, compared to younger cohorts. We want

to acknowledge here that due to the cross-sectional design of this study, we cannot disentangle cohort and age effects, as these variables are (nearly) perfectly related. Based on previous research on the influence of progressive laws on the rejection of gay rights and gay men and lesbians in general (Takács and Szalma, 2020) and Inglehart's theory, we expect the following: H6: For older cohorts, progressive laws on same-sex relationships are less strongly negative related to rejection of equal adoption rights, compared to younger cohorts.

Cross-level interaction: Progressive laws and gender

Last, based on gender schema theory and the social integration theory, we expect that progressive laws on gay relationships can moderate the effect of the gender of citizens and rejection of adoption by same-sex couples. According to gender schema theory, gender messages about appropriate roles for men and women are culture-specific and can change over time. The contents of gender schemas are thus dependent on the cultural norms (Bem, 1981, 1983). Men in countries with more progressive laws on gay relationships are more exposed to the gender message that these relationships are acknowledged and protected by law, compared to men in countries that did not or only partly legalize these relationships and type of family composition. Consequently, the gender schema of men in more progressive countries is expected to become less rigid and more similar to women, compared to those of men in less progressive countries. Therefore, we expect that: H7: The gender effect in countries with more progressive laws on gay relationships is weaker, compared to the gender effect in countries with less progressive laws on same-sex relationships

2.3 Data and measurements

This study analyzes the most recent data from the European Social Survey (Wave 9 collected in 2018–2019). The European Social Survey has been conducted every 2 years since 2002 and charts the attitudes, beliefs, and behavior of citizens in a variety of European countries. The European Social Survey provides high-quality material for cross-national research. Samples of the population of each country are representative and selected by strict random probability methods. All stages of sampling, data gathering, and translation of the questionnaires are governed by expert groups. In total, Wave 9 includes 30 countries. For Albania, data from this wave were not available yet and could therefore not be taken into account. We selected respondents older than 24 years old because, from this age on, most individuals have finished their education. After this selection, our data set consists of 29 countries and 42,358 individuals. On the individual level, all respondents with missing values were excluded. Consequently, the final data set for our analyses consists of 40,494 individuals. Descriptive statistics of individual and country characteristics are presented in Tables 2.1 and 2.2.

Table 2.1: Descriptive statistics on the individual level

Continuous variables	M	S.D.	Range
Religious attendance	2.555	1.482	1-7
Self-assessed religiosity	4.631	3.130	0-10
Perceived income	1.949	0.843	1-4
Categorical variables	N	%	
Rejection of equal adoption rights			
No	23,757	58.67	
Yes	16,737	41.33	
Cohorts			
1900-1929	271	.70	
1930-1939	2,419	6.97	
1940-1949	5,942	14.67	
1950-1959	8,007	19.77	
1960-1969	8,116	20.04	
1970-1979	7,187	17.75	
1980-1989	6,340	15.66	
1990-1993	2,212	5.46	
Gender			
Women	21,751	53.71	
Men	18,743	46.29	
Parents			
No	8,896	21.67	
Yes	31,598	78.03	
Education			
Less than lower secondary	3,092	7.64	
Lower secondary	5,976	14.76	
Lower tier upper secondary	6,980	17.24	
Upper-tier upper secondary	8,568	21.16	
Lower advanced vocational	5,272	13.02	
Lower tertiary	4,823	11.91	
Higher tertiary	5,783	14.28	
Religious denomination			
Non-religious	15,888	39.23	
Roman Catholic	13,623	33.64	
Protestant	5,064	12.51	
Other Christian denomination	487	1.20	
Islamic	954	2.36	
Other	323	.80	
Main activity			
Paid work	21,645	53.45	
Unemployed	1,866	4.61	
Non in paid work	4,232	10.45	
Retired	12,279	30.32	
In education	472	1.17	

Table 2.1 continues on next page.

Table 2.1: Continued

Categorical variables	N	%
Marital status		
Married or civil union	22,175	54.76
Divorced or separated	4,727	11.67
Widowed	4,280	10.57
Never married/civil union	9,312	23.00
Cohabitation same sex		
No	39,904	98.54
Yes	590	1.46

Note. Source: ESS 2018. N = 40,494.

Measurements

Rejection of equal adoption rights

We measured rejection of equal adoption rights for same-sex couples with the following Likert item: “Gay male and lesbian couples should have the same rights to adopt children as straight couples.” Answer categories were (1) “strongly agree,” (2) “agree,” (3) “neither agree nor disagree,” (4) “disagree,” and (5) “strongly disagree.” This item was added to the European Social Survey (ESS) module in the ninth wave. We coded answer categories “disagree” and “strongly disagree” as a rejection of adoption by same-sex couples. In total, there were 1988 (4.2 percent) missing values on this item. The proportion of citizens disagreeing or strongly disagreeing with this statement was largest in Lithuania (81.98 percent) and smallest in Iceland (5.39 percent; see Table 2.2). An important advantage of the measurement of the ESS is that gay men and women are explicitly mentioned in this item. This can avoid the potential “gay male” bias, that is, people mainly think about men when encountering the word “gay,” “homosexuality,” or “homosexual” (Kuyper, Sommer, and Butt, 2018).

Contextual level measurements

Based on data from the Polity IV project (2018), we classified regimes as postcommunist, former Nazi/Fascist regimes, or former military regimes. Countries with uninterrupted democracies (or democracies solely interrupted by foreign wars) were the reference category. Some countries have been part of more than one regime (e.g., East Germany). In those cases, we categorized the most recent type of regime (i.e., East Germany is categorized as postcommunist).

To examine progressive laws on same-sex relationships, we used data from ILGA in the year 2018 (ILGA 2019). We used the following categories of progressive laws: (0) “no legalization of same-sex relationships,” (1) “registered partnership legalized,” (2) “second parent and/or joint parental adoption legalized,” (3) “adoption and marriage legalized for same-sex couples.”

Table 2.2: Descriptive statistics

Country	N	Rejection of equal adoption rights	Church attendance	Progressive laws	Former regime
Austria	2,138	30.96	2.61	Reg. Partnership & Adoption	Nazi/Fascist
Belgium	1,485	19.80	2.04	Adoption & Marriage	None
Bulgaria	1,531	64.79	2.72	None	Communist
Switzerland	1,240	30.97	2.30	Reg. Partnership & Adoption	None
Cyprus	670	68.95	3.88	Reg. Partnership	Military
Czechia	1,861	51.05	1.82	Reg. Partnership	Communist
East Germany	346	19.65	1.74	Adoption & Marriage	Communist
West Germany	1,632	23.40	2.30	Adoption & Marriage	Nazi/Fascist
Denmark	1,332	21.40	2.14	Adoption & Marriage	None
Estonia	1,688	60.13	2.16	Reg. Partnership & Adoption	Communist
Spain	1,328	13.25	2.32	Adoption & Marriage	Military
Finland	1,520	30.39	2.23	Adoption & Marriage	None
France	1,739	25.65	2.00	Adoption & Marriage	None
United Kingdom	2,000	19.40	2.14	Adoption & Marriage ^a	None
Croatia	1,487	64.02	3.05	Reg. Partnership	Communist
Hungary	1,279	61.77	2.38	Reg. Partnership	Communist
Ireland	1,874	19.32	3.28	Adoption & Marriage	None
Iceland	723	5.39	2.01	Adoption & Marriage	None
Italy	2,138	56.04	3.25	Reg. Partnership	Nazi/Fascist
Lithuania	1,593	81.98	3.20	None	Communist
Latvia	364	71.15	2.34	None	Communist
Montenegro	1,005	67.56	2.97	None	Communist
Netherlands	1,380	10.72	1.88	Adoption & Marriage	None
Norway	1,149	14.45	2.03	Adoption & Marriage	None
Poland	1,153	76.06	4.04	None	Communist
Portugal	916	34.61	2.96	Adoption & Marriage	Military
Serbia	1,667	77.14	2.94	None	Communist
Sweden	1,344	11.23	2.01	Adoption & Marriage	None
Slovenia	1,091	56.46	2.59	Reg. Partnership & Adoption	Communist
Slovakia	929	70.40	3.52	None	Communist

Note. Source: ESS 2018. N = 40,494.

Individual-level measurements

We created cohorts by categorizing individuals within birth cohorts of 10 years. Within the oldest two cohorts, there were too few individuals to distinguish them as separate cohort groups (two individuals were born between 1900 and 1909, and 27 individuals were born between 1910 and 1919). Therefore, we combined them with the group of individuals born between 1920 and 1929. Consequently, the oldest cohorts include

people born between 1900 and 1930. The youngest cohort included individuals born between 1990 and 1993. There were 221 (0.4 percent) missing values on this variable, which were removed listwise. Gender was coded dichotomously. There were no missings on this variable. Women were the reference category.

Control variables

We controlled for a variety of individual characteristics related to rejection of equal adoption rights for same-sex parents and gay men and lesbians in general in accordance with the existing literature. These are education (Sani and Quaranta, 2020), having children (Takács, Szalma, and Bartus, 2016), religious denomination (Adamczyk, 2017), attendance of religious services (Janssen and Scheepers, 2018), self-assessed religiosity (Van den Akker, Van der Ploeg, and Scheepers, 2013), subjective income (Sani and Quaranta, 2020), employment status and marital status (Redman, 2018). As the ESS does not include questions about the sexual orientation of the respondent, we were not able to include sexual orientation. Yet the ESS does include questions about household composition, including the sex of a partner with whom the respondent is living. In total, 590 (1.46 percent) individuals lived with a partner of the same sex. We controlled for this type of household composition in our analyses. Following previous literature, we controlled for the stable country characteristics of religiosity (Adamczyk, 2017) and length of E.U. membership (Gerhards, 2010; Redman, 2018). For the more variable characteristic, we controlled for gross domestic product (GDP) (Adamczyk, 2017). To measure religiosity on the contextual level, we included the average church attendance per country. Following our theoretical framework, we chose for this measurement of religiosity instead of others (e.g., self-assessed religiosity, proportions of religious individuals). According to Durkheim's socializing agents and integration theory, socializing institutions and the extent to which individuals are exposed to these, as measured, for example, by the level of church attendance, have a crucial effect on attitudes (1897; Ultee, Arts, and Flap, 2003). For a comprehensive explanation of this measurement, we refer to Van den Akker, Van der Ploeg, and Scheepers (2013). To simplify the interpretation, we have reversed the variables so that higher scores indicate more church attendance. Answer categories varied between never (scored as 1) and every day (scored as 7). Poland has the highest average level of church attendance (404) and Czechia has the lowest (182). We standardized average church attendance to simplify interpretation. For determining the length of E.U. membership, we used data from the official website of the European Union (<https://europa.eu.nl>). Within the selection of countries for this study, Iceland, Montenegro, Norway, Serbia, and Switzerland were non-members of the European Union. Croatia is the youngest member of the European Union, namely, since 2013. Belgium, Germany, France, Italy, and the Netherlands are members of the European Union for the longest period, that is, since 1956. Following common practice, we measured economic propensity by GDP per capita (purchased power), based on

current international dollars. Data were retrieved from the World Bank (2018). To make the coefficients from the model more easily interpretable, we divided GDP per capita by 1,000. GDP per capita Purchasing Power Parity (PPP) in 2018 was lowest in Serbia (7,252) and highest in Switzerland (86,388).

Strategies for analyses

To determine whether cohort, religious attendance, self-assessed religiosity, education, and perceived income are linearly related to rejection of equal adoption rights for same-sex couples, we carried out analysis of variance (ANOVA) tests for (deviance from) linearity. The conclusion from these tests was that only education was not linearly related to the rejection of equal adoption rights. The results of these tests are available upon request. To include education in regression analyses, we created dummy variables. As the odds of rejecting equal adoption rights are moderate, we used linear probability and linear ordinary multilevel analyses. The advantage of using linear probability regression analyses is that results are easier to interpret, compared to logistic regression analyses (Huang, 2019). By using multilevel analysis, we take into account that individuals are nested within countries. Random intercept models are applied to take into account possible country differences in the intercept of rejection of equal adoption rights. An empty model shows that the intraclass correlation of rejection is 0.238. This means that around 23.85 percent of the variation in rejection of equal adoption rights for same-sex couples can be attributed to country characteristics.

In Model 1, we included former regimes, under control of religiosity and length of E.U. membership, and individual-level control variables. In Model 2, we tested the main effects of the more variable country characteristic, namely, adopted progressive laws on same-sex relationships under control of GDP per capita. Model 3 includes the individual characteristics of cohort and gender under the control of relevant individual characteristics. In Model 4, cross-level interactions of progressive laws and cohort were added under the control of individual-level variables. Model 5 includes cross-level interaction effects of progressive laws and gender under the control of individual-level variables. Finally, in Model 6, we tested whether both stable and more variable country characteristics hold significance when added simultaneously under the control of GDP per capita. All analyses are performed with the use of IBM SPSS Statistics 26. Results are presented in Table 2.3. We paid attention to multicollinearity in all our models by examining the variance inflation factor (VIF) values. In the model with interaction effects for progressive laws and former regimes, levels of multicollinearity were very high. Therefore, we excluded this model from our analyses. In all other models, multicollinearity was not a problem. We carried out ordinary linear multilevel analyses for all models as post hoc tests to test for congruence. Interpretation of these results led to the same substantial conclusions. Therefore, results of this post hoc test are available as supplementary results on request.

2.4 Results

In Model 1, relationships of more stable county characteristics with the rejection of equal adoption rights for same-sex couples are tested (results are presented in Table 2.3). First, equal adoption rights for gay couples are most strongly rejected by people in postcommunist countries ($b = 0.277$), followed by post-Nazi/Fascist regimes ($b = 0.192$), as compared to “uninterrupted democracies.” Countries that had military regimes did not differ significantly from countries with “uninterrupted democracies.” As a consequence, Hypothesis 1 is partly confirmed. Our control variable religiosity is significant, the effect of length of E.U. membership is not.

Model 2 includes progressive laws under the control of GDP per capita. In line with our expectations, individuals living in countries with more progressive laws on gay relationships reject equal adoption rights for gay couples less strongly. Compared to the reference category (i.e., individuals living in countries that allowed same-sex couples to adopt children and to marry), individuals reject equal adoption rights most strongly in countries that did not legalize any form of same-sex relationship ($b = 0.414$), followed by countries that merely legalized registered partnerships ($b = 0.320$) and countries that legalized registered partnership and adoption for same-sex couples but excluded them from marriage ($b = 0.240$). Based on these results, Hypothesis 2 is confirmed. Moreover, there seems to be strong support for a gradually increasing effect of progressive laws on the rejection of equal adoption rights for same-sex couples, also when it comes to the most progressive countries. In line with Hypothesis 3, individuals reject equal adoption rights more strongly in countries that legalized registered partnership and adoption for same-sex couples but excluded them from marriage, compared to individuals in countries that allowed same-sex couples to adopt and to marry. Our control variable GDP per capita is significant in this model.

In Model 3, cohort and gender are included under the control of a large number of individual control variables. First, men are shown to reject equal adoption rights for same-sex couples significantly more strongly ($b = 0.091$), confirming Hypothesis 5. Second, older cohorts are demonstrated to reject equal adoption rights more strongly. All birth cohorts are demonstrated to reject equal adoption rights significantly more strongly, compared to the reference category (the cohort born 1990–1993). Following previous literature, our control variables for education, having children, religious denomination, church attendance, religious self-assessment, perceived income, and living together with a partner of the same sex are significantly related to rejection of equal adoption rights for same-sex couples.

Model 4 includes cross-level interactions between progressive laws and birth cohorts under the control of individual control variables. As cohorts are linearly related to the rejection of equal adoption rights for same-sex couples, we included the interactions with cohorts continuously. Additionally, since there seems to be a gradual increase in the effect of more progressive laws, we assumed it to be linearly related to

Table 2.3: Individual and Contextual Influences on rejection of equal adoption rights on Rejection of Equal Adoption Rights

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)
<i>Contextual-level characteristics</i>						
Former regimes (ref = uninterrupted democracies)						
Former nazi/fascist regimes	0.192*** (0.05)					-0.051 (0.05)
Former military regimes	-0.008 (0.06)					-0.090 (0.05)
Post-communist regimes	0.277*** (0.04)					-0.022 (0.05)
Progressive Laws on Same-sex Relationships (ref = adoption and marriage)						
None		0.414*** (0.05)				0.284*** (0.07)
Registered partnership		0.320*** (0.04)				0.248*** (0.06)
Registered partnership + Adoption		0.240*** (0.04)				0.217*** (0.05)
Progressive Laws (continuous)				-0.170*** (0.01)	-0.158*** (0.01)	
<i>Individual-level Characteristics</i>						
Cohorts (ref = cohort 1990-1993)						
Cohort 1900-1929			0.207*** (0.03)			
Cohort 1930-1939			0.155*** (0.02)			
Cohort 1940-1949			0.122*** (0.01)			
Cohort 1950-1959			0.085*** (0.01)			
Cohort 1960-1969			0.060*** (0.01)			
Cohort 1970-1979			0.042*** (0.01)			
Cohort 1980-1999			0.023* (0.01)			

Table 2.3 continues on next page.

Table 2.3: Continued

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)
<i>Individual-level Characteristics</i>						
Cohort (continuous)		0.024*** (0.00)		0.024*** (0.00)	0.024*** (0.00)	
Gender (ref = women)			0.091*** (0.00)	0.091*** (0.00)	0.090*** (0.00)	
<i>Cross-level/Interactions</i>						
Cohort X Progressive laws				0.005*** (0.00)		
Men X Progressive laws					0.015*** (0.00)	
<i>Control variables contextual level</i>						
Church attendance	0.064** (0.02)					0.056*** (0.02)
Length of EU membership	-0.001 (0.00)					-0.000 (0.00)
GDP		-0.003***				-0.004*** (0.00)
<i>Control variables Individual level</i>						
Education (ref=tertiary educated)						
Less than lower secondary	0.112*** (0.01)		0.085*** (0.01)	0.085*** (0.01)	0.088*** (0.01)	
Lower secondary	0.079*** (0.01)		0.067*** (0.01)	0.066*** (0.01)	0.067*** (0.01)	
Lower tier upper secondary	0.075*** (0.01)		0.065*** (0.01)	0.063*** (0.01)	0.065*** (0.01)	
Upper tier upper secondary	0.050*** (0.01)		0.047*** (0.01)	0.044*** (0.01)	0.046*** (0.01)	
Lower advanced vocational	0.039*** (0.01)		0.036*** (0.01)	0.035*** (0.01)	0.036*** (0.01)	
Lower tertiary	-0.006*** (0.01)		0.003 (0.01)	-0.002 (0.01)	0.003 (0.01)	
Being a parent (ref = no)	0.019** (0.01)		0.020** (0.01)	0.021*** (0.01)	0.020** (0.01)	
Religious denomination (ref = non-religious)						

Roman Catholic	0.054*** (0.01)	0.050*** (0.01)	0.050*** (0.01)	0.051*** (0.01)
Protestant	0.029*** (0.01)	0.021** (0.01)	0.019* (0.01)	0.022** (0.01)
Eastern Orthodox	0.139*** (0.01)	0.138*** (0.01)	0.136*** (0.01)	0.135*** (0.01)
Other Christian religion	0.123*** (0.02)	0.118*** (0.02)	0.119*** (0.02)	0.119*** (0.02)
Islam	0.213*** (0.02)	0.215*** (0.02)	0.215*** (0.02)	0.214*** (0.02)
Other	0.019 (0.02)	0.015 (0.01)	0.015 (0.02)	0.016 (0.02)
Church attendance	0.022*** (0.00)	0.023*** (0.00)	0.023*** (0.00)	0.023*** (0.00)
Self-assessed religiosity	0.006*** (0.00)	0.008*** (0.00)	0.006*** (0.00)	0.008*** (0.00)
Subjective income	0.017*** (0.00)	0.020*** (0.00)	0.020*** (0.00)	0.020*** (0.00)
Employment status (ref = paid work)				
Unemployed	0.006 (0.01)	0.008 (0.01)	0.005 (0.01)	0.008 (0.01)
Not in paid job	0.001 (0.01)	0.013 (0.01)	0.013 (0.01)	0.014 (0.01)
Retired	0.069*** (0.01)	0.011 (0.01)	0.017** (0.01)	0.016* (0.01)
In education	-0.025 (0.02)	-0.004 (0.02)	0.004 (0.02)	-0.000 (0.02)
Marital status (ref = married)				
Divorced	-0.015* (0.01)	-0.008 (0.01)	-0.010 (0.01)	-0.009 (0.01)
Widowed	-0.014 (0.01)	-0.007 (0.01)	-0.000 (0.01)	-0.004 (0.01)
Never married	-0.037*** (0.01)	-0.019** (0.01)	-0.016* (0.01)	-0.016* (0.01)
Cohabitation partner same-sex (ref = 0)	-0.037* (0.02)	-0.042* (0.02)	-0.040* (0.02)	-0.041* (0.02)
Intercept	0.075 (0.04)	0.357*** (0.05)	0.507*** (0.05)	0.474*** (0.04)
Variance individual level	0.177 (0.00)	0.188 (0.00)	0.175 (0.00)	0.175 (0.00)
Variance country level	0.008 (0.00)	0.004 (0.00)	0.008 (0.01)	0.008 (0.01)
-2Loglikelihood	45001.770	47296.994	44433.709	4376.322
			44375.128	47283.806

Note: Source: ESS 2018 N = 40,494. Standard error in parentheses. *** p < .001, ** p < .01, * p < .05.

the rejection of equal adoption rights. Results demonstrate that the interaction effect is positive and significant ($b = 0.005$). This means that the negative effect of progressive laws on the rejection of equal adoption rights applies less to older cohorts. Therefore, Hypothesis 6 is confirmed.

In Model 5, the interactions between progressive laws and gender are included under the control of individual control variables. In contrast to our expectations, the gender effect is stronger in countries with more progressive laws, compared to countries with less progressive laws on same-sex relationships ($b = 0.015$; see Figure 2.1 for a visualization of this effect). Therefore, Hypothesis 7 is not confirmed by the data. In Model 6, all (main) relationships of country characteristics are added simultaneously. Results show that in this model, the gradual effect of progressive laws on the rejection of equal adoption rights remains significant under the control of the extensive list of other country characteristics. Compared to the reference category (i.e., individuals living in countries that allowed same-sex couples to adopt children and to marry), individuals reject equal adoption rights most strongly in countries that did not legalize any form of same-sex relationship ($b = 0.284$), followed by countries that merely legalized registered partnerships ($b = 0.248$) and countries that legalized registered partnership for same-sex couples but excluded them from marriage ($b = 0.217$). These results underline the power of the gradual effect of progressive laws on the rejection of equal adoption rights for same-sex couples in our final model.

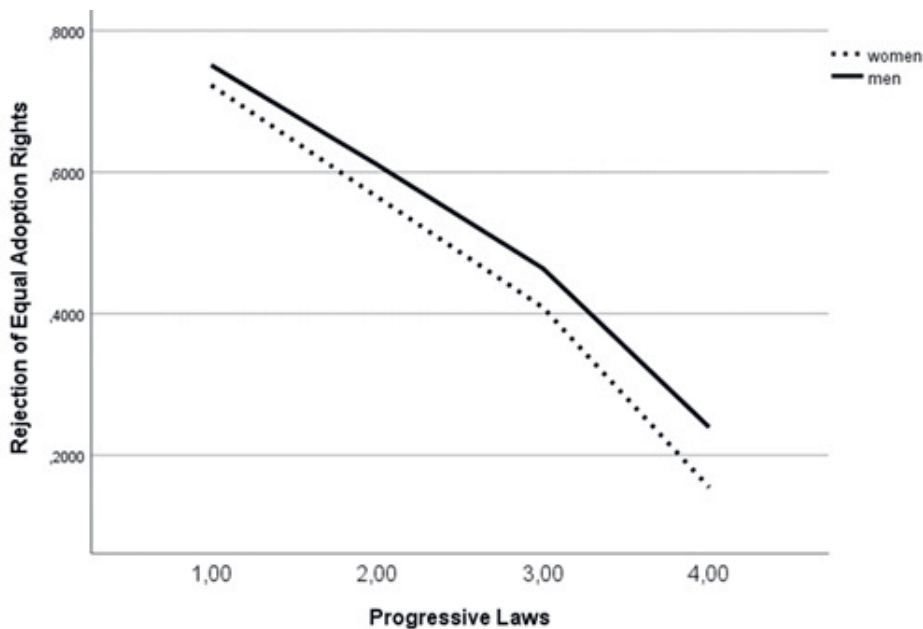


Figure 2.1: Interaction progressive laws and gender.

2.5 Conclusion and discussion

This contribution aimed to gain insights into the influences of socializing circumstances on the rejection of equal adoption rights for same-sex couples across 29 European countries in multiple ways. First of all, this study examined to what extent national historical contexts (still) have persistent influences on the rejection of equal adoption rights for same-sex couples today. Based on historical and qualitative studies, we passed by the East–West dichotomy and hypothesized that individuals reject equal adoption rights more strongly in countries that had Nazi/Fascist, military, or communist regimes, compared to individuals who live in countries with “uninterrupted” democracies. Second, we proposed more elaborate measurements for progressive laws on same-sex relationships and a moderation effect of progressive laws and historical circumstances. Third, we proposed additional innovations by testing interaction hypotheses on the moderated relationship of birth cohort, gender, and progressive laws. Based on socialization theories of Inglehart (1977, 1990) and the socializing agents within integration theory of (Durkheim, 1897; Ultee, Arts, and Flap, 2003), we hypothesized that progressive laws are less strongly related to the rejection of equal adoption rights for same-sex couples among older cohorts, compared to younger ones. Based on gender schema theory, we hypothesized the gender effect (e.g., men reject equal adoption rights more strongly than women) to be weaker in countries with more progressive laws on same-sex relationships, compared to countries with less of these progressive laws. To test our hypotheses, we used high-quality data from the most recent wave of the European Social Survey (Wave 9, 2018). For the analyses, linear probability multilevel analyses were carried out.

Hypotheses on socializing circumstances were mostly supported by our results. Regarding more stable country characteristics, we found that equal adoption rights were not only more strongly rejected by individuals in postcommunist regimes, compared to individuals with “uninterrupted democracies” but also by individuals in former Nazi/Fascist regimes. This finding demonstrates that extending theories on the influences of former regimes to western countries have been proven fruitful. For postmilitary regimes, no such effect was found. Here, it should be stated that in this study, only three countries were included as postmilitary regimes, namely, Spain, Portugal, and Cyprus. Due to little variation, this is problematic for the analyses. Future studies should, if possible at all, include more countries with postmilitary regimes to test this effect more properly.

Concerning more variable country characteristics, we found that progressive laws have a gradual negative effect on the rejection of equal adoption rights for same-sex couples. Also, among most progressive countries, legislation can explain differences in the rejection of equal adoption rights. These rights were less strongly rejected in countries that provided the opportunity for gay couples to adopt children and to marry, compared to countries that allowed adoption for same-sex couples but excluded them from marriage. In contrast to affecting attitudes of the general public toward gay men and lesbians (Redman, 2018), same-sex marriage has proven to be fruitful in predicting

the rejection of equal adoption rights for same-sex couples. This could indicate that when it comes to fulfilling parental roles, acknowledging the legitimacy of same-sex relationships by allowing them to marry becomes even more important.

Following socializing circumstances of Inglehart (1977, 1990) and gender schema theory (Bem 1981, 1983), we found that older birth cohorts and men rejected equal adoption rights for same-sex couples more strongly. We found moderation effects for these individual characteristics and progressive laws on same-sex relationships. Progressive laws seem to be less strongly related to older cohorts. These results also confirm the cohort socialization theories of Inglehart (1977, 1990), which stress the importance of formative years on social-political attitudes. For the moderation effect of gender and progressive laws, we found that the effect of gender on the rejection of equal adoption rights is stronger in countries with more progressive laws on same-sex relationships, compared to countries with less progressive laws on same-sex relationships. Based on gender schema theory (Bem, 1981, 1983), we expected to find the opposite. Our findings could indicate that this issue is nowadays still so sensitive that legislation affects mostly frontrunners: women in countries with more progressive legislation on same-sex relationships. Among individuals in countries with less progressive laws, this gender effect might have not appeared yet. Previous studies on other individual characteristics have shown similar patterns. Non-religious and higher educated individuals are less likely to reject equal adoption rights for same-sex couples only in countries with more progressive legislation on same-sex relationships (Sani and Quaranta, 2020).

Of course, there are some limitations of this study that should be acknowledged. First of all, in our measurement of rejection of equal adoption rights for same-sex couples, we rely on one item only that does not distinguish between male and female targets. This is a constraint, as previous literature has demonstrated that, especially men, hold more negative attitudes toward gay men, compared to lesbians (Bettinsoli, Suppes, and Napier, 2020). Although differences in general attitudes toward gay men and lesbians tend to be small (Kuyper, Sommer, and Butt, 2018), there are, to our knowledge, no large-scale studies on differences between male and female targets when it comes to the specific issue of adoption rights for gay couples. Therefore, future research would benefit from such measurements in cross-national data. Upcoming data from International Social Survey Program on changing family and gender roles could provide the possibilities to examine these differences.

Second, there is an important limitation of this study in the measurement of cohort effects. This study was unable to differentiate between cohort, period, and age effects due to its cross-sectional design. Future studies could overcome this by using longitudinal, preferably panel data. However, data limitations may limit such methodological advances.

Third, we should acknowledge that we cannot disentangle the effects of former regimes from the dominant religion across countries. Previous studies have shown that in countries where the Eastern-Orthodox religion is dominant, individuals show less

tolerance toward gay individuals than Roman Catholic and mixed Christian countries (Hooghe and Meeusen, 2013). As the historical context of former regimes is intertwined and overlapping with the dominant religion (Benadusi, 2018; Plant, 2011; Platerno, 2007; Spurlin, 2020), separating these effects is not possible.

Finally, this study suffers from issues of causality. Future research would benefit from a panel design to investigate individual changes in the rejection of equal adoption rights for same-sex couples. To our knowledge, no such data are available for groups of European countries. Especially regarding the influence of progressive laws on the rejection of equal adoption rights for same-sex couples, this would provide important insights. This study theorized that laws induced by governments can function as socializing agents setting norms on adoption rights for same-sex couples and thereby influencing the opinions of the larger public. However, two-way causality could also exist, in which legislation on same-sex relationships both shapes and reflects levels of rejection toward gay rights or acceptance of gay men and lesbians (Redman, 2018; Slenders, Sieben, and Verbakel, 2014). Additionally, panel designs could answer important follow-up questions from this study regarding gender differences. This would provide insight into differences in the process of acceptance of equal adoption rights for same-sex couples between men and women.

A key policy implication of the present study is to urge policymakers to introduce and use legal institutions that protect same-sex couples from discrimination and make civil union, adoption, and marriage available for same-sex couples. We want to stress that this message is not only directed to policymakers of postcommunist countries, which present the highest levels of rejection of equal adoption rights for same-sex couples, as differences also exist between most progressive (western) European countries. In countries that allowed same-sex couples to adopt children, but excluded them from marriage in 2018, such as Austria, individuals rejected equal adoption rights more strongly, compared to individuals living in countries that allowed same-sex couples to adopt children and to marry, such as the Netherlands. Recent developments, like the legalization of same-sex marriage in Austria in 2019, North Ireland in 2020, and the currently ongoing legalization process of same-sex marriage in Switzerland, seem promising.



Chapter 3

Hidden in plain sight: Gender bias and heteronormativity in Dutch textbooks

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The concept and layout for this study were jointly created by the authors. The majority of the manuscript was written by Tessa van de Rozenberg, who also carried out the analyses. Marleen Groeneveld, Lotte van der Pol, and Judi Mesman contributed significantly to the development of the manuscript by giving detailed feedback on the analyses and manuscript multiple times. The textbooks were coded by a team of 21 students, who were trained and supervised by Tessa van de Rozenberg and Daudi van Veen. Data preparations and additional coding were carried out by all authors. The study on which this chapter is based was presented at SSH-Conference NWO-Synergy, (Utrecht, 2020), the Conference of Dutch Society for Developmental Psychology (Utrecht, 2020), the Kennisfestival Onderwijs Cultuur en Wetenschap (Den Haag, 2021), and the Conference Upsetting Binaries and Hierarchies (Leiden University, 2022). The study benefitted from the comments from participants of these meetings and from anonymous reviewers.

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In this study, we examined gender and sexuality representation in language and math textbooks for Dutch secondary education. We analyzed all male and female characters in 13 language textbooks (N = 7,347) and 12 math textbooks (N = 4,591). Our results confirmed our expectations based on the theory of the hidden curriculum: female characters were underrepresented in all textbooks (40% in language, 44% in math textbooks), but overrepresented in household tasks and EHW (Education, Health, and Welfare) professions. Male characters were overrepresented in occupational roles, especially in STEM (Science, Technology, Engineering, and Math) professions and technical tasks. Further, female characters in language textbooks were overrepresented in parental roles, and male characters were overrepresented among characters with disharmonious traits and behaviors. We found no characters from sexual minorities in any of the textbooks. In conclusion, in line with theories of the hidden curriculum, Dutch textbooks include gender stereotypical messages and are heteronormative. These findings are relevant in light of previous studies demonstrating the negative impact of these biases on children. Publishers and schools that want to be more inclusive are recommended to be more critical in their selection of stories and role models in their books.

3.1 Introduction

Textbooks are a mandatory part of the everyday lives of school children, are seen as authoritative sources of information (Blumberg, 2008), and also socialize children with messages conveying cultural norms, beliefs, and values (Kentli, 2009). These messages also include gender stereotypes that could influence children's beliefs about appropriate roles and behavior for men and women and add to the societal pressure to behave according to gender norms (Evans & Davies, 2000; Lee, 2014). Gender bias in representation, roles, and characteristics in textbooks has been demonstrated in several countries (Blumberg, 2008; Islam & Asadullah, 2018). In the current study, we examine quantitatively Dutch textbooks regarding (1) the extent of male and female representation in terms of 3 indicators of frequency and prominence; (2) the stereotypical representation of male and female characters in terms of 8 indicators of social roles, occupational roles, activities, social-emotional behaviors; (3) the representation of characters from sexual minorities in terms of frequency.

According to Article 28 of the Convention on the Rights of the Child, education should help children to fully develop their personalities, talents, and abilities. School textbooks that convey stereotypical messages about normative gender roles and/or exclude characters from sexual minorities can be at odds with this aim, as they form a hidden obstacle to gender equality (Blumberg, 2008; Evans & Davies, 2000; Ruiz-Cecilia et al., 2021; UNESCO, 2017). The potential socializing force of such obstacles is described by the theory of the hidden curriculum in education that distinguishes the formal curriculum and the hidden curriculum (Kentli, 2009). The first is officially recognized and openly specifies what learners are intended to learn, while the second contains knowledge that is not (officially) openly intended, is always normative, and reinforces dominant beliefs, values, and norms (Giroux & Penna, 1979; Lee & Mahmoudi-Gahrouei, 2020), such as gender messages (Lee, 2014). Examining these messages in the hidden curriculum provides valuable insight into values and power relations in society (Deckman et al., 2018; Kentli, 2009), and how these are reflected in learning materials for children.

Within the hidden curriculum, two types of hiddenness can be distinguished: the intended and the unintended (Lee, 2014). For intended hiddenness, messages are there on purpose, and educators are aware of the cultural messages in the materials, even though they are not openly presented. For example, the exclusion of LGBTQ+ characters can be done purposely to suit the norms and values of the schools that select these books, even though the publishers do not specifically mention that there are no such characters in these books and why. For unintended hiddenness, such messages are not there on purpose, such as when male characters are more often presented in occupational roles compared to female characters (Moser & Hannover, 2014). This is not intentional, but a reflection of the unconscious biases of the writers and illustrators of textbooks. Both types of hidden norms potentially convey gender norms and stereotypes to readers.

Gender stereotypes are ‘culturally shared assumptions and expectations about sex differences in abilities, personality traits, activities, and roles’ (Weinraub et al., 1984, p. 1493). According to gender schema theory, gender stereotypic messages are processed by children in gender schemas, i.e., cognitive structures containing gender-related information based on cultural norms (Bem, 1981, 1983). When children repeatedly receive the message that a certain trait, behavior, or activity, like being good at math or taking a leading role, is often ascribed to boys and men, they will categorize these as masculine in their gender schemas. Subsequently, these gender schemas influence perceptions of the world and children’s own identity (e.g., Boys are good at math. I am a boy, therefore I am likely to be good at math). Adolescents are exposed to various sources of gender messages, including parents, peers, media, and school (Kågsten, 2016). In this paper, we focus on school textbooks.

Gender messages in textbooks can add to children’s gender schemas because characters in textbooks invite children to identify with these characters (Lee, 2014). If male and female characters in textbooks are portrayed in different roles, this gendered information captured in the hidden curriculum becomes part of children’s gender schemas. Then, these messages will be internalized, and affect children’s gender identity and behavior (Evans & Davies, 2000; Lee, 2014). Experimental studies have confirmed that stereotypical portrayal in textbooks, and using masculine generics in math tests affect science performance positively for boys and negatively for girls (Good, 2010; Kricheli-Katz & Regev, 2020). Furthermore, using masculine generics in math tests has been shown to increase the feeling among women that ‘science is for men’ (Kricheli-Katz & Regev, 2020).

Previous studies have demonstrated numerical underrepresentation of female characters in language and math textbooks, both in industrial Western (Biemmi, 2015; Koster, 2020; Lee, 2014; Moser & Hannover, 2014; Táboas-Pais & Rey-Cao, 2012) and low-to-middle-income countries (Barton & Sakwa, 2012; İncikabı & Ulusoy, 2019; Islam & Asadullah, 2018; Ullah et al., 2017). Additionally, male characters are the main character of the story more often than female characters in Italian language textbooks (Biemmi, 2015), and take up more space by being referred to by their names and pronouns more frequently in Hongkong and Pakistani language textbooks (Lee, 2014; Ullah & Skelton, 2013). When female characters are consistently underrepresented, this sends the message that they are less important and interesting (Barton & Sakwa, 2012; Biemmi, 2015). This underrepresentation varies across subjects: in German and Dutch as second language textbooks, the proportions of male and female characters were almost balanced, whereas in math textbooks male characters outnumbered female characters (Koster, 2020; Moser & Hannover, 2014). This might reflect the fact that math is traditionally perceived to be a masculine subject, and language a feminine one (Chaffee et al., 2020; Moser & Hannover, 2014).

In addition to bias in numerical representation, studies have shown that male and female characters in textbooks are portrayed in stereotypical social and occupa-

tional roles (Evans & Davies, 2000; Kerkhoven, 2016). Female characters fulfill parental and household tasks more often than male characters in Italian, Greek, German, and Azad Jammu & Kashmir language textbooks (Biemmi, 2015; Gouvias & Alexopoulos, 2018; Moser & Hannover, 2014; Ullah et al., 2017), and in German and Slovakian math textbooks (Moser & Hannover, 2014; Osadan et al., 2018). Male characters, in contrast, are overrepresented in occupational roles in, amongst others, Italian, Malaysian, Indonesian, Pakistani, Bangladeshi, and German language textbooks (Biemmi, 2015; Islam & Asadullah, 2018; Moser & Hannover, 2014).

Regarding types of occupational roles, male characters are portrayed in a wider range of professions in Greek, Australian, Singaporean, Turkish, and Dutch as second language textbooks (Gouvias & Alexopoulos, 2018; İncikabi & Ulusoy, 2019; Koster, 2020), and in positions of higher social-economic status compared to female characters in Greek and Dutch as second language textbooks (Gouvias & Alexopoulos, 2018; Koster, 2020). Further, male characters are more likely than female characters to occupy jobs in science in Nigerian math textbooks and international online science education material (Dele-Ajayi et al., 2020; Kerkhoven, 2016). In language textbooks, female characters are more often portrayed in professions in education and health care in Italian and Dutch as second language textbooks (Biemmi, 2015; Koster, 2020). A recent study concluded that only female characters are portrayed in gender-typed professions, whereas male characters appear in more varied professions in Dutch as second language textbooks (Koster, 2020). Kerkhoven et al. (2016) did not find gender differences in the frequencies of characters' experimental and science activities (technology, chemistry, astronomy activities) in international online science material for primary schools. To our knowledge, no studies have yet examined to what extent female characters are overrepresented in STEM professions (Science, Technology, Engineering, and Math), and to what extent male characters are underrepresented in EHW professions (Education Health, and, Welfare) in textbooks for young adolescents. Such biased representation in textbooks is important to investigate, as it may be one of the reasons that gender representation in these professional areas is often very stereotypically skewed.

There is also evidence of gender stereotypes in social-emotional character traits and behaviors among characters in U.S. and Italian language textbooks (Biemmi, 2015; Evans & Davies, 2000). Male characters are more often characterized by masculine traits, such as aggressive, argumentative, and competitive, whereas female characters are more often characterized as affectionate, passive, and tender. The distinction between submissive and disharmonious traits and behaviors (Chaplin et al., 2005; Van der Pol et al., 2015) is relevant here. Submissive traits (e.g., sadness and anxiety) are perceived as more feminine, do not threaten interpersonal interactions, and communicate personal vulnerability and the willingness to put someone's care above oneself. Disharmonious emotions (e.g., anger or joy at the expense of others) are perceived as more masculine, and are motivated by achieving one's own goals above those of others, potentially threatening interpersonal relations (Chaplin et al., 2005). This is in line with

the stereotypic expectation in industrialized Western countries for women to be more relationship-oriented than men, and for men to strive for dominance more than women (McIntyre & Edwards, 2009; Van der Pol et al., 2015). Gender differences in disharmonious or submissive traits and behaviors, are particularly interesting to examine, as these are most strongly related to children's problem behaviors. Disharmonious emotions are related to externalizing behaviors in boys/men, and submissive emotions are related to internalizing behaviors in girls/women (Berke et al., 2018; Guo et al., 2019; Johnson et al., 2017). To date, no studies have examined whether these negative social-emotional traits and behaviors of characters in textbooks are gendered.

Both gender and sexual orientation play an important role in people's gender identities (Pakuła et al., 2015). Research on the representation of LGBTQ+ individuals in textbooks is limited, and scholars have called for more research on how LGBTQ+ topics are treated in learning materials for developing young people (Koster, 2020). In previous studies on language textbooks in the U.K., the U.S., and Poland, all romantic feelings and relationships of characters were characterized as heterosexual (Deckman et al., 2018; Gray, 2013; Pakuła et al., 2015). The absence of sexual minorities implies that heterosexuality is the only normal and acceptable sexual orientation (Ruiz-Cecilia et al., 2021), and as such reflects an aspect of the hidden curriculum that can influence learners' expectations and feelings about their own sexual orientations.

Consistent with the theory of the hidden curriculum and the empirical literature, we test the following hypotheses: (H1) male characters are overrepresented in Dutch textbooks, in that they take up more space, are more often the main character of the story than female characters, and are more strongly overrepresented in math textbooks compared to textbooks for the Dutch language; (H2) roles inside the house are more often fulfilled by women, in that they are overrepresented in parental roles, and doing household tasks; (H3) occupational roles and technical tasks are more often embodied by male characters in that they are overrepresented in occupational roles, in occupations with a higher social-economic status, in STEM professions, and among characters doing technical tasks. Among characters with EHW professions, however, we expect female overrepresentation; (H4) social-emotional traits and behaviors are stereotypically attributed to male and female characters, in that males are overrepresented among characters expressing disharmonious traits and behaviors, whereas females are overrepresented among characters showing submissive traits and behaviors; (H5) sexual minorities are underrepresented in math and DFL textbooks.

Although gender messages in textbooks have been examined in several European countries, no such studies have yet been conducted in the Netherlands. Compared to other countries, gender equality in the Netherlands is relatively high. In 2020, it was ranked fifth in the European Union (EIGE, 2020). Regarding gendered segregation of occupational roles, however, the Netherlands score relatively low on gender equality. Segregation in STEM/EHW professions and tertiary education in the Netherlands are among the highest in Europe (EIGE, 2018; Salanauskaite, 2017). Within

this national context, it is of special relevance to examine differences in gender between language and math textbooks, and the extent to which both male and female characters are systematically presented in stereotypic occupational roles and activities. Based on the Dutch national profile, we expect that within this domain, we will find more gender bias compared to those found in other industrialized Western countries. Finally, given the relatively high acceptance of equal rights for sexual minorities in the Netherlands compared to other countries (Janssen & Scheepers, 2019; Sani & Quaranta, 2020), we expect to find less underrepresentation of these groups in Dutch textbooks compared to those in other industrialized Western countries.

We focused on textbooks for young adolescents, because early adolescence is a period of development during which children are particularly susceptible to stereotypic messages (Aronson & Good, 2002; Kågesten, 2016). Because the gap in science interest emerges around early adolescence, examining gender stereotypes in occupational roles and activities and tasks in early high school textbooks for math is especially relevant (Blue & Gann, 2016; Wonch Hill et al., 2017). In contrast to most previous studies, we examined all textbooks for the first year of secondary education for both math and (Dutch) language in a large number of textbooks, allowing us to examine the true extent of gender bias, and decreasing type I and II errors in the analyses (Islam & Asadullah, 2018).

3.2 Method

This study includes all mainstream (hard-copy) textbooks for the subjects math and Dutch language that were used in 2019 for the first year of secondary education in the Netherlands (entry at ca. age 12 years). We did not include textbooks that were specially designed for specific ideologies or religious affiliations, as previous studies demonstrated that these differ considerably from mainstream textbooks (Asadullah et al., 2019). All three relevant publishers (Malmberg, Noordhoff, ThiemeMeulenhoff) participated voluntarily in our study and made their materials freely available.

In total, we included 13 textbooks for language and 12 for math, covering all educational levels for the first grade of secondary education. In Table 3.1, a list of book series per publisher is presented. The total number of included textbooks per publisher varied between 4 and 10. Textbooks from the same publisher for the same level of education were coded together as one book (publishers often divide their books into two: parts A and B). Textbooks were coded from cover to cover: we analyzed all stories, pictures, information paragraphs, and all written exercises (for reading, writing, speaking, and listening). We focused on individual characters whose gender was discernable, which resulted in 7,347 characters for the language textbooks, and 4,591 characters for the math textbooks.

Table 3.1: List of Book Series per Publisher

Publisher	Book series Dutch language	Book series Math
Malmberg	Talent Nederlands voor de onderbouw	Math Plus
Noordhoff	Nieuw Nederlands	- Getal en Ruimte - Moderne Wiskunde
ThiemeMeulenhoff	Nederlands op niveau	

Procedure

Initially, three researchers read through four textbooks, two from each subject, and developed an extensive coding system for gender, sexuality, and ethnic representation and stereotypes (the current paper focuses on gender and sexuality). Twenty social science (under) graduates were intensively trained in the coding system using selected pages from textbooks. A reliability set was constructed by randomly selecting 10% of pages from two randomly selected textbooks, one for each subject. In testing inter-coder reliability or 'intercoder agreeableness,' we followed the guidelines for content analysis proposed by Hayes and Krippendorff (2007). We calculated Krippendorff's alpha to determine intercoder reliability or 'agreement' (Hayes & Krippendorff, 2007). After three training sessions, coding a reliability set, and a round of revision, eight students became reliable coders for the math textbooks, and ten became reliable coders for textbooks from both subjects. Due to longer stories, language textbooks were more complex to code. The textbooks were assigned randomly to the coders reliable for that subject. Questions were discussed and provided feedback to coders on a weekly basis.

Social roles, occupational roles, and socio-emotional traits and behaviors of the characters were (re)coded afterward, based on the activities the coded characters were engaged in, and the traits that were ascribed to them. Household chores and technical tasks were coded by three coders (first, second, and third author). Attributed disharmonious and submissive emotional traits and behaviors were coded by two coders (the first and fourth authors). Professions of characters were recoded into status scores, STEM and EHW professions based on national (CBS, 2014) and international databases (Ganzeboom, 2010).

Codings of concepts

All measured concepts were coded based on text representation and visual representation, except for attributed socio-emotional traits and behaviors. An overview of our coded concepts for text- and visual representation is presented in Table 3.2.

Table 3.2: Overview of Measurements of Concepts

Concepts	Text representation (non-pictorial)	Visual representation (pictures)
Representation		
Gender of the character	Names, pronouns, gender-specific terms	Clothing, hairstyle
Taking up space	Counting names and references to the character	Counting times depicted throughout the book
Main character	Most mentioned character, or from whose perspective the story is told	Center of attention
Social and occupational roles		
Parental roles	References	References from text to picture
Household tasks	Activities, references	Activities
Occupational roles	References, activities	Uniforms, activities
Technical activities	References, activities	Uniforms, activities
Attributed social-emotional traits and behaviors	Emotional state, expressions and feelings, and character traits	
Sexual minority representation	Romantic relationships, thoughts, feelings, identity expressions	Romantic relationships, thoughts, feelings

Gender of the characters

In the case of text, the gender of the character could be inferred from their names, pronouns, or other gender-specific terms (such as occupations with gendered labels in Dutch). For some professions, the Dutch language uses male generics and can refer to either men or women, such as ‘agent’ (police officer). Characters without identifiable gender were not included in the current analyses. In the case of pictures, gender could be inferred from the character’s appearance.

Taking up space

We measured the extent to which characters in the textbooks take up space by counting how often they were mentioned by name and how often they were referred to (e.g., as ‘she’ or ‘his’). In pictures, coders counted the number of times the same character was depicted throughout the book. The number of times characters were referred to varied between 1 and 307. In the example below, the words that were counted to determine how much characters take up space are bolded.

*‘**Anna** went to the cinema with **her** friends. **She** took off **her** coat and walked to the counter to buy **her** ticket. Together with **her** friends, **she** bought a massive box of popcorn.’*
 Space score: 7. In this example, the character Anna scored a 7 on the variable ‘space’. The inter-coder reliability for this variable was high for coders that focused on math

textbooks (Krippendorff's $\alpha = .83$), as well as for coders of Dutch language and math textbooks ($\alpha = .82$).

Main characters

In stories with one character, this character was always coded as the main character. When stories had multiple characters, the character from whose perspective the story is being told or the character most mentioned was coded as the main character. The others were coded as side characters. When multiple characters contributed to the story in equal amounts, they were all coded as main characters. In pictures, characters were coded as the main character when they were the center of attention in comparison to the other people around them. Inter-coder reliability was high for both coders that only coded math textbooks (Krippendorff's $\alpha = .87$), as for those that coded math and Dutch language textbooks (Krippendorff's $\alpha = .86$).

Social and occupational roles

Parental roles included characters described or depicted as parents, grandparents, aunts, uncles, and other adult guardians. Household tasks included all chores in and around the house (e.g., Sam is vacuuming his room, Her mother is cooking dinner). Inter-coder reliability for household tasks was satisfactory ($\alpha = .75$). We coded occupations in STEM ('He works as a physicist') or EHW fields (e.g., She teaches English in high school) based on national codes for occupational segments and domains (CBS, 2014). Occupational roles included all paid jobs. Fantasy positions (e.g., witch, wizard) were excluded. To determine the social-economic status of the occupations of the characters, we used ISEI (International Social and Economic Index) scores (Ganzeboom, 2010). Technical tasks and activities included a variety of activities (e.g., repairing a bike, building a fence). Inter-coder reliability for technical tasks was satisfactory ($\alpha = .75$).

Attribution of socio-emotional traits and behaviors

To examine the attributed socio-emotional traits and behaviors of characters, we included the described emotional state of characters (i.e. She is angry), descriptions of feelings (i.e. He feels insecure), emotional expressions (i.e. She cries), descriptions of socio-emotional behavior (i.e. She threatens to punch her, He flees), and character traits with a clear link to negative submissive or disharmonious emotions (i.e. She is very insecure, He is a rude person). Inter-coder reliability was very high for both submissive traits and behaviors ($\alpha = .93$) and disharmonious traits and behaviors ($\alpha = .83$).

Representation of characters from sexual minorities

Sexual orientation was coded when two people were described or depicted in a romantic relationship (e.g., 'his girlfriend called him' or 'Mr. and Mrs. Smith'), or when one person had romantic thoughts or feelings about another person (e.g., Stan is in love with Fatima). Famous people whose sexual orientation is publicly known were scored

here as well (e.g., Taylor Swift is coded as heterosexual). We want to stress here that we of course cannot be certain that the way famous people identify themselves is in line with what the general public knows about them. As our focus is on adolescents' perception of the representation of sexual minorities, we focus on celebrities' public personas.

Plan of analysis

To test our hypotheses about representation, we carried out binominal tests (which compares proportions of populations with one another) per subject for all textbooks. These results are presented in Table 3.3, and Figures 3.1 and 3.2. Proportions per book to illustrate potential differences and similarities across books are available upon request (results are available upon request). To test our hypotheses regarding gender bias in being the main character of the story, social and occupational roles, and social-emotional traits and behavior, we compared the proportion of female or male characters within these roles with their total representation per subject. For the portrayal of characters in gender-stereotypic occupational domains, we compared their proportion in STEM and EHW domains with their overall proportion in occupational roles. This way, we examine the over- or underrepresentation of male and female characters within these specific roles while accounting for overall under- or overrepresentation. To examine representation of characters from sexual minorities, we compared their proportion with the proportion of people from sexual minorities in society. Estimates of the prevalence of people from sexual minorities vary. We use the estimate of The Netherlands Institute of Social Research, which is between 4 and 6% (van Beusekom & Kuyper 2018). For all proportion tests, we present the test proportion, the result proportion, and the p -value per hypothesis in Table 3.3.

For our two continuous variables (amount of space and social-economic status), we tested for normal distribution and homogeneous variances, separately for language and math textbooks. For taking up space, the absolute skewness (7.186) and kurtosis values (68.329) exceeded the recommended cut-offs for large datasets, that is 2.0 for skewness and 7.0 for kurtosis (Kim, 2013). For social-economic status, we found that the assumption of normal distribution of the sample was not violated (for Dutch language textbooks, skewness = -0.878, kurtosis = -0.180; for math textbooks, skewness = 0.558, kurtosis = -1.200). Yet, the assumption of homogeneity of variance was not satisfied for either subject (for the Dutch language, $F(1487) = 17.604, p < .001$; for math textbooks, $F(584) = 14.013, p < .001$). We, therefore, carried out Man Whitney U tests for both variables. In doing so, we compare the medians of male and female characters instead of the means, because in skewed distributions this statistic is more robust and less affected by any value that is too high or too low. The median refers to the midpoint of the distribution, i.e., the number that separates the scores in the higher half of the sample from the lower half. For reporting effect sizes of differences in social-economic status, we report Cohen's r .

Table 3.3: Overview of Results from Proportion Tests

Hypothesis	Language			Math		
	Test proportion	Result proportion	p-value	Test proportion	Result Proportion	p-value
1. a) Female characters are underrepresented	.50	.40	<.001	.50	.44	<.001
1. b) Female characters are underrepresented among main characters of the story	.40	.39	.347	N.A.	N.A.	N.A.
2. a) Female characters are overrepresented in parental roles	.40	.53	<.001	.44	.36	.081
b) Female characters are overrepresented in household tasks	.40	.53	<.001	.44	.56	<.001
3. a) Female characters are underrepresented in occupational roles	.40	.30	<.001	.44	.24	<.001
b) Female characters are underrepresented in STEM professions	.30	.10	<.001	.24	.14	<.01
c) Female characters are underrepresented in technical tasks	.40	.26	<.05	.44	.29	<.001
d) Female characters are overrepresented in EHW professions	.30	.40	<.05	.44	.45	<.010
4. a) Female characters are underrepresented among characters with disharmonious traits and behaviors	.40	.27	<.001	.50		
b) Female characters are overrepresented among characters expressing submissive emotions	.40	.43	.096	.44		

3.3 Results

First, we examined to what extent female characters are underrepresented across the two subjects. Results are presented in Table 3.1 and visualized in Figures 3.1 and 3.2. In Dutch language textbooks, female characters were significantly underrepresented (40%, $p < .001$). This female underrepresentation was significant in all language textbooks, and the proportion of female characters varied between 34% and 44% ($p < .05$). In math textbooks, female characters were only slightly but significantly underrepresented (44%, $p < .001$). This underrepresentation was significant in 9 out of the 12 math textbooks, and the proportion of female characters varied between 37% and 50% ($p < .05$). If representation had been random, we would expect some books to have more female characters and some more male characters. Yet, female characters were not overrepresented in any of the books, highlighting the consistency of the underrepresentation pattern. In contrast to our expectation, female characters were significantly more strongly underrepresented in Dutch language textbooks than in math textbooks ($p < .001$).

Second, we examined whether female characters take up less space and are underrepresented among the main characters of stories in Dutch language textbooks (see Table 3.3 and Figure 3.1). In contrast to our expectations, the medians for taking up space were identical for male and female characters ($Mdn = 2$). Female characters were also not significantly underrepresented among the main characters of the stories in language textbooks (39%, $p = .347$). This finding was consistent across all 13 language textbooks. Thus, the data partly support our first hypothesis that female characters are underrepresented in textbooks for both subjects.

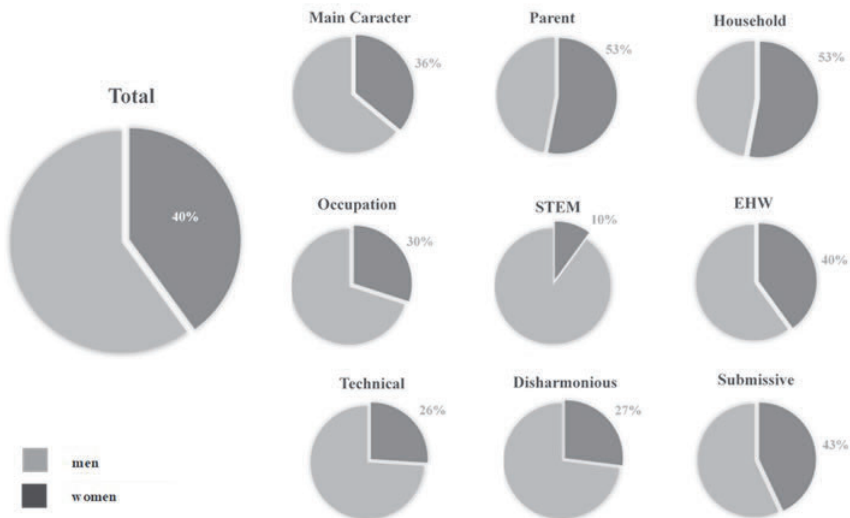


Figure 3.1: Proportion of Female Characters in Specific Roles and Activities in Language Textbooks (compared to overall proportion).

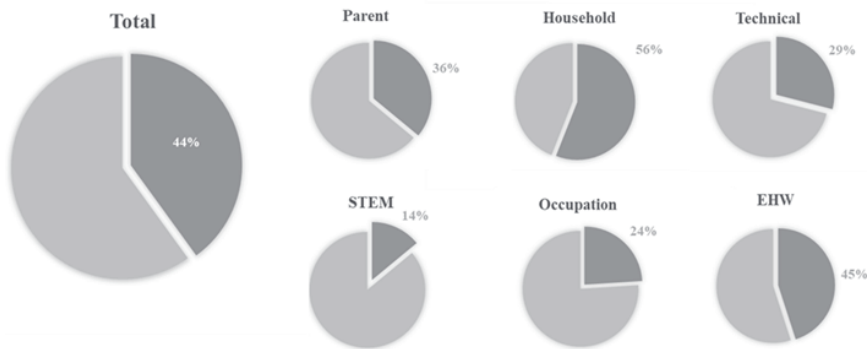


Figure 3.2: Proportion of Female Characters in Specific Roles and Activities In Math Textbooks (compared to overall proportion).

Third, regarding parental roles, we found that female characters were significantly overrepresented in language textbooks (53%, $p < .001$) (see Table 3.3 and Figures 3.1 and 3.2). This pattern was found in all 13 language textbooks. In math textbooks, female characters were not significantly overrepresented in parental roles (36%, $p = .081$). In 8 out of 12 textbooks, the proportion of characters in parental roles was, instead, larger for male characters. Female characters were significantly overrepresented in household tasks in language textbooks (53%, $p < .001$), a pattern found in 9 out of 13 language textbooks. Female characters were overrepresented in household tasks in math textbooks as well (56%, $p < .001$). This pattern was found in 10 out of 12 math textbooks. Thus, hypothesis 2 was confirmed for language textbooks, and partly for math textbooks.

Fourth, we examined whether occupational roles and technical tasks (e.g., Rachid is building a wall) were divided stereotypically across male and female characters (see Table 3.3 and Figures 3.1 and 3.2). Female characters were significantly underrepresented in occupational roles in language textbooks (30%, $p < .001$) (see Table 3.3). This pattern was consistent across all language textbooks. Also in math textbooks, female characters were significantly underrepresented in these roles (24%, $p < .001$). This pattern was consistent across all 12 math textbooks.

In contrast to our expectations, the social-economic status of female professions in language textbooks was significantly higher ($Mdn = 72.83$) compared to those of male characters ($Mdn = 64.44$), $U(N_{female} = 454, N_{male} = 1034) = 198623.5, z = -4.778, p < .001$). This pattern was found in 12 out of 13 textbooks. Yet, Cohen's r indicated that the effect size is very small ($r = .015$), meaning that only 1.5 percent of the variance in social-economic status was accounted for by gender. For math textbooks, however, the social-economic status of female characters was significantly lower ($Mdn = 28.48$) compared to those of male characters ($Mdn = 37.83$), $U(N_{female} = 133, N_{male} = 451) = 24821.5, z = -3.027, p < .001$. This pattern was found in 7 out of 12 math textbooks.

Cohen's r indicated that this effect size was very small ($r = .016$). This means that only 1.6% of the variance in social-economic status was accounted for by gender.

In language textbooks, female characters were significantly underrepresented in STEM occupations (e.g., mathematician, physician) (10%, $p < .001$). This pattern was consistent across all of these 13 textbooks. In 6 of these, female characters in STEM were absent. Female characters were significantly underrepresented in STEM professions in math textbooks as well (14%, $p < .01$) (see Table 3.3 and Figure 3.2). This pattern was found in 11 out of 12 math textbooks. Furthermore, in three math textbooks, none of the STEM professionals were female. Concerning the division of EHW professions (e.g., teacher, babysitting), we found that female characters were significantly overrepresented in these occupations in language textbooks (40%, $p < .05$). A similar pattern was found in 11 out of 13 language textbooks. In math textbooks, too, female characters were significantly overrepresented in EHW professions (45%, $p < .01$) (see Table 3.3 and Figure 3.2). This finding was consistent among 10 out of 12 of these textbooks.

Regarding technical tasks, female characters were significantly underrepresented in language textbooks (26%, $p < .05$) and math textbooks (see Table 3.3 and Figure 3.1 and 3.2). For language, this finding was consistent among 7 out of 13 language textbooks. For math, in 11 out of 13 math textbooks a similar pattern was found. Thus, hypothesis 3 is partly confirmed by the data.

Fifth, we examined whether disharmonious and submissive traits and behaviors are stereotypically divided over male and female characters. Female characters were significantly underrepresented among characters with disharmonious traits and behaviors (27%, $p < .001$) (see Table 3.3 and Figure 3.1). This pattern was found in all 13 language textbooks. Among characters with submissive traits and behaviors, female characters were not significantly overrepresented (43%, $p = .097$). This means that hypothesis 4 is partly supported.

Finally, we examined whether characters from sexual minorities were underrepresented. In all books for both subjects, characters belonging to these groups were absent. As this underrepresentation is evident (0%), testing whether this percentage reflects the percentage of people from sexual minorities in the Dutch society (between 4 and 6%) was redundant. Therefore, hypothesis 5 is confirmed by the data.

3.4 Discussion

This study aimed to add to the literature on bias in gender and sexuality in textbooks by examining to what extent the theory of the hidden curriculum can be confirmed in a relatively gender-equal and sexual minority-accepting country like the Netherlands (EIGE, 2020; Janssen & Scheepers, 2019; Sani & Quaranta, 2020). Additionally, we examined whether social-emotional traits and behaviors are stereotypically attributed to male and female characters in the hidden curriculum. We found that female

characters are underrepresented in textbooks, especially in language textbooks. Yet, when represented, they are equally often the main character of the story and take up the same amount of space. Further, roles inside the house (parental roles, household tasks) are more often allocated to female characters, whereas female characters are underrepresented in occupational roles (especially in STEM), and among characters doing technical tasks, but overrepresented in EHW professions. Female professions have a lower social-economic status than male professions in math textbooks, but this pattern is reversed in language textbooks. Female characters are also underrepresented among characters with disharmonious traits and behaviors, but no gender effects in relation to submissive traits and behaviors. Finally, we found no characters from sexual minorities in any of the textbooks.

Regarding gender bias in representation, our results are consistent with the theory of the hidden curriculum and partly in line with previous studies. As in studies in other countries (Blumberg, 2008; İncikabı & Ulusoy, 2019; Islam & Asadullah, 2018; Lee, 2014), we found that female characters are underrepresented in language and math textbooks. However, in contrast to previous comparative studies on textbooks for elementary school (Moser & Hannover, 2013), we found a stronger female underrepresentation in language, instead of in math textbooks. This discrepancy could indicate that avoiding gender bias in representation for adolescents' language textbooks is more challenging for authors compared to those for young children, potentially due to the inclusion of longer stories in the first. Additionally, in contrast to previous studies (Biemmi, 2015; Lee, 2014; Ullah & Skelton, 2013), we did not find that female characters are less often the main character of the story or take up less space in language textbooks. Apparently, these types of underrepresentation of female characters are not present in Dutch language textbooks.

With respect to role division, we found that, in line with the theory of the hidden curriculum and previous empirical studies (Blumberg, 2008; İncikabı & Ulusoy, 2019; Moser & Hannover, 2014), female characters are overrepresented in household tasks in math and language textbooks. Furthermore, consistent with previous studies (Gouviás & Alexopoulos, 2018; Moser & Hannover, 2013), we found a female overrepresentation in parental roles for language textbooks, but not for math textbooks. This discrepancy might be explained by our focus on textbooks for secondary education, which include more complicated (technical) tasks (e.g., soldering a cube, laying laminate) that authors might unconsciously associate with fathers rather than mothers compared to the less complicated tasks in textbooks for primary education (e.g., adding up cooking time and grocery prices) (Couprie et al., 2020; Ullah et al., 2017).

Consistent with the theory of the hidden curriculum and results of previous studies (Koster, 2020; Moser & Hannover, 2014), we found that male characters are overrepresented in occupational roles. Further, the social-economic status of male characters in math textbooks is higher compared to those of female characters, but the reverse effect was present for language textbooks. We want to stress here that

the effect sizes for occupational status were very small (1.7% of the variance in social-economic status was accounted for by gender of the character). Additionally, in line with previous studies (Dele-Ajayi et al., 2020; Kerkhoven et al., 2016; Koster, 2020), we found that male characters are overrepresented in STEM, whereas female characters are overrepresented in the EHW professions. These findings reflect the relatively high segregation in occupational domains of men and women in the Netherlands (EIGE, 2018). In contrast to Kerkhoven et al. (2016), we found that male characters are overrepresented in technical tasks. This could indicate that the stereotypical message that 'doing technical tasks is for men' is more prevalent in educational material that does not focus on these tasks. It should be acknowledged that, for characters in EHW professions in math textbooks and characters doing technical tasks in language textbooks, we relied on a small number of total characters.

In line with observation studies in families, we found that disharmonious traits and behaviors (e.g., being angry, behaving dominantly) are stereotypically ascribed to male characters (Chaplin et al., 2005; Van der Pol et al., 2015). Applying theories about emotion socialization in the family context to the hidden curriculum in textbooks has thus been proven of added value. In contrast to previous studies (Biemmie, 2015; Evans & Davies, 2000) we did not find female overrepresentation among characters expressing submissive emotions and social-emotional behavior. A cursory review of character descriptions showed that male characters seem to express these submissive behaviors more often in dangerous situations, in which their masculinity is less threatened (e.g., during a fight), compared to female characters, who express submissive emotions and social-emotional behavior outside of these situations (e.g., feeling insecure about themselves). Future qualitative studies should examine these potential differences in more depth.

As in previous studies in other countries (Deckman et al., 2018; Gray, 2013; Pakula et al., 2015), we found that characters from sexual minorities are severely underrepresented, that is, they are entirely absent. This is especially notable given that no less than 11.938 characters were analyzed. The fact that in a country like the Netherlands, often praised for its relatively high acceptance of sexual minorities and rights (Janssen & Scheepers, 2019; Sani & Quaranta, 2020), these minorities are excluded from all textbooks for language and math is striking. However, in the Netherlands, publishing textbooks is subject to market-driven demand, with schools free to decide which books they require for their students. Schools with a strong religious signature are known to be unwilling to expose their students to LGBTQ+ themes (Maussen & Vermeulen, 2015). So publishers who wish to produce materials that are attractive to as many schools as possible to optimize profit, are likely to decide to exclude LGBTQ+ characters from their books.

Limitations and future research directions

There are some limitations of this study that should be acknowledged. First, this study was limited to textbooks, whereas online materials play an increasing role in education (Kerkhoven, 2016). Furthermore, adolescents are exposed to the selection of the study material made by their teachers and the (implicit) messages that their teachers provide during classroom discussions (Gouvias & Alexopoulos, 2018). Yet, as teachers and children still rely on textbooks as the major source for teaching and learning, textbook analyses remain relevant today (Gouvias & Alexopoulos, 2018; İncikabı & Ulusoy, 2019). Second, the quantitative nature of our study precludes in-depth insights into the substance of stereotyping, but does uniquely examine gender bias in domains that were previously only studied qualitatively, like occupational status, occupational domains, expressed emotions, and social-emotional behavior. This revealed that although explicit stereotypes are rare in these textbooks, implicit stereotypical messages are included (e.g., placing the majority of technical tasks with male characters).

Practice implications

Previous experimental studies found that stereotypes in textbooks can hamper individuals' intellectual development, and reduce their feelings of belonging to gender non-conform professions (Good et al., 2010; Kricheli Katz & Regav, 2020). Additionally, excluding characters from sexual minorities in textbooks sends the message that heterosexual relationships are the only 'normal' or acceptable relationships in society (Ruiz-Cecilia et al., 2021). Given the negative impacts of these biases on children, publishers and educators need to be informed about the stereotypical messages and heteronormativity in their textbooks, and critically evaluate them. Discussing the results of this study with the participating publishers made it clear that for some of them, heteronormativity was part of the intentionally included hidden curriculum. These publishers choose to comply with the wish of religious schools to exclude sexual minorities in their textbooks. However, this was not the case for all publishers, who noted that some of their other materials do include LGBTQ+ characters. In contrast, none of the publishers were aware of female underrepresentation or the gender stereotypic patterns in their textbooks, and none found these findings acceptable. These patterns, therefore, appeared to be part of the unintentionally included hidden curriculum. Overall, the results show that gender stereotypic patterns and heteronormativity in Dutch textbooks are hidden in plain sight: they are subtle but structurally present. Publishers and schools that want to be more inclusive and contribute to gender equality, could be more critical in their selection of stories and role models in their books.

3.5 Conclusion

We conclude that, in line with the theory of the hidden curriculum, even adolescents in a relatively gender-equal and sexual minority accepting country like the Netherlands, are exposed to stereotypical gender messages about social roles, occupational roles, social-emotional traits and behaviors, and heteronormativity in textbooks. In order to comply with Article 28 of the Convention on the Rights of the Child stating that education should help children fully develop their personalities, talents, and abilities, publishers and educators should consider increasing female and LGBTQ+ representation and reducing gender-stereotypical patterns. By doing so, the hidden curriculum can be utilized positively to challenge gender stereotypes and provide role models that go beyond restrictive normative boundaries.



Chapter 4

Nurse, teacher, or babysitter: Not a man's job? The role of parents in predicting gender- stereotypic attitudes towards HEED occupations and gender- stereotypic interest in these careers

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The authors jointly developed the idea and design of the study. The majority of the manuscript was written by Tessa van de Rozenberg, who also carried out all the analyses. Lotte van der Pol, Marleen Groeneveld, and Judi Mesman contributed significantly to the development of the manuscript by giving detailed feedback on the analyses and manuscript multiple times. The data collection was carried out by Tessa van de Rozenberg, Stefanie van Esveld, Antoinette Kroes, Astrid Jehle, and Laura Doornkamp together with a team of students. The study on which this chapter is based was presented at the International Conference on Gender Research (Aveiro, 2022), and the Onderwijs Research Days (Hasselt, 2022). The study benefitted from the comments from participants of these meetings and anonymous reviewers.

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Abstract

This study examined adolescents' gender-stereotypic attitudes towards HEED (Health care, Early Education, Domestic) occupations and gender-stereotypic interest in HEED careers, and the role of parental gender-stereotypic attitudes, role model behavior, and socialization values. We used questionnaire data from 501 White Dutch families. Our results showed that adolescents' gender-stereotypic attitudes towards HEED predicted their stereotypic interest in these careers. Further, parental gender-stereotypic attitudes, stereotypical role model behavior, and socializing values of self-expression predicted adolescents' gender-stereotypic attitudes towards HEED. From these parental characteristics, only a stereotypic division of household tasks predicted boys' lower interest in HEED careers. In conclusion, reducing gender-stereotypic attitudes and, for boys, encouraging self-expression seems important in fostering more male representation in HEED occupations and deserves more attention from policymakers, educators, and parents.

4.1 Introduction

Communal roles in *Health Care, Early Education, and the Domestic sphere* (HEED; Croft et al., 2015) are heavily female-dominated (European Commission, 2021; Meeussen et al., 2020). Over the last decades, female representation in STEM professions (i.e., Science, Technology, Engineering, and Math) has increased. Male underrepresentation in HEED occupations, however, has remained remarkably stable (European Commission, 2021; Meeussen et al., 2020). The fact that men still shy away from HEED professions is alarming, as male representation in HEED domains can reduce labor shortage in this field, reduce negative stereotypes about men in these roles, increase flexibility in societal gender norms, and provide varied role models for younger generations (e.g., Meeussen et al., 2020; Olsen et al., 2022). Whereas there has been substantial research on the reasons why women are underrepresented in STEM professions, studies on the reasons why men do not aspire to a career in HEED are scarce (Beutel et al., 2019; Olsen et al., 2022). Studies that did examine gender-typed interest specifically in HEED occupations and majors focused on individual characteristics of children of primary or middle school age and students. These studies show that factors such as perceived gender norms (Van Grootel et al., 2018), gender stereotypes (Olsen et al., 2022), communal values and self-perceptions (Block et al., 2018; Olsen et al., 2022), and perceived belongingness (Tellhed et al., 2017) play a role.

Although often referred to in theoretical frameworks (Croft et al., 2015; Solbes-Canales et al., 2020), few studies specifically focusing on HEED occupations examined the association between stereotypical attitudes towards HEED occupations and gender-stereotypical interest in HEED careers (Olsen et al., 2022). In addition, there is little research on the specific role parents play in developing gender-stereotypic attitudes toward HEED professions, and interest in these careers (Halpern & Perry-Jenkins, 2016; Polevieja & Platt, 2014). This is unfortunate, as parents play a key role in the development of children's interests, attitudes, and identities (Bem, 1981, 1983). In the current study, we examine two themes around HEED. First, we examine the association between adolescents' gender-stereotypic attitudes toward HEED occupations and their stereotypic interest in HEED careers. Second, we examine adolescents' stereotypic attitudes towards and interest in HEED occupations in relation to their parents' gender-stereotypic attitudes, role model behavior, and socialization values.

Rigid gender norms for men

The stable underrepresentation of men in HEED domains compared to women in STEM (Croft et al., 2015; Tellhed et al., 2017) can be partly explained by more rigid gender norms for men compared to women (DiDenato et al., 2013; Solbes-Canales, 2020). Very illustrative of these more rigid norms for men is a study showing that young children in the United States (aged between 8 and 9 years) have more difficulty remembering and processing men in counter-stereotypical professions compared to women

in counter-stereotypic occupations (Wilbourn & Kee, 2010). When asked to repeat a short description of men working in a traditionally feminine profession, the children in this study often changed the sex of the professional or added masculine professions (e.g., 'James the babysitter likes babysitting because *she* likes kids; Henry the nurse is a children's *doctor* too') (Wilbourn & Kee, 2010). Women in counter-stereotypic domains generally move upwards in social status and salary. For men, however, working in a counter-stereotypic profession generally means a decrease in social status and salary (Croft et al., 2015; Torre, 2018). Moreover, manhood is seen as more precarious (i.e., hard to win and easy to lose) than womanhood, and therefore needs to be constantly validated by others and reaffirmed (Kalokerinos et al., 2017; Vandello & Bosson, 2012). If such validation is absent, the masculine identity can be threatened and the advantaged status that comes with it can be lost. One of these threats keeping (heterosexual) men away from HEED professions and roles, is being misclassified as gay or effeminate (Croft et al., 2015; Kalokerinos et al., 2017).

Adolescents' gender-stereotypic attitudes and interest

From a young age, children associate and classify certain professions with men and others with women in line with prevailing stereotypes in society (Olsen et al., 2022; Solbes-Canales et al., 2020). Gender stereotypes are 'culturally shared assumptions and expectations about sex differences in abilities, personality traits, activities, and roles' (Weinraub et al., 1984, p. 1493). Gender schema theory (Bem, 1981, 1983) sheds light on how gender stereotypes are processed by children in gender schemas, i.e., cognitive structures containing gender-related information based on cultural norms that influence children's attitudes, behavior, and identities. When children repeatedly receive the message that a certain trait, behavior, activity, or profession is often ascribed to women, they will categorize it in their gender schemas as feminine. Subsequently, these gender schemas influence children's perceptions of the world and their attitudes (e.g., nurses are often female, therefore nurses should be female), identity (e.g., women are nurses, I am a boy, therefore I will most likely not become a nurse), and eventually behavior and future possible selves (e.g., I am a boy, therefore I will not choose a HEED career; Ramaci et al., 2017). Indeed, exposure to gender identity threats and perceived gender norms of peers are related to the stereotypic occupational interest of adolescents and young adults (Sinclair & Carlson, 2013; Van Grootel et al., 2018). Furthermore, children's gender essentialism (i.e., the belief that males and females are fundamentally different, and gender differences in behavior, interest, and cognitions are innate, stable over time, and exception-free) is related to gender-stereotypical activity preferences (Meyer & Gelman, 2016). Also, gender-stereotypic attitudes are related to gender-stereotypic interest in occupations (Cundiff et al., 2013; Garriott et al., 2017). Except from Olsen et al. (2022), most of these studies focused on interest in STEM occupations, or occupations in general rather than HEED occupations specifically.

Gender socialization within the family

Children are exposed to stereotypic gender messages in different environments, including at home and school (Kollmayer et al., 2018; Mesman & Groeneveld, 2018). Whereas previous studies on gender differences in HEED interests specifically often referred to the influence of parental attitudes and behaviors, few empirically tested these relations (Croft et al., 2014; Polavieja & Platt, 2014). The family context is crucial for gender development because that is where children's first gender-related experiences are incorporated into their gender schemas (Bem, 1981; Endendijk et al., 2018). Gender schema theory suggests that children internalize the gender-stereotypic messages their parents implicitly or explicitly communicate to them in various ways. First, children encounter gender-differentiated parenting behavior in their interaction with their fathers and mothers (i.e., responding differently to the same behavior of boys and girls; Endendijk et al., 2014; Mesman & Groeneveld, 2018). Second, parents may display gendered role model behavior through, for example, the way they balance paid work and caregiving tasks and the division of household tasks gender-stereotypically between couples. Third, parents communicate gender messages by explicit gender talk (e.g., 'nursing is not for boys') and implicit gender talk (e.g., 'He is a nurse, that's odd', communicating that nursing is not a man's job, De Vries, 2022). Consequently, children with parents who hold more gender-stereotypic attitudes, and are engaged in more gender-stereotypic behavior, are more likely to incorporate similar attitudes and imitate these behaviors than children with parents who hold fewer stereotypic attitudes and show less gender-stereotypic behavior (Croft et al., 2014; Crouter et al., 2007). For youngsters' gender role attitudes, a systematic review study (Halimi et al., 2016) concluded that boys and fathers are understudied. This is unfortunate, as fathers also play an important role in the development of gender role attitudes (Davis & Wills, 2010). In addition, boys and fathers generally hold more gender-stereotypic attitudes compared to girls and mothers (Davis & Wills, 2010). Therefore, including boys and fathers in examining parent-child similarities in gender attitudes is crucial (Halimi et al., 2016).

Parental gender-stereotypic attitudes

In line with gender schema theory, mothers' gender-stereotypic attitudes, beliefs, and expectations predict their children's gender-stereotypic attitudes and occupational interests (Chhin et al., 2008; Croft et al., 2014; Fulcher, 2011; Halpern & Perry-Jenkins, 2016; Rainey & Borders, 1997; Rollins & White, 1982; Starrels, 1992). These relations are mediated by perceived efficacy: children of mothers with more gender-stereotypic attitudes about appropriate behavior for boys and girls are also more likely to have higher efficacy in stereotypical domains (e.g., math, science, and sports for boys, reading, arts, music for girls), and to aspire to more traditional career paths compared to children of mothers with less gender-stereotypic attitudes (Chhin et al., 2008; Fulcher, 2011). It should be noted that studies on the association between parental stereotypic attitudes

and children's gender-stereotypic attitudes and interests often relied on measurements that might be outdated (i.e., developed around 30 years ago, Halpern & Perry-Jenkins, 2016). According to gender schema theory, gender messages about appropriate roles for men and women are culture-specific and can change over time (Bem 1981, 1983; Kantas et al., 2022). Therefore, taking contemporary gender-stereotypic attitudes of parents into account is necessary when examining the transmission of gender-stereotypic attitudes from parents to adolescents.

Parental role model behavior

Besides attitudes towards raising children, parental gender-stereotypic attitudes towards occupations might affect adolescents' gender-stereotypic attitudes towards HEED and interest in these careers. Examining this relation, alongside contemporary gender-stereotypic attitudes about raising children, could provide more insight into the ways parents nowadays transmit their gender-stereotypic attitudes about different occupations to their children. Apart from parental gender-stereotypic attitudes, parental stereotypic role model behavior (i.e., a stereotypical division of domestic tasks and job traditionality) predicts children's gender-stereotypic attitudes and occupational interests (Chakraverty & Tai, 2013; Fulcher et al., 2008; Fulcher & Coyle, 2011; Halpern & Perry-Jenkins, 2016; Kvalø et al., 2021; Polavieja & Platt, 2014; Starrels, 1992). Zooming in on HEED, a relatively contra-stereotypical division of household tasks within the family, in which fathers perform an equal number of domestic tasks as mothers or even take up the bigger part, could not only stimulate more equal gender attitudes towards HEED professions in both boys and girls but also stir boys' interest in such professions. Various HEED professions entail domestic characteristics, like childcare and household management (Fulcher & Coyle, 2011; Olsen et al., 2022). Similarly, having a father with a profession in the HEED domain may impede children's stereotypic attitudes towards HEED as well as encourage boys' enthusiasm for the domain (Croft et al., 2015). In contrast, growing up in a family in which the mother takes up the lion's share of daily household tasks and has a profession in HEED rather than the father is likely to stimulate gender-stereotypical attitudes towards and interest in HEED, with a greater preference for this domain in girls but not in boys (Fulcher & Coyle, 2011; Rollins & White, 1982).

Socialization values

In addition, (perceived) pressure from others to conform to gender norms predicts adolescent and young adults' gender-stereotypical attitudes (Halimi et al., 2021) and interest in occupations (Dinella et al., 2014; Van Grootel et al., 2018). Parents who find it important that their children conform to the expectations of society might add to this pressure to conform to gender norms, whereas parents who focus more on self-expression might lower this pressure (Kantas et al., 2022; Stacey & Padavic, 2021). Further, the first group of parents might be more inclined to advise their children to alter their preferences and behavior when facing negative reactions from others than

the latter group (Kantas et al., 2022). In doing so, a group of parents who emphasize self-expression could empower children in developing and maintaining interests that are not accepted by others (Kane, 2006). To date, no empirical study examined to what extent parental socialization values can predict adolescents' gender-stereotypical attitudes toward (HEED) occupations or gender-stereotypic interest in these careers.

Hypotheses

Based on the literature, we expect that: H1) When adolescents hold more gender-stereotypic attitudes towards HEED, their interest in these careers will be more gender-stereotypic (i.e., more interest among girls, less among boys); H2) When parents hold stronger gender-stereotypic attitudes towards occupations and raising children, their adolescents will have a) more gender-stereotypic attitudes towards HEED occupations, and b) more gender-stereotypic interest in these careers (i.e., more interest among girls, less among boys); H3) When parents show more stereotypic role model behavior in the domain of paid and non-paid work, their adolescents will have a) more gender-stereotypic attitudes towards HEED occupations and b) more gender-stereotypic interest in these careers (i.e., more interest among girls, less among boys); H4) When parents value self-expression above inclusion in society, their adolescents will have a) less gender-stereotypic attitudes towards HEED occupations, and b) less gender-stereotypic interest in these careers (i.e., more interest among girls, less among boys).

The present research

Whereas various studies examined adolescents' general gender-stereotypic attitudes toward occupations and occupational aspirations (Cundiff et al., 2013; Garriott et al., 2017), few studies focused specifically on adolescents' gender-stereotypic attitudes towards HEED occupations, and their occupational interest in these careers (Olsen et al., 2022). Studies that specifically focused on the latter generally rely on samples of adults or university students (Croft et al., 2015; Tellhed et al., 2017) or younger children (i.e., children below 10 years old; Halpern & Perry-Jenkins, 2016; Meyer & Gelman, 2016; Olsen et al., 2022). This study examines predictors of gender-stereotypic attitudes towards HEED occupations and gender-stereotypic interest in these careers among adolescents (aged between 10 and 18). We focus on this age group because young adolescents are particularly susceptible to stereotypic messages (Aronson & Good, 2002; Rainey & Borders, 1997), and important decisions for educational tracks are made during middle adolescence (DiDonato & Strough, 2013; Ramaci et al., 2017). The few studies that examined gender-stereotypical attitudes toward HEED occupations and interest in these careers are mostly carried out among U.S., U.K., and Norwegian samples (Olsen et al., 2022; Polevieja, 2014). This study has been conducted in the Netherlands. Whereas the Netherlands scores relatively high (third) on the gender equality index, segregation in occupational domains is clearly visible (European Institute of Gender Equality (EIGE),

2022; Salanauskaite, 2017). Concerning education, gender segregation is among the highest in Western Europe (EIGE, 2022). In 2019, 81 percent of the care and welfare professions, and 72 percent of pedagogic professions were fulfilled by women (Van den Brakel et al., 2020). Whereas in the Netherlands – similar to other countries – (Van den Brakel et al., 2020) the share of women in STEM professions increased over the last decades, the share of men in HEED professions has remained remarkably stable (Central Bureau for Statistics, 2019; Van den Brakel et al., 2020). Between 2009 and 2019, the share of men in care and welfare professions decreased by 1 percent, and in pedagogic professions, there was a slight increase of 4 percent (Central Bureau for Statistics, 2019; Van den Brakel et al., 2020). In this study, we aim to contribute to the understanding of why the disparity between boys and girls for interest in HEED careers is so high in a country where gender equality is relatively high in other domains compared to other (Western) countries (EIGE, 2022) by focusing on the association between adolescents' gender-stereotypic attitudes towards HEED and their interest in these careers, and the role parents play herein.

4.2 Method

Participants

This work is part of the longitudinal project 'Girls in Science' that examines adolescents' gender socialization in the family and school context in three samples at two time points. This study reports on data from all three samples of the first time point. The data was collected between April 2018 and April 2021. For the first sample, we followed up on a longitudinal study conducted previously by the same research lab 'Boys will be Boys', which recruited 391 families with two children when the second-born child was 12 months old and the first-born child was between 2.5 and 3.5 years old. All families of this sample were invited to participate again when the second-born child was 10 years old and the first-born child was 12 years old. Families were excluded if the family composition changed (e.g., divorce, decease). Of the families that were not excluded, 144 families agreed to participate again. Additionally, we recruited two new samples with older sibling pairs (12-14 and 15-17 years old at Wave 1). Families from the Western part of the Netherlands were recruited through municipality records and invited by mail. Consistent with the inclusion criteria of the first sample, families were eligible to participate if they consisted of opposite-sex couples with at least two children with a maximum age difference of 36 months between the two children.

Exclusion criteria were severe physical or mental disabilities of a family member, divorced/separated families, single-parent families, families with two non-biological parents, and parents raised outside the Netherlands. These exclusion criteria were formulated over 15 years ago at the start of the longitudinal re-search project that informed the design of the current study aimed at facilitating cross-lagged modeling.

In the original study, the focus was on the role of family processes on gender differences in social-emotional development. To examine these mechanisms in other types of families (e.g., single-parent families, families who adopted their children, families in which one or more family members had disabilities, or in which parents are born outside the Netherlands), study samples should include groups of parents and children that are sizable enough to do robust statistical analyses. Recruiting sizable groups of these families was beyond the scope of the larger study. This choice was based on the research context over a decade ago. Given that insights about inclusive sampling have changed considerably in the past decade, the choices would likely have been different now if the current study was not linked to an older design. Consequently, our first sample (sibling pairs aged between 10-12 years), and second sample (sibling pairs aged between 12-14 years) combined, our dataset consisted of 501 participating families (473 boys and 526 girls). The current study reports on data of mothers and fathers and their first and second-born children. First-born children were between 11 and 18 years old ($M = 13.1$, $SD = 2.1$), and second-born children were between 9 and 16 years old ($M = 13.1$, $SD = 2.1$). Mothers were born between 1961 and 1984, and fathers were born between 1947 and 1985 (data were collected between 2018 and 2021). Almost all parents (99%) were married, or had a registered partnership or cohabitation agreement. Most parents had finished academic or higher vocational schooling (mothers: 74%, fathers: 71%). Most children (63%) were in high school, and the majority of children (85%) were enrolled in academic or higher vocational schooling. Families with missing values on the central predictors as well as both dependent variables were excluded from the analyses. This resulted in a final sample of 940 children for gender-stereotypic attitudes toward HEED and 964 children for stereotypic interest in HEED occupations.

Procedure

For the research project 'Girls in Science' we visited families at home. Families were told that they would participate in a study on adolescents' future career preparation and the role parents and schools play in this process. The assessments (14% online due to COVID-19 restrictions), were conducted by trained (under) graduate students. Online visits were conducted using a combination of Kaltura Video Communication and Open Broadcasting Software (OBS, 2020) to record the sessions. All four family members (father, mother, firstborn, and second-born child) were present during the visit. During the assessment, dyadic parent-child and quadratic family interaction tasks were conducted and videotaped. All family members completed computer tasks, and second-born children were interviewed during the assessment. In addition, all four family members completed several questionnaires before and during the assessment (families assessed online completed questionnaires after instead of during the assessment). Each family member received a gift voucher for their participation. After the

study was completed, families received further information about the goals of the study. Informed consent was obtained from all participating families. Ethical approval for this research was provided by the Research Ethics Committee of the Institute of Education and Child Studies of the host institute.

Instruments

Parental Measures

Gender-stereotypical attitudes towards occupations. We measured parents' gender-stereotypical attitudes towards occupations, using the shortened and adjusted version of the Occupations, Attitudes, Traits – Attitude Measure (OAT-AM; Liben, Bigler, Ruble, et al., 2002; see COAT-PM for a description of the scale development). Parents were asked who they think should carry out 25 different occupations on a 5-point Likert scale ('only men', 'men more than women', 'men and women, women more than men', 'only women'). Considering our sample of highly educated parents, who hold, in general, less explicit gender-stereotypic attitudes (Endendijk et al., 2014 Polevieja & Platt, 2014), we chose to categorize the answer categories 'men more than women' and 'women more than men' as a (less) stereotypical attitude (recoded as 1) and answer categories 'only women' and 'only men' as stereotypical (recoded as 2). Answer categories 'both men and women' and the counter stereotypical answer categories 'only men' and 'more men than women' were coded as 0. Internal consistency for masculine (mothers $\alpha = .88$, fathers $\alpha = .88$) and feminine occupations (mothers $\alpha = .73$, fathers $\alpha = .78$) was high. Stereotypical attitudes towards masculine occupations were highly correlated with stereotypical attitudes towards feminine occupations (mothers, $r = .77$, fathers $r = .78$), suggesting both scales measure the same underlying construct. Therefore, we created a composite scale for gender-stereotypic attitudes towards occupations by taking the average of both scales (following the work by Liben, Bigler, Ruble et al., 2002).

Gender-stereotypical attitudes towards raising children. Parents' explicit gender stereotypes towards raising children were measured with an adjusted version of the Child-Rearing Sex-Role Attitude Scale (CRSRAS; Lee Burge, 1981; Freeman, 2007). The version of Freeman (2007) consists of statements about raising young children. We adjusted this scale to contemporary issues of parents raising adolescents. An example of a statement is '*Babysitting is a more suitable side job for girls than for boys*'. Answer categories ranged from 1 'completely disagree' to 5 'completely agree'. We recoded the items in such a way, that a higher score reflected more gender-stereotypic attitudes toward raising children. Internal consistency was high (mothers $\alpha = .87$, fathers $\alpha = .87$)

Division of domestic tasks. Mothers and fathers responded separately to a 26-item questionnaire about the division of domestic tasks in the family that was adapted from previous research (Endendijk et al., 2018) for use with an adolescent sample. Following previous studies, we selected 12 routine tasks from this questionnaire (e.g., groceries, cleaning, laundry) that are often performed daily, usually non-

negotiable, and gender-stereotypic (i.e., more often carried out by women, Twigg et al., 1999; Yavorsky et al., 2015). Parents could answer on a five-point scale (1 = 'I exclusively/almost exclusively perform this task', 5 = 'my partner exclusively/almost exclusively performs this task'). When both parents indicated that a certain task was not carried out by any of them, this item was coded as a missing value. After recording the data of mothers, higher scores for both parents indicated that mothers did that task more often than fathers (i.e., a more traditional task division). Scores of fathers and mothers were highly correlated for household tasks ($r = .75$), suggesting similar perspectives on the division of labor. We took the average score of both parents per item to create a scale for the stereotypical division of domestic tasks. Subsequently, we took the average of these 12 tasks to construct a scale for the gender-stereotypic division of domestic tasks. Mean scores above 3 represent a traditional task division, scores around 3 represent an egalitarian task division, and scores below 3 represent a progressive task division. Internal consistency was high ($\alpha = .81$).

Occupation of parents in HEED domains. Mothers and fathers were asked to describe their current occupations. We classified these occupations into HEED and non-HEED occupations based on the definition of Croft et al. (2015), i.e., communal roles where men are underrepresented and rely on a similar core set of skills and abilities (communal values and attributes) in HEED domains (see Table 4.1 for examples of HEED occupations from Croft et al., 2015). In addition, parents without a paid position who did unpaid domestic work (taking care of the household, caregiving for family members, or others) were coded as having a HEED occupation. After the first author classified all occupations, these were discussed with authors two, four, and six to reach a consensus. In total, 281 mothers (29%) and 43 fathers (4%) had an occupation in HEED. To include in our analyses whether or not parents had a profession in HEED domains, we created dummy variables.

Table 4.1: Examples of HEED Professions (Croft et al., 2015)

Health Care	Early Education	Domestic
nursing	preschool and elementary teachers	child care
social work	special education teachers	household management
occupational therapy	school counselors	
hospital administration	librarians	

Socialization values. We measured socialization values about conforming to society with a self-developed rating scale question. Parents were asked where they would place themselves on a 7-point scale where 1 referred to the statement 'For me, the most important is that my child is accepted by others and society, even if that means that they cannot always be themselves and need to adapt (e.g., clothes, preferences, or identity)' and 7 referred to the statement 'For me, the most important is that my child can

fully be themselves, even if that means that they will not always be accepted by others or society (e.g., due to deviant opinions or preferences)'.

Child Measures

Stereotypical attitudes towards and interest in HEED occupations. We created scales for stereotypical attitudes towards HEED professions and interest in these careers based on an adapted version of the occupations scale of the Children's Occupations, Attitudes, Traits – Attitude Measure (COAT-AM and COAT-PM; Liben, Bigler, Ruble et al., 2002). For this study, the occupations were translated into Dutch and adjusted to the Dutch context. Based on the definition of HEED given by Croft et al. (2015), we selected the following eight occupations, which cover all four subcategories of HEED: nurse, dental assistant, obstetrician (i.e., midwife), dietician, elementary school teacher, child care teacher, babysitter, and house cleaner. Adolescents in our study were asked who they think should carry out these occupations ('*only men*;', '*men more than women*;', '*men and women*;', '*women more than men*;', '*only women*'), and to classify these occupations according to how much they would like to do that job in the future (1 '*not at all*' – 4 '*very much*'). As the names of many occupations have a gender component in Dutch, a short description of each occupation rather than the name was given (e.g., '*helping the doctor*' for a nurse). Additionally, an image depicting one or more objects related to the occupation was added to each item (e.g., medical tools). The translated descriptions and images of professions are presented in Attachment 4A. As with the parent version of gender-stereotypic attitudes towards occupations, we recoded '*more women than men*' into 1 and the answer category '*only women*' into 2. Excluding the occupation of an obstetrician, resulted in higher internal consistency and was therefore omitted from both scales. The internal consistency for gender-stereotypic attitudes towards HEED was high (boys $\alpha = .80$, girls $\alpha = .76$) and satisfactory for gender-stereotypic interest (boys $\alpha = .68$, girls $\alpha = .67$). In figures 4.1 to 4.4 of Attachment 4B, histograms for the gender-stereotypic attitudes towards and interest in HEED occupations are presented for boys and girls.

Analysis plan. To test our hypotheses, we used linear multilevel analyses. All analyses were performed with the use of IBM SPSS Statistics 26. We carried out our analyses separately for boys and girls. We cannot simply assume that for boys and girls gender-stereotypic attitudes and gender-stereotypic interests can be predicted by the same parental characteristics (Halimi et al., 2016). This makes our results easier to interpret compared to analyses in which gender is included as a moderator. By using multilevel analysis we take into account that children are nested within families. Random intercept models were applied to take possible family differences into account for the intercepts of gender-stereotypical attitudes towards, and gender-stereotypic interest in HEED occupations. For boys, an empty model showed that around 25% of the variation in gender-stereotypical attitudes towards HEED occupations and 23% of the variation in gender-stereotypic interest in these occupations can be contributed

to family characteristics. For girls, an empty model showed that 18% of the variation in gender-stereotypical attitudes towards HEED and 11% of the variation in gender-typed interest in HEED professions can be contributed to family characteristics. For both boys and girls, age was not a significant predictor for either gender-stereotypic attitudes towards HEED or interest in HEED careers and was therefore not included as a control variable in the analyses.

To test our first hypothesis, we examined to what extent adolescents' gender-stereotypical attitudes toward HEED careers can predict their gender-stereotypic interest in these careers. Subsequently, we build up our models with parental attitudes (Model 1), role model behaviors (Model 2), and socialization values (Model 3) as predictors of adolescents' gender-stereotypical attitudes towards HEED professions (presented in Table 4.4) and adolescents' gender-stereotypic interest in these careers (presented in Table 4.5). In Model 1, we included parental gender-stereotypic attitudes towards occupations and raising children. Both types of stereotypic attitudes were moderately correlated ($r = .51$ for fathers and $r = .47$ for mothers). To distinguish these relationships, we decided to present them in separate Models (Model 1A and Model 1B). In Model 2, we included parental gender-stereotypic role model behavior (a gender-stereotypic division of household tasks and whether or not parents worked in HEED domains). In Model 3, we included fathers' and mothers' socialization values (self-expression above acceptance by others). We also tested whether the associations with parental attitudes, behaviors, and socialization values hold significance when added simultaneously in a single model (Model 4). We paid attention to multicollinearity in all our models by examining the VIF (Variance Inflation Factor). In none of our Models was multicollinearity a problem. In addition, we checked whether the residuals for gender-stereotypic attitudes towards HEED occupations and gender-stereotypic interest in HEED occupations were normally distributed (visual data representations are available upon request). For HEED interest, the residuals are approximately normally distributed. For attitudes towards HEED occupations, the residuals show some non-normality. Yet, as we have a sufficiently large sample ($N > 50$, Lumley et al., 2002) the central limit theory allows us to meet the assumption of normality even when the errors are not from a normal distribution (Casson & Farmer, 2014).

4.3 Results

Data inspection

Preliminary analyses were conducted to check the distribution of the variables. Outliers were Winsorized to bring them closer to the rest of the score distribution (Tabachnick & Fidell, 1996). To determine whether the central predictors in our study are linearly related to adolescents' gender-stereotypic attitudes towards HEED and their gender-typed interest in these occupations, we carried out tests for linearity (ANOVA). Of the 26 tested associations, only the relation between the father's gender-stereotypic attitudes

towards professions and boys' stereotypical attitudes towards HEED and the relation between mothers' gender-stereotypical attitudes towards occupations and the stereotypical division of domestic tasks and girls' gender-stereotypical interest in HEED careers appeared non-linear. We decided not to include these independent characteristics as dummy variables, as any categorization of these composite scale variables would be arbitrary, and decrease the comparability among the analyses for boys and girls. Consequently, the results of these three associations should be interpreted with caution.

Descriptive statistics

In Table 4.2, descriptive statistics are presented for the central variables of this study. We tested the homogeneity of variance for boys' and girls' gender-stereotypical attitudes towards HEED and their interest in these careers by carrying out Levene's tests. Concluding from these tests, homogeneity of variance can be assumed. On average, boys had significantly stronger gender-stereotypical attitudes toward HEED occupations ($t(962) = 3.85, p < .001$) and were less interested in these careers than girls ($t(963) = -14.29, p < .001$). We calculated effect sizes for these gender effects and interpreted these in line with Cohen (1977). For gender-stereotypical attitudes, the effect size was small ($d = .25$), for gender-stereotypical interest, the effect size was large ($d = .92$). Fathers had significantly higher gender-stereotypical attitudes towards occupations ($t(489) = 6.29, p < .001, d = .35$) and gender-stereotypical attitudes towards raising children compared to mothers ($t(488) = 8.12, p < .001, d = .43$). Our composite measurement for parental gender-stereotypical division of household tasks showed that mothers did on average more domestic tasks, revealing a gender-stereotypical division of domestic tasks ($M = 3.6, SD = 0.5$). The underrepresentation of men in HEED is visible in our sample: 4% of the fathers and 28% of the mothers had a profession in HEED. Mothers found self-expression on average (slightly) more important for their children compared to fathers, but this difference did not reach statistical significance ($t(465) = -1.83, p = .068, d = .11$).

Table 4.2: Descriptive statistics of Characteristics of Children and Parents

	Range	Boys (n = 473)		Girls (n = 526)	
		M	SD	M	SD
<i>Characteristics children</i>					
Stereotypical attitudes towards HEED	0-2	0.37	0.32	0.30	0.29
Gender-typed interest in HEED	1-4	1.92	0.49	2.38	0.53
		<i>Fathers (n = 499)</i>		<i>Mothers (n = 499)</i>	
<i>Characteristics parents</i>					
Stereotypical attitudes: occupations	0-2	.27	0.27	.18	0.22
Stereotypical attitudes: raising children	1-4	2.05	0.57	1.81	0.51
Stereotypical division domestic tasks	1-5	3.54	0.57	3.54	0.87
Socializing values: self-expression	1-7	5.40	1.06	5.49	0.60

Results from Multilevel Analyses

Adolescents' attitudes and gender-stereotypic interest in HEED occupations

Table 4.3 shows that adolescents' gender-stereotypic attitudes towards HEED occupations predict their gender-stereotypic interest in these careers: the stronger boys' gender-stereotypic attitudes towards HEED, the less interested they are in these careers, whereas the stronger girls' gender-stereotypic attitudes towards HEED occupations, the more interested they are in these careers. Consequently, Hypothesis 1 was confirmed in our data.

Table 4.3: Adolescents' Gender-stereotypic Attitudes predicting Gender-typed Interest in HEED Occupations

	Boys (n = 454)	Girls (n = 510)
	Model 1 b (S.E.)	Model 1 b (S.E.)
Stereotypic attitudes towards HEED occupations	-.202**(.07)	.253**(.08)
Intercept	2.000***(.07)	2.306***(.03)
Variance individual level	.180 (.02)	.247
Variance family level	.051 (.02)	.026
-2Loglikelihood	576.359	742.721

Note. Values represent unstandardized regression coefficients. Standard error in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

Adolescents' gender-stereotypic attitudes towards HEED occupations

In Table 4.4 the results of the multilevel analyses predicting children's attitudes toward HEED professions are presented.

Gender-stereotypic attitudes. Model 1A shows that adolescent boys and girls hold stronger gender-stereotypic attitudes towards HEED when their mothers have stronger gender-stereotypic attitudes towards occupations. Girls also hold stronger gender-stereotypic attitudes towards HEED when their fathers have stronger gender-stereotypic attitudes towards occupations. For boys, this association is in the expected direction, but not significant ($p = .064$), meaning that boys do not hold significantly stronger gender-stereotypic attitudes towards HEED occupations when their fathers have stronger gender-stereotypic attitudes towards occupations.

Model 1B shows that adolescents have stronger gender-stereotypic attitudes toward HEED when their mothers hold stronger gender-stereotypic attitudes toward raising children. For fathers, this association is not significant. Consequently, Hypothesis 2a was fully supported in our data for mothers, and partly for fathers.

Role model behavior. In Model 2, parents' gender-stereotypic division of domestic tasks was not significantly related to adolescents' gender-stereotypic attitudes towards HEED occupations. Yet, in line with our expectations, girls with mothers who

have a HEED profession hold stronger gender-stereotypic attitudes towards HEED careers compared to girls whose mothers work in other domains. For boys, this association was not significant. Adolescents with fathers who work in HEED domains do not hold less gender-stereotypic attitudes towards HEED compared to those whose fathers work in other domains. Therefore, Hypothesis 3a was only partly confirmed for mothers by our data and not confirmed for fathers.

Socialization values. In Model 3, fathers' socialization values (valuing self-expression above being accepted by society) are significantly related to their boys' gender-stereotypic attitudes towards HEED. The more fathers value self-expression, the less gender-stereotypic attitudes their boys hold towards HEED occupations. For girls, this association is not significant. Mothers' socialization values are not significantly related to adolescents' gender-stereotypic attitudes. Thus, Hypothesis 4a was partly supported by our data for fathers, and not supported for mothers.

Final model. In Model 4, gender-stereotypic attitudes of mothers towards occupations and fathers' socialization values were, also while controlling for all other parental characteristics, significantly related to boys' gender-stereotypic attitudes towards HEED occupations. For girls, this final model shows that gender-stereotypic attitudes of fathers towards occupations and mothers' gender-stereotypic attitudes towards raising children were, also while controlling for all other parental characteristics, significantly related to stronger gender-stereotypic attitudes towards HEED occupations.

Adolescents' gender-stereotypic interest in HEED occupations

In Table 4.5 the results of the multilevel analyses predicting adolescents' attitudes toward HEED professions are presented.

Gender-stereotypic attitudes. In Model 1A parental stereotypic attitudes towards occupations were not significantly related to boys' and girls' gender-stereotypic interest in HEED careers. Also, parental gender-stereotypic attitudes towards raising children (Model 1B) were not significantly related to adolescents' interest in HEED occupations. Therefore, Hypothesis 2b was not supported by our data.

Role model behavior. In Model 2 for boys, the association between the parental stereotypic division of domestic tasks and interest in HEED careers was in the expected direction, but not significant for girls and approached significance for boys ($p = .067$). Furthermore, gender-stereotypical interest in HEED careers was not significantly different between adolescents who have parents working in HEED domains and adolescents who do not have parents working in HEED domains. Thus, Hypothesis 3b in HEED was not supported by our data.

Socialization values. In Model 3, we found that for both boys and girls, the relation between parental socialization values is non-significant. Therefore, Hypothesis 4b was not supported by our data.

Final model. In Model 4, parental attitudes, role model behaviors, and socialization values were added simultaneously. For boys, this final model shows that parental

Table 4.4: Parental Characteristics predicting Adolescents' Gender-stereotypic Attitudes towards HEED Occupations

	Boys (n = 442)				Girls (n = 498)					
	Model 1A	Model 1B	Model 2	Model 3	Model 4	Model 1A	Model 1B	Model 2	Model 3	Model 4
<i>Gender stereotypical attitudes</i>										
Stereotypes fathers: occupations	.118 (.06)				.111 (.07)	.163***(.05)				.163** (.05)
Stereotypes mothers: occupations	.268***(.07)				.231*(.09)	.246***(.06)				.136 (.07)
Stereotypes fathers: raising children		.045 (.03)			-.009 (.03)		.031 (.02)			-.017 (.03)
Stereotypes mothers: raising children		.083*(.03)			.024 (.04)		.122***(.03)			.073* (.03)
<i>Stereotypic behavior</i>										
Division of domestic tasks			.052 (.03)		.015 (.03)			.043 (.03)		.005 (.03)
Father HEED professional (ref = no)										
Yes			.027 (.08)		.019 (.08)			.035 (.07)		.010 (.07)
Missing			.036 (.09)		.053 (.12)			-.068 (.08)		-.067 (.09)
Mother HEED professional (ref = no)										
Yes			.014 (.04)		-.001 (.04)			.068*(.03)		.036 (.03)
Missing			.136 (.09)		.037 (.10)			.001* (.11)		-.016 (.10)
<i>Socialization values</i>										
Fathers: self-expression						-.043**(.01)			-.021 (.01)	-.012 (.01)
Mothers: self-expression						-.009 (.02)			-.020 (.01)	-.008 (.01)
Intercept	.294***(.02)	.131(.07)	.180 (.12)	.652***(.11)	.395*(.18)	.211***(.02)	.018 (.06)	.125 (.10)	.520 (.10)	.213 (.16)
Variance individual level	.076 (.01)	.077 (.01)	.077 (.01)	.078 (.01)	.077 (.01)	.072 (.01)	.071 (.01)	.071 (.01)	.069 (.01)	.071 (.01)
Variance family level	.020 (.01)	.023 (.01)	.024 (.01)	.023 (.01)	.020 (.01)	.009 (.01)	.012 (.01)	.014 (.01)	.016 (.01)	.008 (.01)
-2Loglikelihood	221.433	230.278	236.949	231.312	211.491	159.563	167.709	184.373	184.026	142.599

Note. Values represent unstandardized regression coefficients. Standard error in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4.5: Results parental characteristics predicting adolescents' gender-typed interest in HEED occupations

	Boys (n = 454)				Girls (n = 510)			
	Model 1A	Model 1B	Model 1C	Model 4	Model 1A	Model 1B	Model 1C	Model 4
<i>Gender stereotypic attitudes</i>								
Stereotypes fathers: occupations	.183 (.09)			.202 (.11)	-.003 (.09)			-.007 (.10)
Stereotypes mothers: occupations	.066 (.11)			.140 (.13)	.058 (.11)			.005 (.13)
Stereotypes fathers: raising children		.020 (.04)		-.007 (.05)		.010 (.04)		.027 (.05)
Stereotypes mothers: raising children		.011 (.05)		-.036 (.06)		.042 (.05)		.031 (.06)
<i>Gender stereotypic behavior</i>								
Division of domestic tasks			-.093 (.05)				.046 (.05)	
Father HEED professional (ref = no)								
Yes			-.029 (.12)				.236 (.12)	
Missing			.054 (.13)				-.186 (.14)	
Mother HEED professional (ref = no)								
Yes			.062 (.06)				-.091 (.05)	
Missing			.036 (.14)				-.024 (.18)	
<i>Socialization values</i>								
Fathers: Self-expression								
Mothers: Self-expression								
Intercept	1.856***(.04)	1.852***(.11)	2.229***(.18)	2.340***(.16)	1.917***(.18)	2.376***(.04)	2.242***(.18)	2.382***(.29)
Variance individual level	.187(.02)	.187(.02)	.181(.02)	.185(.02)	.188(.02)	.252(.03)	.254(.03)	.254(.03)
Variance family level	.049(.02)	.052(.02)	.053(.02)	.045(.02)	.048(.02)	.028(.02)	.022(.02)	.021(.02)
-2Loglikelihood	613.915	618.317	624.964	594.748	788.502	787.841	789.615	755.271

Note. Values represent unstandardized regression coefficients. Standard error in parentheses. *** $p < .001$, ** $p < .01$, * $p < .05$.

gender-stereotypical division of domestic tasks is, while controlling for all other parental characteristics, significantly related to boys' gender-stereotypic interest in HEED occupations. The more gender-stereotypic this division, the less interested boys were in HEED careers. Because this association was significant while controlling for parental attitudes and socialization values, this analysis partly confirmed Hypothesis 3b. For girls, this relation was also non-significant in this final model. For both boys and girls, all other parental characteristics remained non-significant when added simultaneously.

4.4 Discussion

This study aimed to add to the literature on adolescents' gender-stereotypic attitudes and interest in HEED occupations by examining 1) the association between adolescents' stereotypic attitudes towards HEED occupations and their stereotypic interest in HEED careers, (2) the association between, respectively, parental gender-stereotypic attitudes, gendered role model behavior, and socialization values with adolescents' stereotypic attitudes towards and interest in HEED occupations. We examined these associations in the Netherlands, a country in which gender equality is valued, but at the same time has among the highest levels of gender segregation in education in Western Europe (EIGE, 2022). First, we found that, in line with the theory of gender schema theory (Bem, 1981, 1983), adolescents' gender-stereotypic attitudes towards HEED occupations predicted their gender-stereotypic interest in these careers (i.e., lower interest in HEED among boys, higher interest among girls). Second, we found that fathers and mothers seem to play a unique role in predicting gender-stereotypic attitudes for adolescent boys and girls. For boys, mothers' gender-stereotypic attitudes, and fathers' socialization values are related to stereotypic attitudes towards HEED occupations. For girls, gender-stereotypic attitudes of both mothers and fathers and having a mother working in a HEED domain are related to gender-stereotypic attitudes towards HEED occupations. Third, we found that except for parental gender-stereotypical household tasks division, these parental characteristics were not related to gender-stereotypic interest in HEED careers. For boys, but not for girls, stronger parental gender-stereotypic division of household tasks was related to more gender-stereotypic interest in HEED careers.

Adolescents' gender-stereotypic attitudes and interest in HEED occupations

Previous studies examined the association between gender-stereotypic attitudes toward occupations in general and occupational interest in STEM domains (Cundiff et al., 2013; Garriott et al., 2017). However, few studies focused on this association in the HEED domain (except Olsen et al., 2022). Our findings show that adolescents' gender-stereotypic attitudes toward HEED occupations seem to stir their interest in these careers. This association is in line with Bem's theory of gender schemas: when children incorporate the societal norm that HEED occupations are more suitable for women in

their gender schemata, these professions are more interesting for girls than for boys (Liben, Bigler, Ruble et al., 2002). This association is in line with the study of Olsen et al. (2022) among young children, but not in line with other previous studies among young children, which found no associations between gender-stereotypic attitudes and gender-stereotypic occupational preferences (Liben, Bigler, Ruble et al., 2002; De Vries et al., 2012). This illustrates the need for more research on the development of gender-stereotypic interest in HEED careers specifically throughout childhood.

Adolescents' gender-stereotypic attitudes towards HEED occupations

Parental gender-stereotypic attitudes

Regarding parental predictors, we found that in line with the theory of gender schemas, when mothers hold more gender-stereotypic attitudes towards occupations in general and towards raising children, their children have more gender-stereotypic attitudes towards HEED occupations. Previous studies on the transmission of gender-stereotypic attitudes from parents to children mainly focused on younger children and used measurements that might be outdated (Halpern & Perry-Jenkins, 2016; Solbes-Canales et al., 2020). The current study illustrates that, as expected, contemporary parental gender-stereotypic attitudes are also related to adolescents' gender stereotypes about HEED occupations. In contrast to the gender schema theory, but in line with previous empirical studies among younger children, we did not find similar effects for fathers. Here we should state that for boys, this result should be interpreted with caution due to the violation of the linearity assumption. The absence of effects for fathers in previous studies might be explained by the fact that fathers on average spend less time with their children, and therefore have fewer opportunities to transmit their attitudes to their children (Halpern & Perry-Jenkins, 2016). Although the difference between fathers and mothers in the time they spend with their children is often assumed to decrease when children get older, this is not supported by literature (Mastrotheodoros, 2019; Phares, 2009). We found one exception in this pattern of absent associations between fathers' and children's gender-stereotypic gender attitudes. Daughters of fathers with more gender-stereotypic attitudes towards occupations, in general, have more stereotypic attitudes toward HEED careers. Perhaps fathers' stereotypes about occupations might become important during adolescence, a period where decisions about studies and occupations become more salient (DiDonato & Strough, 2013; Ramaci et al., 2017). As gender norms about occupations are less rigid for women than for men (Wilbourn & Kee, 2010), daughters might be inclined to take both parents' attitudes towards occupations into account.

Parental role model behavior

Regarding role model behavior, our results are partly in line with previous studies. Consistent with the theory of gender schema, daughters of mothers who have HEED careers hold more gender-stereotypic attitudes toward HEED occupations. This is in line with the study of Fulcher & Coyle (2011), which found that parental work traditionality predicts girls' (but not boys') endorsement of the breadwinner ideal. In contrast to this theory, we did not find any effect for fathers working in HEED professions. We should acknowledge here that it is likely that our sample size did not have the restrictive statistical power to detect effects for a small group (merely 4% of the fathers were HEED professionals). Studies focusing specifically on fathers working in these counter-stereotypic occupations might provide more insight into whether, and to what extent, these fathers socialize their children with less gender-stereotypic messages. Also, in contrast to previous studies, we did not find associations between parental stereotypic household division and adolescents' gender-stereotypic attitudes toward HEED occupations (Halpern & Perry-Jenkins, 2016). This could indicate that this role model behavior is related more strongly to implicit gender stereotypes of adolescents, rather than explicit ones. These absent associations cannot be ascribed to our highly educated sample, because the household division of the majority of the families in our study is relatively gender stereotypic, meaning that the mother takes up the lion's share of routine household tasks.

Socialization values

In addition to parental attitudes and role model behaviors, socializing values about the importance of self-expression for children were of added value when predicting boys' gender-stereotypic attitudes towards HEED occupations. When fathers valued self-expression as more important for their children, their sons held less gender-stereotypic attitudes toward HEED. In qualitative research on gender norms, conformity values are theorized to explain differences in parental acceptance of young children's gender counter-stereotypic behavior and interest (Croft et al., 2014; Stacey & Padavic, 2021). Our results indicate that these differences in parental socialization values are indeed able to predict gender-stereotypic attitudes among adolescent boys. Our findings show that when it comes to self-expression, fathers might very well play a more crucial role in preparing their sons for growing up in a society where their masculinity is likely to be questioned when not conforming to rigid gender norms (Croft et al., 2014; Stacey & Padavic, 2021). Further research is needed to examine *how* fathers transmit these values to their sons to fully understand these associations.

Adolescents' gender-stereotypic interest in HEED occupations

For adolescents' gender-stereotypic interest in HEED, we found only one parental predictor. We should state here that for girls, the non-significant associations between

mothers' gender-stereotypic attitudes and parental gender-stereotypic division of household tasks and adolescents' interest in HEED careers should be interpreted with caution due to the violation of the linearity assumption. Our results might imply that other mechanisms apply to the development of gender-stereotypic interest, for example, parents' implicit gender stereotypes or other forms of gender socialization (i.e., gender talk, gender-differentiated parenting). Previous studies found some support for the influence of parental implicit gender stereotypes. Daughters of fathers with more implicit gender stereotypes have more gender-stereotypic occupational aspirations (Croft et al., 2014). Studies examining implicit gender stereotypes and other forms of explicit and implicit gender socialization (i.e., gender talk, gender-differentiated parenting), could provide more insights into these mechanisms. Yet, in line with the theory of gender messages, we found that parental gender-stereotypic division of household tasks predicted lower interest in HEED careers among boys. This suggests that even when parents have low levels of gender-stereotypic attitudes, observing a traditional division of household tasks in daily life can affect boys' gender-stereotypic interest in HEED careers. As this was the only parental characteristic predicting gender-stereotypic interest in HEED careers among boys, there is a possibility of a type I error. Therefore, this result should be interpreted with caution. The fact that we found an effect for boys, but not for girls is in line with the study of Polevieja and Platt (2014), but in contrast to the study by Croft and colleagues (2014), who found an effect for girls. These inconsistencies could be driven by the use of different measurements of gender-stereotypic household division across these studies (in or excluding caregiving tasks, focusing on hours spent on these tasks, or the types of tasks). To shed light on these effects, future studies might benefit from a more comprehensive measurement of gender-stereotypic household task division.

Limitations

The current study has some limitations. First, due to its cross-sectional design, this study cannot provide insights into issues of causality. Future research would benefit from a panel design to investigate to what extent parental attitudes, role model behavior, and socialization values cause adolescents' gender-stereotypic attitudes and interest in HEED careers over the life course of individuals (Crouter et al., 2007; Halimi et al., 2016). Second, as our sample was not representative (highly educated, White, consisting of a father and a mother, mostly living in non-rural areas), we cannot generalize our findings to the general Dutch population. Previous studies show that gender-stereotypic attitudes and interests vary among families with different backgrounds (Crouter et al., 2007; Halimi et al., 2016). For example, stronger gender-stereotypic attitudes and interests were found among families with lower social-economic status (Halpern & Perry-Jenkins, 2016). Therefore, future studies would benefit from a more inclusive sample, especially when it comes to social-economic status. In addition, future studies should aim for more gender-inclusive

samples (i.e., not limited to people that identify with the gender binary) to gain a more comprehensive understanding of gender-stereotypic attitudes and interests (Swenson et al., 2022). Family members from trans and non-binary communities can challenge cisnormative expectations, and in doing so, inform the gender development in families (McGuire et al., 2016). Studies specifically focusing on these groups could give valuable insights into gender-stereotypic occupational interests and gender-stereotypic attitudes (Swenson et al., 2022). Third, we relied on questionnaires, which can be prone to social desirability and therefore, for example, underestimate gender-stereotypic attitudes (Lagattuta et al., 2012). Moreover, they do not provide insights into how these attitudes and socialization values are transmitted during parent-child interaction (e.g., gender-differentiated behavior, gendered talk). Observational studies could shed more light on these processes. Finally, we measured gender stereotypic attitudes towards and interest in 3 of the HEED professions (dental assistant, nurse, obstetrician) by a description that included 'helping'. This could have added to the perception of the communal nature of these jobs, and thereby the perceived femininity of these professions (Forsman & Barth, 2017). Yet, by including visualizations of these professions, children in this study did not solely rely on these descriptions. Future research should examine to what extent including descriptions as 'helping' play a role in gender-stereotypic attitudes towards, and interest in, HEED professions. Furthermore, this could provide insight into how studies for HEED jobs and descriptions in a vacancy can be made more attractive for boys and men (Forsman & Barth, 2017).

4.5 Conclusion

Having more men represented in HEED occupations would be beneficial for men, women, and society as a whole (Meeussen et al., 2020). Where previous studies on attitudes towards and interest in HEED occupations often focused on individual characteristics of young adults and the influence of parental characteristics on younger children, this study focused on adolescents and their parents. In line with the theory of gender schema, the present findings suggest that even among advantaged adolescents in a relatively gender-equal country such as the Netherlands, explicit gender-stereotypic attitudes about traditionally perceived feminine occupations and careers seem to induce gendered interest in these careers. For boys, these gender-stereotypic attitudes toward HEED occupations are predicted by mothers' gender-stereotypic attitudes and fathers' socialization values, and for girls predicted by both mothers' and fathers' gender-stereotypic attitudes and having a mother working in the HEED domain. These findings seem to reflect the relatively high horizontal gender segregation in education in the Netherlands compared to other Western European countries (EIGE, 2022).

Based on these findings, reducing adolescents' gender-stereotypical attitudes seems an important step to ascertain more male representation in HEED occupations,

and therefore deserves more attention from policymakers and educators. In doing so, parents' gender-stereotypic attitudes should be taken into account, as this appears to be important in developing these attitudes towards HEED. Parents who want their children to develop their own talents and preferences rather than the talents and preferences that society expects from them can be encouraged to critically evaluate their own (gender) stereotypic attitudes, and behavior, and, for boys, encourage self-expression.

4.6 Appendix

Attachment 4A: Translated descriptions and images of HEED professions

Nurse



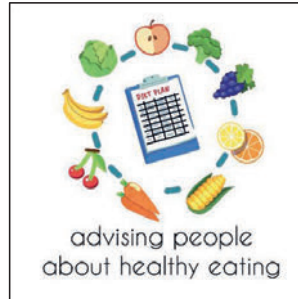
Dental assistant



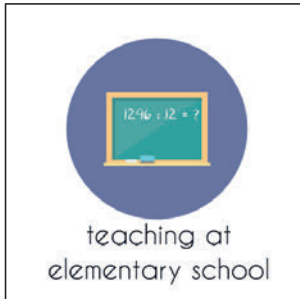
Obstetrician



Dietician



Elementary school teacher



Child care teacher



Babysitter



House cleaner



Attachment 4B: Histograms for gender-stereotypical attitudes towards and interest in HEED occupations

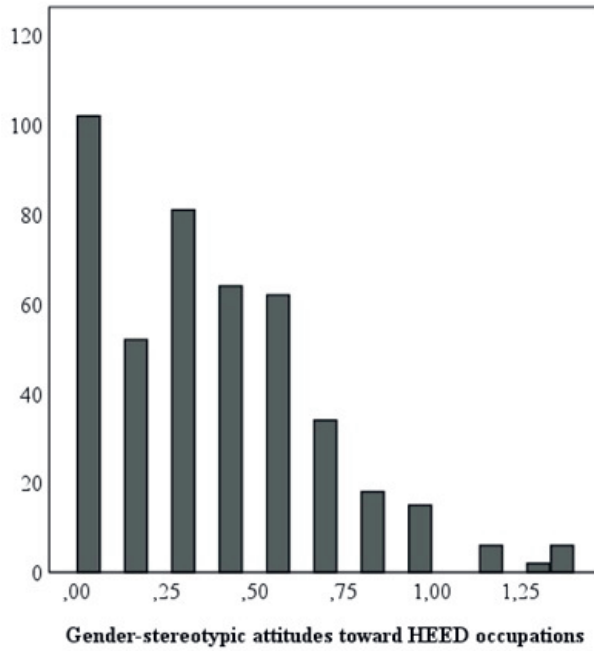


Figure 4.1: Boys' gender-stereotypic attitudes toward HEED occupations.

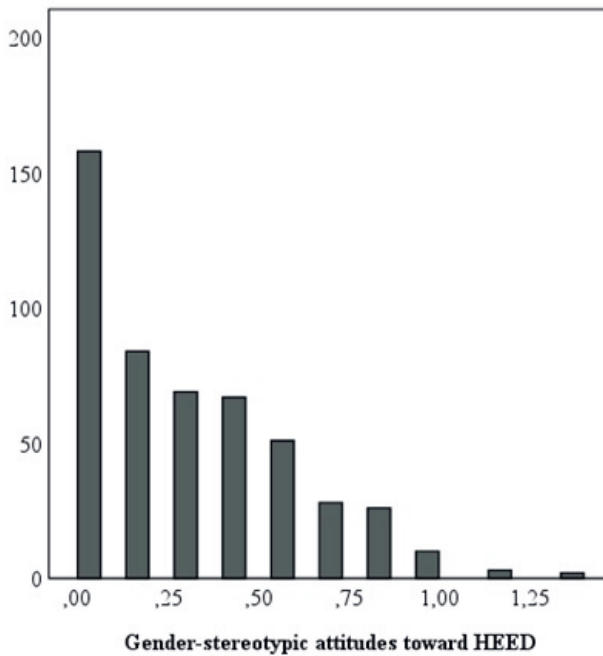


Figure 4.2: Girls' gender-stereotypic attitudes toward HEED occupations.

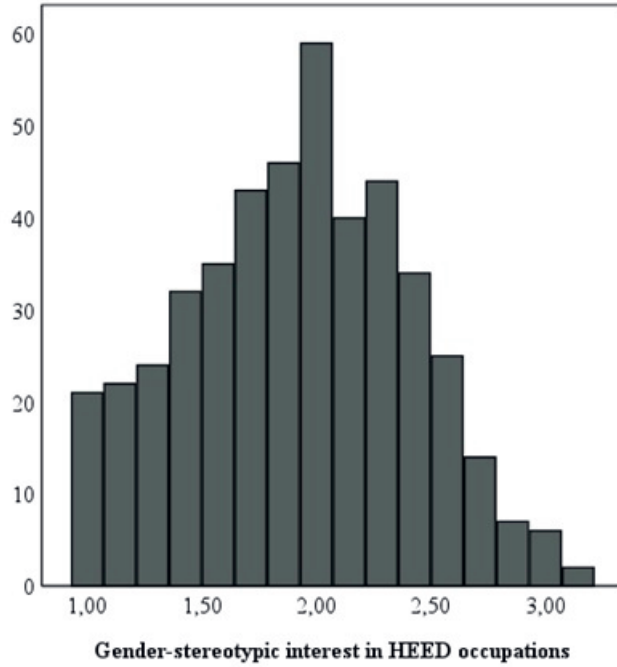


Figure 4.3: Boys' gender-stereotypic interest in HEED occupations.

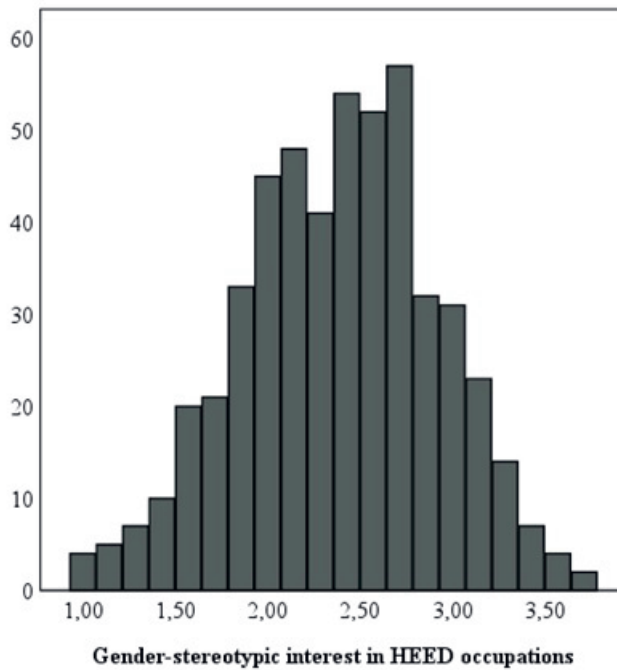


Figure 4.4: Girls' gender-stereotypic interest in HEED occupations.



Chapter 5

Same-sex kissing and having a gay or lesbian child: A bridge too far? Parent-child similarities in homophobic attitudes and observed parental discomfort

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Abstract

This study examined parent-child similarities in homophobic attitudes and observed parental discomfort with coming-out vignettes in interactions with their adolescent children (14–18 years old). Based on gender schema theory and the family process model we expected parent-child similarities in homophobic attitudes to be stronger in same-gender dyads. Further, we expected that observed parental discomfort with coming-out vignettes would occur and is stronger when the gender of the parent, child, and character in the vignette match. We used questionnaires and observation data from 199 White Dutch families in the Netherlands. Our results showed that parents' homophobic attitudes were associated with their children's homophobic attitudes. For same-sex kissing and (imagining) having a gay son, these associations were stronger between parents and children of the same gender. Further, parental discomfort with coming-out vignettes occurred and was stronger when parents and children had the same gender, regardless of the gender of the vignette character. In conclusion, policies aiming at gay and lesbian inclusion should not be limited to accepting gay/lesbian identities, but also pay attention to the acceptance of same-sex intimacy expressions, having gay or lesbian family members, and normalizing discussions about gay/lesbian lives.

5.1 Introduction

Today, many Western industrialized countries have legalized same-sex marriage and have policies in place to improve the acceptance and inclusion of sexual minorities in society (ILGA Annual Report, 2022). Yet, even today, many gay and lesbian adults and children still face social exclusion and harassment, negatively affecting their well-being (Cosma et al., 2022; de Lange et al., 2022). To avoid negative confrontations, many people refrain from exercising their (informal) right to kiss people of the same sex in public (Blair et al., 2022; Lemke, 2022), and many gay and lesbian children experience high levels of stress and anxiety in the process of coming out to their families and friends (Mallory et al., 2021; Owens, 2018). This is also the case in the Netherlands, a country often praised for being the first country in the world to legalize same-sex marriage (Huijnk, 2022; Kuyper, 2018). These findings highlight that, also in the Dutch national context, much remains to be accomplished to ensure that gay and lesbian individuals are fully accepted in society and treated equally.

Both intended homophobic and affirmative behavior toward gay and lesbian individuals (e.g., the intention of voicing support, engagement in advocacy, and countering homophobia; Huic et al., 2018) can be predicted by (the absence of) negative attitudes about these groups (Huic et al., 2018; Mereish & Poteat, 2015). Especially during adolescence, children internalize negative attitudes toward minority groups, including lesbian and gay individuals (van der Linden et al., 2015; Vollebergh et al., 2001). These attitudes differ considerably across individuals and are related to the children's environment and personal characteristics (Meeusen & Dhont, 2015). Considering environmental factors, parents are important role models and play a key role in the attitude development of children (Jaspers et al., 2008; Vollebergh et al., 2001). Therefore, examining how children are socialized with these attitudes can inform policies aimed at improving the inclusion of gay or lesbian individuals in society. Whereas numerous studies on negative attitudes toward these groups have focused on individual characteristics of adolescents and the influence of peers (e.g., religiosity, educational level, and intergroup contact (Santona & Tognasso, 2018; Sevecke et al., 2015) few studies have examined the similarity between parents and children in homophobic attitudes (van der Linden et al., 2015). Based on gender schema theory (Bem, 1981, 1983) and the family process model (Endendijk et al., 2018) the current study aims to answer the following research questions: 1) To what extent are parental explicit homophobic attitudes about gay or lesbian individuals in their environment (i.e., men kissing men in public, women kissing women in public, having a gay or lesbian child) associated with their children's explicit attitudes about gay or lesbian individuals in their environment? 2), to what extent do parents show discomfort with coming-out vignettes in interactions with their children, and, 3) to what extent does gender (of the parent, child, and target) play a role in a) similarity in homophobic attitudes between parents and children, and b) observed parental discomfort with coming-out vignettes?

Theoretical background

Heteronormativity

Heteronormativity refers to the mundane, everyday way in which heterosexuality is privileged, taken for granted, and perceived as normal and natural (Martin, 2009). In feminist and queer theory heteronormativity is posited as the underlying construct and key contributor to homophobic attitudes and negative behavior toward sexual minorities (Habarth, 2015; Mereish & Poteat, 2015). It defines the boundaries of socially acceptable relationships and identities and constructs the underlying pressure for people to conform to socially accepted sexual behavior and gender roles (Habarth, 2015). Heteronormativity is intertwined with gender, as normative ideas about heterosexual behavior and relationships always consist of fixed expectations of the gender binary: man or woman (Habarth, 2015). Consequently, differentiating between attitudes concerning gay men and lesbian women and studying these normative ideas is key (Kite et al., 2021).

Socialization with heteronormative messages

From a very young age, children are socialized with heteronormative messages in multiple ways and by various actors, including parents, teachers, peers, and media (Calzo & Ward, 2009). Illustrative examples of how children believe that being heterosexual is the norm are movies about princesses falling in love with princes (Hefner et al., 2017), bedtime stories with families always consisting of a mom and a dad (Stafford, 2016), and parents and peers assuming all girls fall in love with boys (Baricevic & Kashubeck-West, 2019; Calzo & Ward, 2009). The family context is crucial for the development of attitudes about minority groups (Vollebergh et al., 2001). Gender schema theory (Bem, 1981, 1983) suggests that children internalize the gender messages their parents communicate to them in various ways. As gender and heteronormativity are intertwined, we argue that this theory can also be applied to the underlying process of how parents socialize their children with heteronormativity and homophobic attitudes. This underlying process takes place through various socialization practices. First, parents may display gendered role model behavior. Children observe differences in behavior between mothers and fathers. In doing so, children learn what behavior is appropriate for men and what is for women (Endendijk et al., 2018). Heterosexual parents inherently display a heterosexual relationship, that functions as a role model for their children (Martin, 2009). In addition, parents can display different reactions to gay or lesbian individuals that can be observed by their children (e.g., showing discomfort when seeing a woman discussing bisexuality on TV; Astle et al., 2022). Second, parents communicate gender and homophobic messages through explicit talk (e.g., "I don't need to see them kissing each other in front of me;" Ghosh, 2020) and implicit gender talk (e.g., explaining the meaning of intimacy through the example of heterosexual marriage; Martin, 2009). Third, children encounter gender-differentiated parenting

behavior in their interaction with their parents (i.e., responding differently to the same behavior of boys and girls; Endendijk et al., 2016; Mesman & Groeneveld, 2018). For example, parents (especially fathers) express more discomfort with their son showing counter-stereotypic behavior (e.g., boys playing with barbies, dancing) compared to their daughter showing counter-stereotypic behavior (e.g., playing with toy cars and trucks, playing football), because for boys this type of gender-flexible behavior could signal their son is gay (Kane, 2006). For girls, however, showing counter-stereotypic behavior is often perceived as something positive and encouraged by parents (Kane, 2006). In addition, fathers actively promote heterosexuality for their sons and sexual passivity for their daughters (Solebello & Elliott, 2011). These messages are internalized by children in their gender schemas and influence children's perceptions of the world and their attitudes (Bem, 1981, 1983; Kane, 2006).

Homophobic attitudes toward gay men and lesbian women

Indeed, children have more negative attitudes toward gay/lesbian individuals and rights when their parents have more negative attitudes toward gay/lesbian individuals and rights (Jaspers et al., 2008; Meeusen & Dhont, 2015; O'Bryan et al., 2004; Oksal, 2008; van der Linden et al., 2015). Whereas some studies on the similarity between parents and children in attitudes toward gay/lesbian individuals found that both mothers' and fathers' attitudes are associated with their children's attitudes (Meeusen & Dhont, 2015) others found that only fathers (O'Bryan et al., 2004) or only mothers (Oksal, 2008) transmit these attitudes. This inconsistency might be due to the focus on different dimensions of attitudes toward gay/lesbian individuals and rights (e.g., acceptance of homosexuality, gay/lesbian individuals, and gay/lesbian rights) and the differences in national family contexts (Adolfsen et al., 2010; Oksal, 2008). Except for the study by Oksal (2008), these studies do not differentiate between attitudes about gay men and lesbian women. Yet, this is important to take into account, as attitudes toward gay men are generally more negative than toward lesbian women (Bettinsoli et al., 2020; Kite et al., 2021). Further, the literature on parent-child similarity in attitudes about gay or lesbian individuals has been focused on general attitudes, which are known to be more positive than attitudes about personally encountering gay or lesbian intimacy (e.g., public same-sex kissing; Buijs et al., 2011; Doan et al., 2014; Huijnk, 2022) or having gay or lesbian family members (e.g., having a gay son or lesbian daughter; Ghosh, 2020; Huijnk, 2022). Even anti-gay violence offenders insist that they have nothing against gay or lesbian identities. Yet, when faced with expressions of it that conflict with what they perceive to be standard gendered and sexual norms, they do not refrain from all forms of violence (Buijs et al., 2011). Thus, parent-child similarities in these latter types of attitudes are crucial to examine because they provide insights into the way male and female gay or lesbian individuals are still marginalized in our current society (e.g., by denying the informal right to kiss in public).

Nonverbal heteronormative messages of discomfort

In addition to the similarity in explicit homophobic attitudes between parents and children, it is important to study the nonverbal messages parents communicate to their children about coming out stories (Martin, 2009). These messages contain important information to children about how parents perceive gay or lesbian individuals and to what extent they perceive gay or lesbian issues (e.g., coming outs) as normal (Martin, 2009; Shibley Hyde & Jaffee, 2000). In the literature on implicit racial prejudice, studies have shown that observing nonverbal cues of social discomfort (e.g., avoiding eye contact, a backward inclination of the body) during interracial contact between two other people is linked to implicit racial prejudice (Castelli et al., 2012). To our knowledge, no study examined parental nonverbal heteronormative messages of discomfort during conversations with their children about fictive children. Potential (subtle) ways in which parents communicate nonverbal heteronormative messages are silencing the existence of gay or lesbian individuals or showing discomfort when discussing gay or lesbian issues (e.g., coming-outs; van Bergen et al., 2021). Parental discomfort with coming-out vignettes can provide the heteronormative message to children that being physically or romantically attracted to the same gender is not perceived as “normal” by the parent, and therefore uncomfortable to discuss together (Martin, 2009; van Bergen et al., 2021). These messages could potentially affect both gay or lesbian children who are in the process of coming out themselves (van Bergen et al., 2021) and heterosexual children who could develop affirmative or negative behavior toward the coming outs of their friends (Martin, 2009; Shibley Hyde & Jaffee, 2000). In general, parents identify more strongly with children of the same gender compared to children of the opposite gender (Nikiforidis et al., 2018). Therefore, we expect more observed parental discomfort during the coming out vignette among same-gender parent-child dyads. Further, we expect more parental discomfort when the gender of the child in the vignette corresponds to the gender of their own child, as those vignettes could mirror a possible situation their own child could encounter. Further, there are gender differences in the adherence to heteronormativity and gender roles. In general, men hold more negative attitudes toward sexual minorities compared to women (Bettinsoli et al., 2020; Huijnk, 2022). This is especially the case for attitudes toward gay men (Bettinsoli et al., 2020; Bos et al., 2012; Kite et al., 2021). According to the family process model (Endendijk et al., 2018), children observe available role models in their environment, especially role models of the same gender (e.g., sons are more influenced by their fathers, daughters are more influenced by their mothers). Based on previous studies and the family process model, it can be theorized that there is a moderation effect of the gender of the parent and the child on the relation between parental attitudes and children’s attitudes: fathers’ homophobic attitudes may have a stronger influence on their sons’ than on their daughters’ attitudes and mothers’ homophobic attitudes are expected to have a stronger influence on their daughters’ than their sons’ attitudes. Previous studies on the similarity between parents and children in general attitudes toward gay men/lesbian women found no support

for these moderation effects of the gender of the parent and the child (Jaspers et al., 2008; Meeusen & Dhont, 2015; O'Bryan et al., 2004). To our knowledge, there are no studies that examined this moderation for attitudes about gay or lesbian individuals in people's own environment (e.g., public same-sex kissing and having a gay son or lesbian daughter) or for observed parental discomfort during coming-out vignettes. Examining these types of attitudes and parental messages while taking the gender of the target (gay or lesbian) into account could add to our understanding of the distinct and gendered ways in which the marginalized positions of male and female members of the gay and lesbian community are maintained in society.

Current study

In this study, we focus on the Netherlands. Whereas the Netherlands is often praised for its high acceptance of gay or lesbian individuals, Dutch gay or lesbian children and adults report discrimination and lower quality of health compared to heterosexual adults and children (Huijnk et al., 2022). Previous studies on anti-gay violence showed that Dutch people are less progressive than the gay-friendly narrative of citizenship and cultural identity suggests (Buijs et al., 2011; Huijnk et al., 2022). It is, therefore, especially in this context, relevant to move beyond examining the general acceptance of gay/lesbian individuals and rights. Instead, we zoom in on homophobic attitudes when encountering public same-sex intimacy, having gay or lesbian children, and parental implicit messages of discomfort with coming-out vignettes. In our research, we focus on children in middle adolescence (aged 14–18), because this is a crucial age for attitude development, particularly when it comes to negative attitudes toward gay/lesbian individuals (van der Linden et al., 2015; Vollebergh et al., 2001). This article focuses on homophobic attitudes among families consisting of a Dutch father and a mother and two adolescent children. Rainbow families (i.e., families with parents, guardians, caregivers, extended family members, and sometimes even offspring who identify as LGBTQ+; Hedberg et al., 2022) challenge heteronormativity and cisnormativity in their very existence (Hedberg et al., 2022). Consequently, gender socialization processes, including gender attitude development, can differ from non-rainbow families (McGuire et al., 2016). As this study is part of a large-scale longitudinal research, it was not possible to include families with same-sex or trans parents. However, we acknowledge that gender is not binary and that studies specifically focusing on rainbow families could give valuable insights into how heteronormative assumptions can be challenged and inclusivity encouraged (Sobočan & Brzić, 2013). Applying the theory of gender schema's (Bem, 1981, 1983) and the family process model (Endendijk et al., 2018) to heteronormative socialization within the family, we expect that (H1) the homophobic attitudes of parents about men kissing men in public (1a) women kissing women in public (1b) are associated with children's homophobic attitudes about men kissing men in public, and women kissing women in public; H2) The homophobic attitudes of parents about (imagining) having a gay son (2a) or lesbian daughter (2b) are associ-

ated with their children's homophobic attitudes about their imagined future children being gay or lesbian; H3) The associations between parents and children's homophobic attitudes about men kissing men in public (3a) and women kissing women in public (3b) and about having a gay son (3c) or lesbian daughter (3d) are stronger for parents and children of the same gender; H4) Parental discomfort with coming-out vignettes occurs; H5) Parents show more discomfort with coming-out vignettes when their gender matches with their child's gender (5a) and the gender of the child in the vignette (5b).

5.2 Method

Participants

This work is part of the longitudinal project *Girls in Science* that examines adolescents' gender socialization in the family and school context in three samples with sibling pairs in the age groups 10–12 years, 12–14 years, and 15–17 years at Wave 1 (Wave 2 took place 2 to 3 years later). The current study reports on data from the sample with older sibling pairs that were aged between 14 and 18 at the time of the data collection at wave 1. Families from the Western part of the Netherlands were recruited through municipality records and invited by mail. Families were eligible to participate if they consisted of opposite-sex couples with at least two children with a maximum age difference of 36 months between the two children. Exclusion criteria were severe physical or mental disabilities of a family member, divorced/ separated families, single-parent families, families with two nonbiological parents, and parents raised outside the Netherlands, collected between April 2018 and April 2021. First-born children were between 16.3 and 18.8 years old ($M = 17.5$, $SD = 0.53$), and second-born children were between 14.7 and 16.2 years old ($M = 15.4$, $SD = 0.33$). Mothers were born between 1963 and 1979, fathers were born between 1952 and 1978. Almost all parents (99.5%) were married or had a registered partnership or cohabitation agreement. Most parents finished academic or higher vocational schooling (mothers: 79.9%, fathers: 79.8%). In total, 84% of the children were highly educated (i.e., were enrolled at pre- (applied) university tracks, or studied at (applied) universities). Most children (87%) were in high school. Families with missing values on the central predictors as well as dependent variables were excluded from the analyses. Our final dataset consisted of 199 participating families, with 398 children (165 boys, and 233 girls). Parental discomfort was measured in an observation task with the second child. There were 5 missing values on observed parental discomfort. For this part of the analysis, our final dataset consisted of 194 parent-child dyads (second born children did the observation task twice, once with their mothers, and once with their fathers).

Procedure

For the research project *Girls in Science*, we visited families at home. Families were told that they would participate in a study on adolescents' future career preparation and the role parents and schools play in this process. The assessments were conducted by trained (under) graduate students. All four family members (father, mother, firstborn, and second-born child) were present during the visit. During the assessment, dyadic parent-child and family-wide interaction tasks were conducted and videotaped. All family members completed computer tasks, and second-born children were interviewed during the assessment. In addition, all four family members completed several questionnaires before and at the time of the assessment. Each family member received a gift voucher for their participation. After the study was completed, families received further information about the goals and outcomes of the study. Informed consent was obtained from all participating family members. Ethical approval was provided by the Research Ethics Committee of the Institute of Education and Child Studies of the host institute.

Instruments

Homophobic attitudes about same-sex kissing in public

We measured children's and parents' homophobic attitudes about same-sex kissing in public with two statement questions (identical for parent and child) inspired by the survey items of The Netherlands Institute for Social Research (Huijnk, 2022): *I find it less of a problem to see a man and a woman kissing in public than to see two men kissing in public* and *I find it less of a problem to see a man and a woman kissing in public than seeing two women kissing in public*. Parents and children could answer on a five-point scale to what extent they agreed with these statements (1 = strongly disagree, 5 = strongly agree). A higher score on this scale reflected a more homophobic attitude.

Homophobic attitudes toward having a (future) gay or lesbian child

We measured children's and parents' homophobic attitudes toward having a gay or lesbian child with two statement questions inspired by the survey items of The Netherlands Institute for Social Research (Huijnk, 2022). The statements for parents and children were, *I would have problems with my son being gay*, and, *I would have problems with my daughter being lesbian*. In case parents did not have a son (q1) or daughter (q2), we asked them to imagine they had a son/daughter. To children, we asked them to imagine they would have a gay son or lesbian daughter in the future. Parents and children could answer on a five-point scale to what extent they agreed with this statement (1 = strongly disagree, 5 = strongly agree). A higher score on this scale reflected a more homophobic attitude.

Parental observed discomfort with coming out vignettes

We observed parental discomfort with coming out vignettes in an observation task that was videotaped. The adolescent was given a booklet containing 19 short vignettes followed by a question. Each vignette described a fictional individual in a situation that adolescents are likely to encounter, like social rejection, failing a class, participating in sports, and dating. The adolescent was instructed to read out the vignettes and accompanying questions to their parent in the presented order and to not reply to the questions themselves, nor to react to their parents' answers. Parents were instructed to give one-sentence answers. It was explained to the parent-adolescent dyads that the vignettes concerned adolescents of the same age as the adolescent participating in the task. In this study we focused on one vignette that concerned a coming out¹:

*John wants to tell his friends that he is into boys. What advice would you give him?
(version A)*

*Ann wants to tell her friends that she is into girls. What advice would you give her?
(version B)*

The names and gender markers were counter-balanced, meaning that half of the families received the vignettes and questions with the names and gender markers switched. Parents in a family received the same vignettes.

Based on previous studies on signs of social discomfort in face-to-face interactions with other people (Hartley & Karinch, 2007; Phutela, 2015), three coders (first author, fourth author, and a research assistant) coded nonverbal parental discomfort (e.g., stuttering, change in speed of talking, flinching, breaking eye contact). The level of discomfort of parents was coded into four categories: 0) no signs of discomfort, 1) very subtle signs of discomfort (e.g., light stuttering), 2) multiple signs of little discomfort (e.g., breaking eye contact for a short moment physically moving away from the table and the child), 3) multiple signs of (more severe) discomfort (e.g., blushing, breaking eye-contact from the start till the end of the answer, not being able to provide an answer to the question). Dyads within the same family were coded by different coders to guarantee independency among ratings. Because we were specifically interested in signs of parental discomfort during the coming-out vignette and not general discomfort during the task, we compared the observed non-verbal behavior of parents in response to this vignette with their non-verbal responses to the other vignettes. In three sessions, scores of 25 videotapes were discussed until a consensus was reached. A reliability set of 30 videotapes was used to determine intercoder reliability. The mean intraclass correlation coefficient (single coder, absolute agreement) for discomfort between each

¹ Translated from Dutch by the first author. In the original vignettes common Dutch names were used: Jeroen and Sanne.

pair of coders was 0.80 (range = 0.75–0.85). To prevent coder drift, an interim reliability test with 11 videos was conducted. All three coders had remained reliable.

In Tables 5.1 and 5.2, descriptive statistics are presented for the central variables of this study.

Table 5.1: Descriptive Statistics of Homophobic Attitudes Among Children and Parents

	Boys		Girls		Fathers		Mothers	
	N	%	N	%	N	%	N	%
Men kissing men								
Strongly disagree	40	24.2	105	45.3	48	24.2	67	33.8
Disagree	37	22.4	64	27.6	63	31.8	74	37.4
Neither agree nor disagree	29	17.6	34	14.7	27	13.6	32	16.2
Agree	42	25.5	24	10.3	49	24.7	22	11.1
Strongly agree	17	10.3	5	2.2	11	5.6	3	1.5
Women kissing women								
Strongly disagree	49	29.7	105	45.3	61	30.8	69	34.8
Disagree	51	30.9	65	28.0	74	37.4	74	37.4
Neither agree nor disagree	37	22.4	33	14.2	26	13.1	31	15.7
Agree	24	14.5	25	10.8	35	17.7	21	10.6
Strongly agree	4	2.4	4	1.7	2	1.0	3	1.5
Having a gay son								
Strongly disagree	75	45.5	148	63.8	101	51.3	107	54.0
Disagree	41	24.8	46	19.8	57	28.9	73	36.9
Neither agree nor disagree	30	18.2	26	11.2	26	13.2	10	5.1
Agree	16	9.7	10	4.3	10	5.1	8	4.0
Strongly agree	3	1.8	2	.9	3	1.5	0	0
Having a lesbian daughter								
Strongly disagree	82	49.7	169	72.8	103	52.0	109	55.1
Disagree	48	29.1	39	16.8	63	31.8	71	35.9
Neither agree nor disagree	23	13.9	16	6.9	18	9.1	11	5.6
Agree	9	5.5	7	3.0	13	6.6	7	3.5
Strongly agree	3	1.8	1	.4	1	.5	0	0

Note. $N = 398$. Items: I find it less of a problem to see a man and a woman kissing in public than to see two men/two women kissing in public. Items for having a gay/lesbian child; I would have problems with my son being gay/my daughter being lesbian.

Analysis plan

All analyses were performed with the use of IBM SPSS Statistics 26. For the first three hypotheses on similarities between parents and children in homophobic attitudes about public same-sex intimacy and having a gay or lesbian child, we used data from both children and both parents. By using linear multilevel analysis we take into account that children are nested within families. Random intercept models were applied to take possible family differences into account for the intercepts of attitudes about

public same-sex kissing and (imagining) having a gay or lesbian child. Empty models showed that 19% of the variation in attitudes toward men kissing men, and 23% of the variation in attitudes toward women kissing women can be contributed to family characteristics. Further, 13% of the variation in attitudes toward having a gay son and 23% of the variation in attitudes toward having a lesbian daughter can be contributed to family characteristics. The age of the adolescents was not a significant predictor for any of the attitudes of parents and children and was therefore not included as a control variable in the analyses. To test Hypothesis 1, we examined to what extent fathers' and mothers' homophobic attitudes about men kissing men (Model 1a) and women kissing women (Model 2a) are associated with their children's homophobic attitudes about men kissing men and women kissing women. For testing Hypothesis 2, we examined to what extent fathers' and mothers' homophobic attitudes about (imagining) having a gay son (Model 3a) or a lesbian daughter (Model 4a) can be associated with their children's homophobic attitudes toward having a future gay or lesbian child. We tested Hypothesis 3 by examining to what extent the associations between parents' and children's homophobic attitudes about two men kissing in public (Model 1b) and two women kissing in public (2b) and about having a gay son (3b) or lesbian daughter (4b) are stronger for the parents and the children of the same gender (i.e., father-son and mother-daughter). We paid attention to multicollinearity in all our Models by examining the VIF (Variance Inflation Factor). Multicollinearity was not a problem in any of the models. To test our fourth Hypothesis on parental discomfort, we used a 2 (gender of the second child) \times 2 (gender of the adolescent in the vignette) \times 2 (gender of the parent) split plot ANOVA.

Table 5.2: Descriptive Statistics and T-tests of Homophobic Attitudes of Children and Parents

	Son		Daughter		<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)			
Homophobic attitudes - Parents							
Men kissing men	2.75	(1.35)	1.97	(1.10)	6.18	<.001	0.63
Women kissing women	2.29	(1.12)	1.96	(1.09)	2.97	<.001	0.30
Having a gay son	1.98	(1.09)	1.59	(0.91)	3.74	<.001	0.39
Having a lesbian daughter	1.80	(0.97)	1.41	(0.78)	4.24	<.001	0.44
	Fathers		Mothers				
Homophobic attitudes - Children							
Men kissing men	2.56	(1.25)	2.09	(1.04)	4.93	<.001	0.40
Women kissing women	2.21	(1.10)	2.07	(1.03)	1.55	.122	0.20
Having a gay son	1.77	(0.96)	1.59	(0.77)	2.58	.011	0.17
Having a lesbian daughter	1.72	(0.92)	1.58	(0.76)	2.16	.035	0.13

Note. *N* = 398 Items: I find it less of a problem to see a man and a woman kissing in public than to see two men/two women kissing in public; I would have problems with my son being gay/my daughter being lesbian. The *df* for each *t*-test for sons and daughters was 397, and 394 for fathers and mothers.

5.3 Results

Data inspection

Preliminary analyses were conducted to check the distribution of the variables. Outliers were winsorized to bring them closer to the rest of the score distribution (Tabachnik & Fidell, 1996). To determine whether the central predictors in our study (homophobic attitudes of parents are linearly related to homophobic attitudes of children), we carried out tests for linearity (ANOVA). Of the eight tested associations, only the association between fathers' and children's attitudes about men kissing men appeared non-linear. For comparability among the analyses, we decided not to transform these variables.

Descriptive statistics

As shown in Table 5.1, most parents and children disagreed with the statements, but among all items, homophobic attitudes exist. Compared to girls, boys held significantly stronger homophobic attitudes about men kissing men in public, women kissing women in public, their future son being gay and their future daughter being lesbian (see Table 5.2). Similarly, compared to mothers, fathers held stronger homophobic attitudes about men kissing men in public, their (imagined) son being gay, and their (imagined) daughter being lesbian. There was no significant difference between fathers and mothers in their average attitudes about women kissing women in public (see Table 5.2). Among fathers, 51% showed no signs of discomfort, 34.2% showed very subtle signs of discomfort, 13.8% showed multiple signs of a little discomfort and 1% showed multiple signs of more severe discomfort. Among mothers, 51% showed no signs of discomfort, 39.3% showed very subtle signs of discomfort, 8.7% showed multiple signs of a little discomfort and 1% showed multiple signs of more severe discomfort. Fathers and mothers did not differ in the degree of observed discomfort with the coming-out vignettes ($t(194) = 0.59, p = .557, d = 0.06$). Further, there were no differences in observed parental discomfort between the coming-out vignettes about a boy or girl (fathers: $t(194) = 0.48, p = .634, d = 0.03$; mothers: $t(194) = 0.10, p = .918, d = 0.02$).

Associations between children's and parents' attitudes about same-sex kissing

In Table 5.3 the results of the multilevel analyses for the associations between children's and parents' attitudes about public same-sex kissing and the moderation effects on the gender of the parent and the child are presented. In line with Hypothesis 1a, Model 1A shows that children had stronger homophobic attitudes about men kissing men in public when their fathers and mothers had stronger homophobic attitudes about men kissing men in public. Model 1B shows that the association between boys' and their fathers' attitudes about men kissing men in public was stronger than the association between the attitudes of boys and their mothers. Similarly, the association between girls' and their mothers' attitudes about men kissing men was stronger than

the association between girls' and fathers'. These results were in line with Hypothesis 3a. Following Hypothesis 2a, Model 2A shows that children had stronger homophobic attitudes about women kissing women in public when their fathers and mothers held stronger homophobic attitudes about women kissing women in public. Model 2B shows that the association between boys' and their fathers' attitudes about women kissing women in public was stronger than the association between the attitudes of boys and their mothers. The interaction effect for girls was in the expected direction (associations between attitudes stronger for girls and their mothers than between girls and their fathers), but borderline significant ($p = .054$). Consequently, Hypothesis 3b was partly confirmed by our data.

Table 5.3: Associations Between Parents' and Children's Homophobic Attitudes About Men Kissing Men (Model 1) and Women Kissing Women (Model 2)

	Model 1A	Model 1B	Model 2A	Model 2B
<i>Parental characteristics</i>				
Homophobic attitudes				
Men kissing men				
Fathers	.18***(.05)	.06 (.06)		
Mothers	.18**(.06)	.27***(.08)		
Women kissing women				
Fathers			.15**(.05)	.06 (.07)
Mothers			.18**(.06)	.26***(.07)
<i>Childrens' characteristics</i>				
Gender children (ref = girls)				
Boys	.81***(.12)	.82***(.11)	.33**(.11)	.34**(.10)
<i>Interactions</i>				
Men kissing men				
Fathers' attitudes X boy		.32**(.10)		
Mothers' attitudes X boy		-.23*(.12)		
Women kissing women				
Fathers' attitudes X boy				.25*(.10)
Mothers' attitudes X boy				-.21 ^a (.11)
Intercept	1.96***(.08)	1.96***(.08)	1.95 (.07)	1.95***(.07)
Variance individual level	1.20 (.11)	1.06 (.11)	.90 (.09)	.87 (.09)
Variance family level	.23 (.10)	.23 (.09)	.21 (.08)	.22 (.08)
-2Loglikelihood	1220.33	1208.59	1149.22	1141.48

Note. $N = 199$. Values represent unstandardized regression coefficients. Standard error in parentheses. In models, 1A and 2A main effects are presented, and in models, 1B and 2B moderation effects are presented. *** $p < .001$, ** $p < .010$, * $p < .050$, ^a $p = .054$ (borderline significant).

Attitudes toward future gay sons and lesbian daughters

In Table 5.4 the results of the multilevel analyses for the associations between children's and parents' attitudes about having a (future) gay son or daughter and the moderation

effects for the gender of the parent and the child are presented. In line with Hypothesis 3a, Model 3A shows that children had stronger homophobic attitudes about having a future gay son when their fathers and mothers held stronger homophobic attitudes about having a gay son. Model 3B shows that the association between boys' and their fathers' attitudes about having a (future) gay son was stronger than the association between boys and their mothers. The association between girls' and their mothers' attitudes about having a (future) gay son was not stronger than the association between girls and their fathers. Therefore, Hypothesis 3c was partly confirmed by our data. Following Hypothesis 4a, Model 4A shows that children had stronger homophobic attitudes about having a future lesbian daughter when their fathers and mothers held stronger homophobic attitudes about having a lesbian daughter. Model 4B shows no significant interaction effects between the gender of the child and the gender of the parent for attitudes about having a (future) lesbian daughter. Therefore, Hypothesis 3d was not confirmed by our data.

Table 5.4: Associations Between Parents' and Children's Homophobic Attitudes About Having a Gay Son (Model 3) and Lesbian Daughter (Model 4)

	Model 3A	Model 3B	Model 4A	Model 4B
<i>Parental characteristics</i>				
Attitudes about having a gay son				
Fathers' homophobic attitudes	.16**(.06)	.05 (.07)		
Mothers' homophobic attitudes	.23**(.07)	.30***(.09)		
Attitudes about having a lesbian daughter				
Fathers' homophobic attitudes			.15**(.05)	.09 (.06)
Mothers' homophobic attitudes			.26***(.06)	.30***(.08)
<i>Childrens' characteristics</i>				
Gender children (ref=girls)				
Boys	.43***(.10)	.42***(.09)	.42***(.08)	.42***(.08)
<i>Interactions</i>				
Homophobic attitudes about having a gay son				
Fathers' attitudes X boy		.26*(.11)		
Mothers'attitudes X boy		-.16 (.14)		
Homophobic attitudes about having a lesbian daughter				
Fathers' attitudes X boy				.16 ^b (.10)
Mothers'attitudes X boy				-.11 (.12)
Intercept	1.56***(.06)	1.57***(.06)	1.40 (.06)	
Variance individual level	.79 (.08)	.79 (.08)	.54 (.05)	.54 (.05)
Variance family level	.09 (.06)	.08 (.06)	.12 (.05)	.12 (.05)
-2Loglikelihood	1057.96	1052.22	945.72	958.84

Note. $N = 199$. Values represent unstandardized regression coefficients. In models, 3A and 3A main effects are presented, and in models, 3B and 3B moderation effects are presented. Standard error in parentheses. *** $p < .001$, ** $p < .01$, * $p < .05$, ^b $p = .097$ (borderline significant).

Parental discomfort with coming-out vignettes

In Table 5.5, the mean scores and standard deviations of parental discomfort can be found. Among fathers, the mean observed parental discomfort score was 0.64 ($SD = 0.75$), for mothers, the mean observed discomfort score was 0.59 ($SD = 0.67$). To test whether the sample mean of observed discomfort among both parents differed from zero (and discomfort thus occurred), we carried out one-sample t -tests. Among both parents, the average of observed discomfort deviated from zero ((fathers ($t(194) = 12.13, p < .001, d = 0.74$); mothers ($t(194) = 12.27, p < .001, d = 0.68$)). These results were in line with Hypothesis 4. To investigate the possible effects of the gender of the second child, the gender of the child in the vignette, and the gender of the parent on parental discomfort, we employed a three-way split-plot ANOVA, with parent gender as a repeated measure. There were no significant main effects. We found a significant two-way interaction effect of the gender of the second child and parent gender, $F(1, 190) = 4.17, p = .043, \hat{\omega}_p^2 .008$ (full ANOVA table and formula for $\hat{\omega}_p^2$ can be found in Table 5.6 in the appendix, see also Kroes & Finley, 2023). The interaction indicates that parents show more discomfort when their gender matches the gender of their child (Figure 5.1). Hypothesis 5a was confirmed by our data. Simple main effects were investigated to further explore the interaction. Statistical significance was accepted at the Bonferroni adjusted p -value of .025. There were no significant simple main effects. However, there was a trend for the simple effect of gender of the second child when the child was a boy, $F(1, 190) = 3.94, p = .049, \hat{\omega}_p^2 .015$. Mean discomfort was 0.24 higher for fathers with sons than for mothers with sons. There were no other significant two-way or three-way effects, and thus Hypothesis 5b was not confirmed by our data.

Table 5.5: Mean (Standard Deviation) of Parental Discomfort when Parents Discuss Coming Out Vignettes

	Son		Daughter	
	Boy	Girl	Boy	Girl
<i>N</i>	32	41	66	55
Father	0.78 (0.79)	0.70 (0.76)	0.62 (0.79)	0.55 (0.66)
Mother	0.47 (0.62)	0.54 (0.67)	0.66 (0.69)	0.65 (0.70)

Note. In each family, a father and a mother discussed the coming-out vignette of a boy or a girl with their son or their daughter.

5.4 Discussion

This study aimed to add to the literature by examining to what extent 1) parental explicit homophobic attitudes about gay or lesbian individuals in their environment (i.e., same-sex couples kissing in public, having a gay or lesbian child) are associated with their children's explicit attitudes about gay or lesbian individuals in their environment 2) parents show discomfort with coming-out vignettes in interactions with their

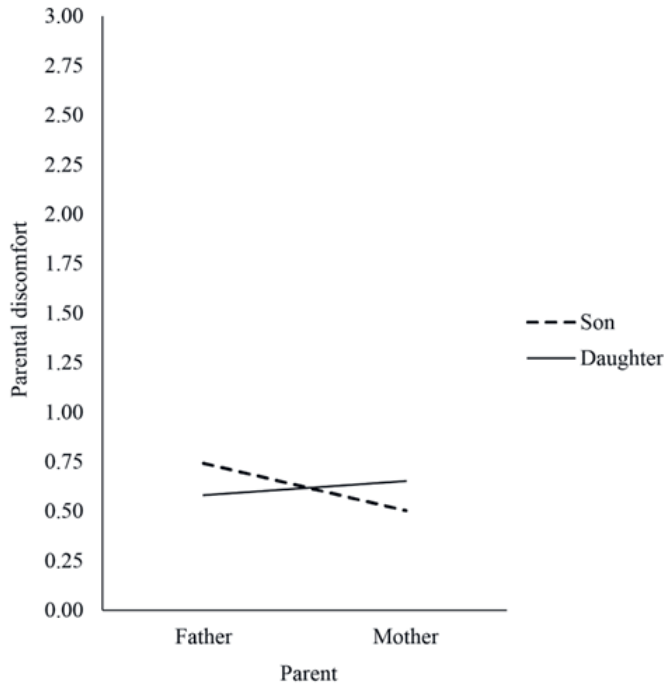


Figure 5.1: Estimated Mean Scores of Parental Discomfort for Parents Talking to Their Child.

children, and, 3) gender (of the parent, child, and target) plays a role in a) similarity in homophobic attitudes between parents and children, and b) observed parental discomfort with coming-out vignettes. We examined these associations in the Netherlands, a country often praised for being the first country in the world to legalize same-sex marriage, and for the generally positive attitudes toward gay and lesbian individuals (Huijnk, 2022; Kuiper, 2018). First, we found that, in line with gender schema theory (Bem, 1981, 1983), parents' homophobic attitudes about same-sex kissing and having a gay or lesbian child are associated with their children's homophobic attitudes. Second, in line with the theory of the family process model (Endendijk et al., 2018), we found that the associations between parents' and children's attitudes about same-sex kissing are stronger between parents and children of the same gender. For attitudes about having a (future) gay son, we found that associations are stronger between fathers and sons than between mothers and sons. Yet, associations between mothers and daughters were not stronger than between fathers and daughters. For attitudes about having a (future) lesbian daughter, we found no interaction between the gender of the parent and the child. Third, we found that observed parental discomfort with coming-out vignettes occurred in varying degrees among both mothers and fathers and was stronger among parents when interacting with children of the same gender, regardless of the gender of the child in the vignette.

Homophobic attitudes toward gay men and lesbian women

In line with gender schema theory (Bem, 1981, 1983), we found that even in current Dutch society, homophobic attitudes of adolescents about same-sex kissing and having a (future) gay or lesbian child in the future exist and are associated with the homophobic attitudes of both fathers and mothers. Previous studies repeatedly indicated that compared to families with a high social-economic background, attitudes toward gay/lesbian individuals are more negative among families with a lower social-economic background (Jaspers et al., 2008). As the vast majority of the families in our sample have a higher social-economic background, the homophobic attitudes found in the current study are likely an underestimation compared to the attitudes of the general public in the Netherlands. Finding associations between both parents' attitudes and their children's is in line with previous Dutch and Belgian studies examining general attitudes toward gay/lesbian individuals and rights (Jaspers et al., 2008; Meeusen & Dhont, 2015). It is, however, in contrast to previous studies examining the similarity between parents' and children's attitudes toward gay/lesbian individuals in the U.S. and Turkey, which only found an effect for fathers (O'Bryan et al., 2004) or mothers (Oksal, 2008), highlighting the importance to take the cultural variation in the socializing role of fathers and mothers into account (Oksal, 2008).

Following the family process model (Endendijk et al., 2018) we found that associations between parents' and children's explicit homophobic attitudes about same-sex couples kissing in public are stronger for parents and children of the same gender. This is not in line with previous studies on the general acceptance of gay/lesbian individuals and their rights, which did not find more similar attitudes among parents and children of the same gender (Jaspers et al., 2008; Meeusen & Dhont, 2015; O'Bryan et al., 2004). This suggests that in contrast to general attitudes toward gay/lesbian individuals, gendered processes within the family do play a role when it comes to homophobic attitudes about same-sex kissing. Perhaps, this can be explained by the potentially distinct ways in which homophobic attitudes are communicated from parents to children. In a country like the Netherlands, where the general acceptance of gay or lesbian individuals is high, parents are less likely to explicitly condemn gay or lesbian identities. Yet, when it comes to same-sex kissing, they might provide explicit or implicit homophobic messages (e.g., showing discomfort when encountering same-sex kissing in the street with their child). Following the gender process model (Endendijk et al., 2018) sons are more prone to this role model behavior of their fathers, and daughters to their mothers. Further, we found that associations between fathers' and sons' attitudes about having a (future) gay son are stronger than for mothers and sons. Yet, we did not find stronger associations between mothers and daughters in attitudes about having a gay son. This is in line with qualitative studies that found that especially fathers fear the possibility of their sons being gay, which they express by condemning the behavior of their sons that could signal a gay identity (e.g., playing with Barbies, dancing; Kane, 2006) or by actively promoting heterosexuality for their sons (Solebello & Elliott, 2011). For attitudes about having a lesbian daughter,

we did not find stronger associations between parents and children of the same gender, highlighting the importance of disentangling attitudes about gay men and lesbian women. The absence of stronger associations between parents and children of the same gender in attitudes about having a lesbian daughter could perhaps be explained by “specifically silencing the lesbian identity” (i.e., never discussing this identity; Martin, 2009). In Western-Industrialized cultures, lesbian women are sometimes romanticized and fetishized and therefore perceived as less threatening, especially by heterosexual cis men (Worthen, 2013). Whereas this might result in more accepting attitudes, lesbian women might also be taken less seriously (Worthen, 2013). This is reflected in Dutch television series (van Meer & Pollmann, 2022). In these series, lesbian women are, compared to gay men, represented with (even) less accuracy, more sexualized behaviors, and in less diverse roles (van Meer & Pollmann, 2022). As a consequence, the lesbian identity might not (or to a lesser extent) come up during conversations at home. By silencing the lesbian identity, parents could provide the heteronormative message that lesbian women are not considered important or serious (Martin, 2009). When both fathers and mothers silence this identity and thus show similar role model behavior, associations between parents and children of the same gender can be similar to parents and children of the opposite gender. Future studies should further examine how attitudes regarding lesbian women are transmitted to fully understand these gendered processes.

Nonverbal heteronormative messages of discomfort

Observing parents’ discomfort when discussing/talking about a coming-out vignette with their children provided the opportunity to examine the nonverbal heteronormative messages parents communicate to their children. Parental discomfort was observed among approximately half of the parents in varying degrees. Further, we found that parents in a same-gender dyad show more discomfort discussing coming outs. This could indicate that parents identify more with adolescents of the same gender (Niki-foridis et al., 2018). While providing advice about the gay or lesbian character in the coming-out vignette, they might therefore be more aware of how a child of the same gender receives their message, making them more uncomfortable. More research is needed to gain an understanding of these processes. In contrast to our expectations, however, we did not observe more discomfort when the gender of the target corresponded to both the gender of the parents and the child. It was not the case that parents showed more discomfort in discussing the coming-out vignette of a boy or girl. Whereas explicit homophobic attitudes about male and female gay or lesbian individuals differ, potentially subtle messages of parents do not. The latter would be in line with qualitative studies on the reactions of parents to the coming outs of their children. These studies show that although parents do react differently to the coming outs of male and female gay or lesbian individuals, in all cases showing discomfort to some degree is a common reaction (Kuhar & Švab, 2022).

Limitations

The current study has some limitations. First, due to its cross-sectional design, this study cannot provide insights into issues of causality. Future research would benefit from a panel design to investigate to what extent explicit homophobic attitudes of parents about same-sex kissing and having a gay or lesbian child cause homophobic attitudes in children over time. Second, as our sample was not representative (highly educated, White, nuclear families consisting of a father and a mother, mostly living in non-rural areas), we cannot generalize our findings to the general Dutch population. Previous studies show that negative attitudes toward gay or lesbian individuals vary among families with different backgrounds. For example, negative attitudes about gay and lesbian individuals are more common among families with lower social-economic status (Jaspers et al., 2008) and children from ethnic minorities (Bos et al., 2012). Third, we did not ask about the sexual orientation of parents and children, and whether or not they know each other's sexual orientation. This is a limitation because socialization in rainbow families is generally less heteronormative (McGuire et al., 2016; Sobočan & Brzić, 2013) and is therefore likely to affect observed parental discomfort in the coming-out vignette and homophobic attitudes of parents and children. Future studies should aim for more gender-inclusive samples (i.e., including rainbow families) to gain a more comprehensive understanding of these heteronormative socialization processes. Rainbow families are relevant in particular, as these families are known to socialize their children with messages that are more inclusive and less heteronormative (McGuire et al., 2016; Sobočan & Brzić, 2013). Examining attitude socialization processes among these families could therefore provide insight into how all parents can adopt these more inclusive strategies. Third, a methodological limitation is that we cannot determine to what extent observed parental discomfort is rooted in implicit heteronormativity or in general discomfort discussing these issues with adolescents who go through puberty. It could be that parents find this topic very important and therefore get nervous, especially while being videotaped, resulting in more observed nonverbal social discomfort. However, when this is the case, it could signal that parents are not fully at ease with the subject of coming outs and that these are therefore not discussed at home. We tried to limit this bias by comparing the observed parental discomfort in the coming out vignette with a range of other vignettes, including vignettes concerning promiscuity.

Further, this study examined explicit homophobic attitudes and observed parental discomfort. Yet, parents can communicate heteronormativity in various other ways (e.g., implicit and explicit gender talk; Martin, 2009). Future qualitative studies should examine the other ways how parents communicate heteronormative messages to their children with heteronormativity to get a full understanding of these socialization processes. Lastly, research has shown that bisexual, non-binary, and trans people experience different kinds of and often worse forms of marginalization than cisgender gay people (Huijnk, 2022). In future research, it would be good to extend the instruments to include other gender and sexual identities.

5.5 Conclusion

Even today, gay and lesbian individuals are still not treated equally nor fully accepted in society (Cosma et al., 2022; de Lange et al., 2022). Where previous studies examined to what extent negative attitudes of parents toward gay/lesbian individuals and rights are associated with their children's attitudes, this study focused on homophobic attitudes about encountering gay or lesbian individuals in people's direct environment and everyday life (i.e., same-sex kissing and having a gay or lesbian child) and on observed parental discomfort with coming-out vignettes in interactions with their adolescent children. Based on our findings, policies aiming at gay or lesbian inclusion in society should not be limited to accepting gay or lesbian identities in general, but pay more attention to the acceptance of expressions of same-sex intimacy (e.g., same-sex kissing), and having gay or lesbian family members. In doing so, parents' attitudes should be taken into account, as these appear to play a role in developing homophobic attitudes about gay or lesbian individuals in adolescents, thereby contributing to the continuous marginalization of these groups. Parents who want to normalize discussions about the lives of sexual minorities can be encouraged to become more aware of both verbal and nonverbal heteronormative messages they provide to their children.

5.6 Appendix

A Full ANOVA table and formula for partial omega squared

Table 5.6: Full Three-Way Split-Plot ANOVA Table for the Effects of Gender of the Second Child, Vignette, and Parent

Variable	Formula Component	SS	df	MS	F	p
Second Child	A	0.00	1	0.00	0.00	.947
Vignette	B	0.05	1	0.05	0.11	.744
Parent	C	0.62	1	0.62	1.20	.274
Second Child × Vignette	AB	0.03	1	0.03	0.06	.813
Second Child × Parent	AC	2.15	1	2.15	4.17	.043
Vignette × Parent	BC	0.24	1	0.24	0.46	.496
Second Child × Vignette × Parent	ABC	0.05	1	0.05	0.09	.763
Error (Subjects)	Subject/A	95.36	190	0.50		
Error (Parent × Subjects)	C × Subject/A	98.21	190	0.52		

Formula for partial omega squared (Kroes & Finley, in press):

$$\frac{SS_{AC} - (df_{AC} \times MS_{C \times \text{subject}/A})}{SS_{AC} + SS_{C \times \text{subject}/A} + SS_{\text{subject}/A} + MS_{\text{subject}/A}}$$

With A representing the effect of the gender of the second child, C representing the effect of parent gender, and AC representing the interaction effect.



Chapter 6

General discussion

6.1 Beyond mere acceptance

Over the last decades, a variety of disciplines have studied general attitudes toward gender roles and sexual minorities. There has been less attention to socializing influences on heteronormative attitudes that go beyond mere acceptance of women's equality and sexual minorities (Croft et al., 2015; Takács & Szalma, 2016). The main aim of this dissertation was to provide more insight into how individuals, and adolescents in particular, are socialized with these specific attitudes. Based on the socializing agents' theory (Durkheim, 1897; Ultee et al., 2003), and gender schema theory (Bem, 1981, 1983), we examined heteronormative socialization across three levels in society: national circumstances (Chapter 2), secondary education (Chapter 3), and within the family (Chapters 4 and 5).

This concluding chapter is structured as follows. First, I will summarize and integrate the main findings of each empirical study and link these to the theoretical frameworks. Second, I will reflect on the limitations and strengths of the research methods used in these studies. Finally, I will provide the main conclusions of this dissertation and discuss the implications for a more inclusive society.

6.2 Summary and integration of findings

Heteronormativity is a key underlying construct for attitudes toward gender roles and sexual minorities. It is constructed and maintained across different levels of society (Habarth, 2014; Herz & Johansson, 2015). In the studies of this dissertation, we brought together theoretical insights from multiple disciplines, including sociology, gender studies, educational studies, and family studies. This interdisciplinary approach allowed us to examine various socializing agents and circumstances that can fuel heteronormative socialization. Further, we studied different embodiments of heteronormativity: heteronormative messages (Chapters 3 and 5), gender-stereotypic attitudes and interests (Chapter 5), and people's homophobic attitudes (Chapters 2 and 4). First, I will discuss our findings regarding the socializing circumstances and agents across levels of society. Second, I will integrate our findings for the different embodiments of heteronormativity studied in this dissertation: heteronormative messages and gender-stereotypic and homophobic attitudes.

Socializing agents: national circumstances, secondary education, and the family

According to the theory of socializing agents, individuals' attitudes are influenced by exposure to socializing agents (Sani Dotti & Quaranta, 2020; Scheepers et al., 2002). In addition, individuals are incorporated in the larger context (e.g., national political systems, and religious characteristics of a nation) which can set socializing circumstances that affect individuals' beliefs (Scheepers et al., 2002). In this dissertation, the socializing

influences of national circumstances (Chapter 2), secondary education (Chapter 3), and the family (Chapters 4 and 5) were examined.

On the national level, we examined to what extent national circumstances are related to the rejection of same-sex couples forming a family (Chapter 2). Numerous studies have examined to what extent national circumstances are related to the general acceptance of gay men and women, but international research on the specific issue of adoption by same-sex parents is still scarce (Sani Dotti & Quaranta 2020; Takács et al., 2016). Same-sex couples and their children still face discrimination in their everyday lives, harming their economic, emotional, and relational well-being (Levitt et al. 2020; Messina & D'Amore 2018). To decrease discrimination, it is crucial to identify the socialization factors that contribute to the denial of equal adoption rights despite the formal legalization of this type of family in so many countries.

We aimed to add to this literature by examining to what extent stable socializing circumstances (persistent influence of former regimes) and more variable national circumstances (progressive laws on same-sex relationships) are related to the rejection of same-sex couples to forming a family across 29 European countries. First, we found that equal adoption rights for same-sex couples are more strongly rejected in countries that had communist, Nazi, or Fascist regimes in the past compared to countries with 'uninterrupted' democracies. Second, we found that progressive legislation seems to be a 'buffer' for the rejection of equal adoption rights. Among countries that legalized adoption by same-sex parents, same-sex marriage was relevant in predicting less rejection of equal adoption rights. We found that the 'buffer' effect of progressive laws on same-sex relationships seems to be stronger for younger cohorts and women. This suggests that this issue is currently still so sensitive that legislation affects mostly frontrunners: women and younger birth cohorts in countries with more progressive legislation on same-sex relationships. In conclusion, Chapter 2 shows that, in line with previous studies, same-sex couples forming families seems to be a sensitive topic today that strongly divides people in Europe (Sani Dotti & Quaranta, 2020). For both stable and more variable country characteristics, our findings underline the importance of going beyond the East-West dichotomy and examining differences in individuals' rejection of equal adoption rights among (western) European countries that legalized adoption by same-sex couples.

For secondary education, we examined to what extent textbooks convey gender-stereotypic and heteronormative messages (Chapter 3). Schools function as socializing agents and affect children's attitudes and behaviors (Gouvias & Alexopoulos, 2018). According to the theory of the hidden curriculum, children obtain informal knowledge throughout the environment of the school (e.g., through cultural messages provided by teachers, and peers, and through educational materials (Lee, 2014). Characters in educational materials help shape children's gender schemas because these characters invite children to identify with them (Lee, 2014). Studies on gender bias and heteronormativity in educational materials mainly focused on (English) language

textbooks for primary education (Koster et al., 2020). In Chapter 3, we added to this literature by examining gender-stereotypic and heteronormative messages in Dutch math and language textbooks for first-year secondary pupils. In line with the theory of the hidden curriculum, our results showed that female characters were structurally underrepresented in all textbooks but overrepresented in household tasks, EHW (Education, Health, and Welfare) professions, and parental roles. Male characters were overrepresented in occupational roles, especially in STEM (Science, Technology, Engineering, and Math) professions, technical tasks, and among characters with disharmonious traits and behaviors (e.g., being angry, aggressive). We found no characters from sexual minorities in any of the textbooks. In conclusion, textbooks as socializing agents convey gender-stereotypic messages about social roles, occupational roles, social-emotional traits and behaviors, and heteronormativity.

In addition to socialization at the school level, the family as a socializing agent is crucial for children's gender attitudes because this is where children's first gender-related experiences are incorporated into their gender schemas (Bem, 1981; Endendijk et al., 2018). Within the family context, we examined to what extent parental characteristics are related to adolescents' gender-stereotypic attitudes and interest in HEED occupations (Chapter 4) and homophobic attitudes (Chapter 5). In addition, we examined implicit heteronormative parental messages (Chapter 5). Studies on gender-stereotypic occupational interest and attitudes largely focused on STEM (Science, Technology, Engineering, Math) occupations (Croft et al., 2015). Yet, studies on the reasons why men do not aspire to a career in HEED occupations are scarce (Beutel et al., 2019; Meeussen et al., 2020; Olsen et al., 2022). This is unfortunate, as male representation in HEED domains can reduce labor shortage in this field, reduce negative stereotypes about men in these roles, increase flexibility in societal gender norms, and provide varied role models for younger generations (Croft et al., 2015; Meeussen et al., 2020). We aimed to add to this literature by examining to what extent adolescents' stereotypic attitudes towards and interest in HEED occupations are related to their parents' gender-stereotypic attitudes, role model behavior, and socialization values. In line with gender schema theory (Bem, 1981, 1983), the present findings suggest that adolescents' gender-stereotypic interests in HEED careers seem likely to be induced by their gender-stereotypic attitudes towards these occupations. For boys, these attitudes seem to be predicted by mothers' gender-stereotypic attitudes and fathers' socialization values. For girls, these attitudes seem to be predicted by both mothers' and fathers' gender-stereotypic attitudes and role-model behavior. As socializing agents, parents also influence children's development of attitudes toward minority groups (Vollebergh et al., 2001). Studies on parent-child similarity in attitudes about gay or lesbian individuals focused on general attitudes toward gay/lesbian individuals. In Chapter 5, we aimed to add to this literature by examining to what extent the homophobic attitudes of parents are related to their children and observing parental discomfort with gay or lesbian issues. In line with gender schema theory (Bem, 1981, 1983), our results showed that parents' homophobic attitudes were associated with

their children's homophobic attitudes. For same-sex kissing and (imagining) having a gay son, these associations were stronger between parents and children of the same gender. Further, parental discomfort with coming-out vignettes occurred and was stronger when parents and children had the same gender, regardless of the gender of the vignette character. These findings suggest that parents as socializing agents seem to pass on homophobic attitudes toward expressing same-sex intimacy and having gay or lesbian family members and socialize their children with heteronormative messages.

In conclusion, the studies in this dissertation are in line with the notion that heteronormativity is present at multiple levels in society (e.g., within institutions, families, and individuals (Herz & Johansson, 2015). National circumstances are related to individuals' attitudes, and secondary education and parents provide heteronormative messages and play a role in developing children's gender-stereotypic and homophobic attitudes. These results are all in line with the notion of gender schema theory (Bem, 1981, 1983) stating that gender norms are culturally specific, and change over time. In the next two paragraphs, I will further discuss and integrate our findings for heteronormative messages and gender-stereotypic and homophobic attitudes.

Heteronormative messages

Heteronormative messages contain important information for children about sexual orientation. Whereas not explicitly incorporated in its label, heteronormative messages also include cues about what behaviors, interests, and issues are, based on their gender, perceived as normal (Kane, 2006; Ruiz-Cecilia et al., 2021). Gender schema theory (Bem, 1981, 1983) sheds light on how gender messages are processed by children in gender schemas, i.e., cognitive structures containing gender-related information based on cultural norms that influence children's attitudes, behavior, and identities. Heteronormative messages can become part of children's gender schema and influence gender-stereotypic beliefs, interests, and perceptions about sexual minorities (Bem, 1981; Martin, 2008). We aimed to add to the literature by examining to what extent two socializing agents provide heteronormative messages about gender and sexual minorities to adolescents in the Netherlands: secondary education (Chapter 3) and parents (Chapter 5). Discussing the results of our study on textbooks for secondary education with the participating publishers made clear that gender-stereotypic messages are often included unconsciously by writers and publishers, illustrating the implicit nature of these messages. However, this seemed different for heteronormative messages about sexual minorities in textbooks. Publishers and writers were aware of the exclusion of LGBTQI+ characters in the textbooks we examined. As schools with strong religious signatures are often unwilling to expose their students to LGBTQI+ themes (Maussen & Vermeulen, 2015), it is more profitable for publishers to exclude LGBTQI+ characters.

In the family context, we found that parents provide nonverbal heteronormative messages to their children about gay and lesbian issues (Chapter 5). In line with

qualitative empirical studies (Martin, 2009; Solebello & Elliott, 2011), we found that these implicit heteronormative messages are related to gender. Parents showed more observed parental discomfort with gay and lesbian issues when they interacted with their child of the same gender. However, we did not find differences in observed parental discomfort between vignettes with gay compared to lesbian children. These descriptive findings illustrate that also in quantitative studies, it is important to take the gender of the actors involved into account when examining heteronormative messages about gay or lesbian issues.

In conclusion, we found that heteronormative messages in secondary education and from parents can be hidden in plain sight: subtle but structurally present. Whereas some heteronormative messages seem to be cautious (e.g., excluding characters from sexual minorities from textbooks), others seem to be unconscious (e.g., parents showing discomfort while discussing gay or lesbian issues in interaction with their child). It is important to keep in mind that also unconscious messages of parents (e.g., assuming their child and others to be heterosexual, silencing sexual minorities) can provide powerful cues about what parents expect from children and what they perceive as normal (Martin, 2009).

Gender-stereotypic and homophobic attitudes

For gender-stereotypic attitudes and interest, we found that even among advantaged adolescents in a relatively gender-equal country such as the Netherlands, explicit gender-stereotypic attitudes about traditionally perceived feminine occupations and careers seem to induce gendered interest in these careers (Chapter 4). This finding seems to reflect the relatively high horizontal gender segregation in education compared to other Western European countries (EIGE, 2022). Regarding homophobic attitudes, we found variation across countries (Chapter 2) and individuals (Chapters 2 and 5). Compared to general attitudes toward gay and lesbian orientations, homophobic attitudes toward the expression of gay or lesbian intimacy and relations in the public and (personal) family sphere are more negative (Chapters 2 and 5). We found that explicit rejection of same-sex couples forming a family is, even today, widespread across European countries and that progressive laws on same-sex relationships mostly affect forerunners (Chapter 2). These findings illustrate that the persistent explicit rejection of this family type can be influenced by socializing circumstances (e.g., progressive laws on same-sex relationships), but that a lot remains to be done to decrease these negative attitudes. Further, we found that also in the Netherlands, homophobic attitudes toward same-sex kissing and potential gay or lesbian family members still exist and seem to be passed on from parents to children.

In line with queer and feminist theories, we found that gender plays a role in attitudes toward sexual minorities in multiple ways. First, we found that men and boys generally hold more homophobic attitudes than women and girls (Chapters 2 and 5).

Second, we found that separately examining attitudes toward gay and lesbian individuals is relevant when examining to what extent parents pass on their attitudes to their children (Chapter 5). Third, the extent to which socializing circumstances are related to the attitudes of men and women seems to vary. On the national level, progressive laws on same-sex relationships seem to affect women's rejection of same-sex couples forming a family, in general, more strongly compared to men's (Chapter 2). Within the family context, we found that parent-child similarities in homophobic attitudes toward same-sex kissing and having a gay son are generally stronger among parent-child dyads of the same gender (fathers and sons; mothers and daughters). In developing attitudes toward sexual minorities, boys seem to look at their fathers and daughters as their mothers. This finding is in line with the gender family process model (Endendijk et al., 2018), children observe available role models in their environment, especially role models of the same gender.

6.3 Limitations, strengths, and future research

The studies described in this dissertation have some limitations that need to be addressed. First, our family samples (Chapters 4 and 5) were not representative of the general Dutch population, limiting the generalizability of our findings. Most parents and children were highly educated, White, and lived in urban areas. Studies showed that gender-stereotypic and homophobic attitudes are weaker among these groups compared to people who are lower educated, belong to ethnic minority groups, and/or live in rural areas (Bos et al., 2012; Halpern & Perry-Jenkins, 2016; Huijnk, 2022). The focus on advantaged groups in the Netherlands was formulated over 15 years ago at the start of the longitudinal research project. Given that insights about inclusive sampling have changed considerably in the past decade, the choices would likely have been different now if the current study was not linked to an older design. Yet, our findings suggest that even among these more advantaged groups in the Netherlands, variation in gender-stereotypic and homophobic attitudes exists and could be passed on from parents to children. To get a more complete understanding of how these processes unfold in society as a whole, future research should focus on families of other backgrounds. In addition, future research could examine to what extent these processes of attitude transmission are present (and perhaps even stronger) among religious families (de Vries et al., 2022). It should be acknowledged, however, that recruiting less advantaged groups in society (e.g., groups with a lower social-economic background) is often more challenging, and requires different recruiting strategies (e.g., recruiting people face-to-face, Halpern & Perry Jenkins, 2016).

In addition, in our family studies (Chapters 4 and 5), we cannot determine if our sample includes people who do not identify with the sex/gender binary. When recruiting participants, we asked parents and children 'Are you a boy (man) or a girl (woman)?'.

In addition, we recruited families that consisted of a father and a mother. Excluding same-sex parents can contribute to the already pervasive and persistent marginalization of these groups (Lindqvist et al., 2021). The main reason for this focus is that the cross-sectional family studies in this dissertation were part of a larger longitudinal project. In previous waves of this study, the main aim was to examine gendered socialization processes among families consisting of a father a mother, and two children. To keep the samples of the following waves comparable to each other, the same inclusion criteria were used in the next samples. Families with same-gender parents or families in which parents and/or children do not identify with the sex/gender binary challenge traditional norms about gender and/or sexual orientation heteronormativity in their very existence (McGuire et al., 2016; Takács & Szalma, 2016). Consequently, gender socialization processes in those families can differ from families consisting of opposite-gender parents that identify with the gender binary (McGuire et al., 2016; Mendez, 2022). To examine the mechanisms of heteronormativity properly in the latter group, study samples should include a group of LGBTQI+ parents and children that is sizable enough do to robust statistical analyzes. Recruiting a sizable group was beyond the scope of the larger study.

Third, a methodological limitation is that all four studies in this dissertation are cross-sectional. Therefore, we cannot determine causality and conclude that socializing messages of national circumstances (e.g., progressive laws), secondary education, or parents affect adults' homophobic attitudes and adolescents' gender-stereotypic and homophobic attitudes. Future studies would benefit from longitudinal data, to gain insight into the individual changes and causality of these processes. In addition, qualitative research is needed to examine the gendered processes in which parents pass on gender stereotypic and heteronormative messages in depth. In doing so, the role of children themselves is relevant to take into account, as children are not passive receivers of gender messages (Groeneveld et al., 2022). From a young age, children actively reproduce and disrupt heteronormativity (Gansen, 2017). Qualitative observational studies accompanied by in-depth qualitative interviews could provide opportunities to examine how children observe gender-stereotypic and heteronormative messages and incorporate them into their own gender schema. In this type of research, paying special attention to children who belong to sexual minorities (or who are in the process of questioning their sexual orientation or gender identity) could add to our understanding of how parents can contribute to (or, instead be a buffer for) internalized homophobia (Feinstein et al., 2014).

Lastly, examining different embodiments of heteronormativity (attitudes, representation, gendered interests, nonverbal messages) is not only a strength. It is also a disadvantage for synthesizing the findings of this dissertation, as it is not possible to compare the socializing influences across socializing agents and circumstances (national circumstances, secondary schools, the family) at these levels. For example, it would have been valuable to examine specific attitudes (for example, toward same-sex kissing) across, and interactions between these levels to gain a more complete understanding

of how national circumstances, higher education, and the family each contribute to the socialization of people's attitudes. Yet, each study of this dissertation provided valuable insight into the socializing influences of gender stereotypes and heteronormativity that go beyond merely accepting sexual minorities and gender equality.

6.4 Practical implications

The four studies in this dissertation can add to our understanding of how people think about stereotypic gender roles and sexual minorities and how these attitudes can be passed on to adolescents and adults. In doing so, it can provide insights into how our society can become more inclusive regarding gender and sexual orientation. The practical implications of these studies point to the importance of challenging rigid gender norms and normalizing gay and lesbian expressions of intimacy and relationships.

For gender-stereotypic attitudes and roles, our findings highlight the relevance of reducing gender stereotypes about men in roles that are traditionally perceived as feminine. As children develop gender-stereotypical attitudes towards occupations from a young age, parents who want their children to develop their own talents and preferences rather than what society expects from them can be advised to challenge these norms when their children are still young (Solbes-Canales et al., 2020). The importance of doing so is captured in a powerful quote by Gloria Steinem *'I'm glad we've begun to raise our daughters more like our sons, but it will never work until we raise our sons more like our daughters'* (Miller, 2016). Our findings suggest that explicit and cautious gender-stereotypic attitudes regarding these careers still exist. Therefore, parents who want their children to develop their own interests and preferences can be encouraged to explicitly mention that these types of careers and roles are also for men and refer to male role models. Research-based interventions are needed to examine potential effects. It is important to note that parents challenging gender norms will not be enough to foster male engagement in these types of roles and occupations. Interventions are needed to tackle barriers at the societal level (e.g., by providing longer parental and paternal leave that are solely for fathers), organizational level (e.g., by allowing men and women to make use of family-friendly policies), and relational level (e.g. by improving men's self-confidence and efficacy in fathering (Meeussen et al., 2020). Fostering male engagement in traditionally female communal roles and occupations is important, as it can have positive consequences for men themselves, women (and other genders), children, and society as a whole (Meeussen et al., 2020). Amongst others, male representation in HEED domains can reduce labor shortage in this field, reduce negative stereotypes about men in these roles, increase flexibility in societal gender norms, and provide varied role models for younger generations (e.g., Croft et al., 2015; Meeussen et al., 2020).

Parents who want their children to hold positive attitudes toward sexual minorities rather than homophobic ones can be advised to critically evaluate their own attitudes toward these groups. In doing so, it seems relevant for parents to go beyond the acceptance of gay and lesbian people in general and to focus on how they feel about expressions of same-sex intimacy and potentially gay and lesbian family members. Parents can normalize these issues in various ways, for example by not assuming that their children (or other people around them) are heterosexual. This implicitly provides the message to the child that their parents consider other sexual orientations as normal, and that being heterosexual is not a given (Martin, 2009; Mendez, 2022). Further, parents who want to normalize same-sex intimacy in public can be advised to monitor their own (non)verbal reactions. Nonverbal reactions (e.g., showing uneasiness while encountering same-sex couples kissing) are visible and tangible to individuals from the LGBTQI+ community and can be perceived as a form of microaggression (Nadal et al., 2016). Knowing that these reactions are visible to LGBTQI+ individuals, it is likely that children can pick up these reactions from their parents as well. Normalizing these issues is not only important for parents who have children that are gay or lesbian (or bisexual, pansexual, or queer/questioning). Negative attitudes towards sexual minorities can predict homophobic and affirmative behaviors (Mereish & Poteat, 2015), and are therefore also important to reduce among parents of children that are heterosexual. As positive attitudes toward gay and lesbian individuals can only predict affirmative behavior toward these groups when they are strongly held (Mereish & Poteat, 2015), this message is also directed to parents who find themselves somewhat in the middle between homophobic and highly accepting attitudes.

When it comes to fulfilling parental roles, acknowledging the legitimacy of same-sex relationships by allowing couples to marry is important. Longitudinal studies examined how and the direction in which same-sex relationship legislation affects attitudes toward gay and lesbian individuals. These studies found that laws on same-sex relationships can have a powerful influence in shaping general attitudes toward gay and lesbian individuals (Aksoy et al., 2020). Therefore, a key policy implication is to urge policymakers to introduce and use legal institutions that protect same-sex couples from discrimination and make civil union, adoption, *and* marriage available for same-sex couples. At the time of the data collection of our study (2018), same-sex marriage was not legalized in Austria, Italy, Northern Ireland, and Switzerland. The fact that by now, except for Italy, these countries legalized same-sex marriage (ILGA, 2023) seems hopeful.

For socialization on the school level, it can be advised to make cautious choices about inclusion in textbooks. Publishers and schools that want to be more inclusive are recommended to be more critical in their selection of stories and role models in their books. As repetitive exposure to gender-stereotypic and heteronormative messages can affect adolescents' attitudes toward gender roles and sexual minorities (Good, 2010; Kricheli-Katz & Regev, 2020; Ruiz-Cecilia et al., 2021), this part of the curriculum may hinder children to fully develop their personalities, talents, and abilities. Together with

two of my co-authors on Chapter 3, I developed a tool for more inclusive textbooks (Van Veen et al., 2022). This tool was developed based on the request of publishers for an instrument to evaluate their own textbooks for other subjects and practical tips to improve diversity (in terms of gender, ethnicity, and LGBTQ+). Examples from practical tips were increasing (female, LGBTQ+) role models of color and representing characters from the LGBTQ+ community in everyday situations that everyone could recognize themselves in (e.g., being nervous for exams, enjoying a walk in the forest, parents doing groceries together). Hopefully, this tool accompanied by training on how to make textbooks more inclusive will contribute to textbooks that positively challenge gender stereotypes and provide role models that go beyond restrictive normative boundaries. Further, schools and teachers can be encouraged to make a cautious decision about what textbooks they choose and/or pay more attention to the representation of LGBTQI+ characters and gender stereotypes in other parts of the curriculum (e.g., reflecting on biases in textbooks, providing their own examples (Gouvias & Alexopoulos, 2018). More generally speaking, the fact that schools with a strong religious signature appear to be unwilling to expose their students to LGBTQI+ characters and demand textbooks without these minorities, provokes some critical societal questions. As this attitude makes it more profitable for publishers to exclude these groups from their materials altogether, religious schools also influence textbooks used throughout non-religious schools. According to Article 23 of the Dutch constitution, faith-based schools are funded and protected by the government (for a comprehensive explanation I refer to Maussen et al., 2015). Amongst others, this provides the religious school the freedom to express the fundamental orientation of the school (e.g., selecting staff and pupils, in choosing how to discuss sensitive topics and dress codes in the school) and freedom of internal organization (e.g., choosing their own teaching materials; Meussen et al., 2015). When the schools follow fundamental orientations that prescribe the exclusion or marginalization of the LGBTQI+ community and/or rigid gender roles, this freedom of the school can come into conflict with article 1 of the Dutch constitution and Article 28 of the Convention on the Rights of the Child. According to article 1 of the Dutch constitution, all citizens should be treated equally and discrimination based on religion, belief, political opinion, race, sex, or any other grounds is prohibited (Burri, 2022). Article 28 of the Convention on the Rights of the Child states that education should help children fully develop their personalities, talents, and abilities (UNESCO, 2017). Politicians and policymakers should take the latter into account when considering the tenability of Article 23 of the Dutch constitution.

6.5 Conclusion

This dissertation covered a series of studies on heteronormative and gender socialization across three different levels: national circumstances, secondary education, and the family. Focusing on the different levels of heteronormative socialization provided

insight into the way people think about gender roles and sexual minorities, and how socializing agents could potentially contribute to a more inclusive society. To promote inclusive attitudes, policymakers should try to move beyond increasing acceptance of general gender equality and gay and lesbian orientations. More specifically, they should look for ways to represent more counter-stereotypic role models and normalize the expression of same-sex relationships in the public and family sphere.

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Nederlandstalige Samenvatting

(Dutch Summary)

Ondanks dat overheden in veel Europese landen gendergelijkheid promoten en de positie van seksuele minderheden willen bevorderen, vormen traditionele normen over gender en seksuele geaardheid nog steeds barrières voor mensen om zichzelf te zijn. Deze normen begrenzen individuen in hun persoonlijke voorkeuren, interesse en het ontwikkelen van talenten. Mensen die van de traditionele gendernormen afwijken in hun gedrag of interesses (bijvoorbeeld mannen die werken in beroepen die traditioneel als meer vrouwelijk gezien worden) worden nog steeds gestigmatiseerd en gediscrimineerd (Croft et al., 2015). Ook worden bepaalde rollen en uitingen van seksuele minderheden, bijvoorbeeld gezinsvorming, nog steeds door het grote publiek afgewezen (Sani Dotti & Quaranta, 2020). Recente cijfers laten zien dat geweld tegen en discriminatie van seksuele minderheden in 2022 in zowel aantallen als ernst lijken te zijn toegenomen (ILGA, 2023). Als gevolg van stigmatisering en discriminatie hebben mensen die zich niet conformeren aan genderstereotiepe rollen en/of tot een seksuele minderheid behoren nog steeds een achtergestelde positie in de samenleving.

Hoewel Nederland relatief hoog scoort op de Gender Equality Index (derde in 2022; EIGE, 2022) is de horizontale gendersegregatie (de onevenredige verdeling van mannen in vrouwen in verschillende sectoren) in het onderwijs een van de hoogste in Europa. Ook zijn er nog steeds zichtbare verschillen tussen mannen en vrouwen in de beroepen en sociale rollen die zij vervullen (Van den Brakel et al., 2020). Daarnaast wordt Nederland vaak een homovriendelijk land genoemd en geprezen om de hoge acceptatie van seksuele minderheden (Huijnk, 2022). Nederland was het eerste land dat het huwelijk tussen twee mensen van hetzelfde geslacht in 2001 legaliseerde en was pionier op het gebied van adoptie voor stellen van hetzelfde geslacht (Sani Dotti & Quaranta, 2020). De grote meerderheid van de mensen in Nederland zegt homoseksuelen en lesbische vrouwen te accepteren (Huijnk, 2022). Deze acceptatie blijkt echter beperkt. Publieke uitingen van de seksuele geaardheid zoals twee vrouwen of twee mannen die elkaar in het openbaar zoenen zijn een stuk minder geaccepteerd. Dit geldt ook voor het hebben van een kind dat homo of lesbisch is (Huijnk, 2022). De consequenties van deze begrensde acceptatie zijn zichtbaar in de samenleving. homoseksuelen en lesbische vrouwen ervaren nog steeds vaker discriminatie en worden vaker slachtoffer van verbaal en fysiek geweld dan heteroseksuele individuen (Huijnk, 2022). Adolescenten die tot een seksuele minderheid behoren worden vaker gepest, voelen zich vaker ongelukkig en ervaren minder steun van hun familie dan heteroseksuele adolescenten (Huijnk & van Beusekom, 2021). Deze bevindingen laten zien dat er nog veel moet gebeuren om gendergelijkheid en inclusie van seksuele minderheden te bereiken. Om beter te begrijpen hoe individuen beperkt worden in hun persoonlijke voorkeuren, interesses en uitingen van hun seksuele geaardheid is het belangrijk om te onderzoeken hoe volwassenen en kinderen gesocialiseerd worden met normen over gender en seksuele geaardheid (Croft et al., 2015; Martin, 2009)

Wetenschappelijk onderzoek laat zien dat de nationale context, de school en het gezin een socialiserende invloed hebben op hoe individuen aankijken tegen de

algemene gelijkheid van vrouwen en mannen in de samenleving en de acceptatie van seksuele minderheden. Om discriminatie tegen te gaan en inclusiviteit te bevorderen is er meer nodig dan alleen deze algemene acceptatie (Blair et al., 2022; Buijs et al.; Croft et al., 2015; Meeussen et al., 2020). In feministische en queer literatuur wordt gewezen op de rol van heteronormativiteit: de alledaagse manieren waarop heteroseksualiteit en traditionele genderrollen worden gepositioneerd en gezien als normaal en natuurlijk (Habarth, 2014). Heteronormativiteit definieert de grenzen van sociaal aanvaardbare relaties en identiteiten, en is daarmee de bron van sociale druk op mensen om zich te conformeren aan normen over gender en seksuele geaardheid. Hiermee is heteronormativiteit het onderliggende construct van genderstereotiepe en homofobe houdingen en gedragingen tegenover seksuele minderheden. Het daarom belangrijk om meer inzicht te krijgen in hoe individuen gesocialiseerd worden met specifieke aspecten van gendernormen en normen over seksuele minderheden in de eigen en publieke omgeving van mensen (Blair et al., 2022; Meeussen et al., 2020).

In dit proefschrift staat daarom de volgende onderzoeksvraag centraal: In hoeverre worden individuen gesocialiseerd met heteronormativiteit en gendernormen door de nationale context waarin zij leven, door Nederlandse schoolboeken en binnen Nederlandse gezinnen? In dit proefschrift worden inzichten vanuit de sociologie, genderstudies en pedagogiek gebruikt. De hypothesen zijn getoetst in vier empirische studies. In deze studies is gebruik gemaakt van uiteenlopende invalshoeken en onderzoeksmethoden. Deze interdisciplinaire aanpak maakte het mogelijk om verschillende belichamingen van heteronormativiteit en gendernormen te onderzoeken.

Om de onderzoeksvraag te beantwoorden heb ik voornamelijk gebruik gemaakt van de *socializing agents* theorie uit de sociologie en de *gender schema* theorie uit de pedagogiek en gender studies. Volgens de *socializing agents* theorie van Durkheim worden mensen gesocialiseerd door blootstelling aan *socializing agents*: instituties of sociale groepen waar individuen deel van uitmaken (Durkheim, 1897; Ultee et al., 2003). Klassieke voorbeelden van *socializing agents* zijn de kerk en de school. Deze socializing agents beïnvloeden de normen, houdingen en gedragingen van individuen. Volgens theorieën uit de pedagogiek en genderstudies (Bem, 1981; 1983) worden kinderen al vanaf jonge leeftijd gesocialiseerd met sociale normen, waaronder normen over gender. Kinderen kunnen gezien worden als gender detectives: ze pakken overall signalen op over gender om de wereld om hen heen te kunnen begrijpen (Martin & Ruble, 2004). Wanneer kinderen herhaaldelijk de boodschap krijgen dat een bepaalde activiteit, interesse, gedraging of beroep vaker wordt toegewezen aan vrouwen, zullen zij dit categoriseren als 'vrouwelijk' in hun gender schema's. Gender schema's zijn cognitieve structuren die gender gerelateerde informatie bevatten (1981). Deze gender schema's hebben vervolgens invloed op hoe kinderen de wereld om hen heen zien, hun attitudes, identiteit en gedrag (Bem, 1981; 1983).

Socialiserende invloeden op landniveau

In hoofdstuk 2 van dit proefschrift richtten we ons op de socialiserende invloeden van de nationale context. We keken naar de houding van individuen ten opzichte van lesbische en homostellen die een gezin vormen in 29 Europese landen. Volgens Mannheim (1936; Scheepers et al., 2002) vormt de bredere context waarin individuen leven (zoals politieke systemen en religieuze kenmerken van een land) socialiserende omstandigheden die een invloed hebben op de houdingen van mensen. Deze omstandigheden verschillen tussen landen en culturen en kunnen veranderen over de tijd (Van den Akker et al., 2013). Ik verwachtte dat zowel kenmerken van landen die over de tijd meer stabiel zijn (de doorwerkende invloed van voormalige regimes) als kenmerken van landen die meer over de tijd veranderen (een minder progressieve wetgeving voor relaties tussen mensen van hetzelfde geslacht) zouden samenhangen met de houding van individuen ten opzichte van gelijke adoptierechten voor lesbische en homo stellen. Daarnaast verwachtte ik dat de verbanden tussen progressieve wetten voor relaties tussen mensen van hetzelfde geslacht en de afwijzing van de gelijke adoptierechten sterker zouden zijn voor mannen (in vergelijking met vrouwen) en individuen uit jongere leeftijdsgroepen (in vergelijking met oudere leeftijdsgroepen).

Om de hypothesen te toetsen maakten we gebruik van data van de European Social Survey (2018-2019). In totaal bestond onze dataset uit 29 landen en 40.494 individuen. Uit de bevindingen bleek dat individuen in landen waarin voorheen communistische en Nazi/Fascistische regimes aan de macht waren, meer geneigd waren om gelijke adoptierechten voor lesbische en homostellen te verwerpen dan individuen in landen met een 'ononderbroken democratie' sinds 1920. Ook vonden we dat individuen in landen met minder progressieve wetgeving voor relaties tussen mensen van hetzelfde geslacht eerder geneigd waren om gelijke adoptierechten af te wijzen in vergelijking met individuen in landen met meer progressieve wetgeving op dit gebied. Daarbij vonden we ook verschillen tussen de landen waarin adoptie voor stellen van hetzelfde geslacht gelegaliseerd was. Individen waren minder geneigd om gelijke adoptierechten af te wijzen in landen waarin naast adoptie ook het huwelijk tussen mensen van hetzelfde geslacht gelegaliseerd was. Zoals verwacht bleken de verbanden tussen progressieve wetgeving voor relaties tussen mensen van hetzelfde geslacht en de afwijzing van gelijke adoptierechten sterker voor jongere leeftijdsgroepen. In tegenstelling tot onze verwachting bleek deze wetgeving sterker samen te hangen met de afwijzing van gelijke adoptierechten van vrouwen in vergelijking met die van mannen.

Socialiserende invloeden op school

In hoofdstuk 3 keken we naar de socialiserende invloeden van schoolboeken. Volgens de theorie van het 'hidden curriculum' leren kinderen naast het openlijk gespecificeerde formele onderwijsprogramma (het formele curriculum) ook dingen uit het curriculum die niet (openlijk) gespecificeerd zijn in het onderwijsprogramma (het verborgen cur-

riculum). Dit tweede deel van het curriculum is normatief en bekrachtigt de dominante overtuigingen, waarden en sociale normen in een samenleving (Giroux & Penna, 1979; Lee, 2014). Voorbeelden van hoe het curriculum dit kan doen is door bepaalde groepen in de samenleving vaker in tekst of op plaatjes te representeren, of in bepaalde rollen die van hen verwacht worden op basis van stereotypen.

Op basis van deze theorie en eerdere studies verwachtte ik allereerst dat vrouwen ondervertegenwoordigd zouden zijn in schoolboeken. Daarbij verwachtte ik dat deze ondervertegenwoordiging sterker zou zijn in schoolboeken voor wiskunde dan in Nederlands schoolboeken, omdat het vak wiskunde op basis van stereotypen als meer 'mannelijk' gezien wordt en talen meer als 'vrouwelijk' (Chaffee et al., 2020; Moser & Hannover, 2014). Ten tweede verwachtte ik een genderstereotiepe rolverdeling tussen mannelijke en vrouwelijke personages in sociale rollen en in sociaal-emotionele eigenschappen en gedragingen. Ten derde verwachtte ik een ondervertegenwoordiging van seksuele minderheden.

Om deze hypothesen te toetsen codeerden we in totaal 13 boeken voor het vak Nederlands en 12 boeken voor het vak wiskunde voor de brugklas. In totaal codeerden we 11.938 personages. De bevindingen lieten zien dat vrouwen inderdaad ondervertegenwoordigd waren in de schoolboeken. Tegen mijn verwachting in was dit sterker het geval in schoolboeken voor het vak Nederlands dan voor wiskunde. Daarnaast vonden we genderstereotiepe patronen in de rollen en gedragingen van de personages: vrouwen waren oververtegenwoordigd in zorg- en huishoudelijke taken thuis, terwijl mannen waren oververtegenwoordigd in beroepen (met name in STEM (Science, Technology, Engineering, Math)), technische taken en disharmonieuze emoties en gedragingen (bijvoorbeeld boosheid en agressie). In geen enkel boek vonden we personages die behoren tot seksuele minderheden.

Socialiserende invloeden in families

In hoofdstukken 4 en 5 keken we naar socialisatie binnen gezinnen. Volgens de 'gender schema' theorie van Bem (1981) internaliseren kinderen thuis hun eerste gendergerelateerde ervaringen in gender schema's (Endendijk et al., 2018). In de Nederlandse context hebben we gekeken naar de socialisatie van genderstereotiepe houdingen en interesses, homofobe houdingen en impliciete heteronormatieve boodschappen binnen gezinnen bestaande uit een vader, moeder en ten minste twee adolescenten.

In hoofdstuk 4 bestudeerden we de genderstereotiepe houdingen en interesses van adolescenten in 'HEED beroepen'. Dit zijn beroepen in de domeinen *Health Care* (bijvoorbeeld verpleegkundige), *Early Education* (bijvoorbeeld docent op de basisschool) en *Domestic* (bijvoorbeeld thuis de zorg voor de kinderen en het huishouden dragen). Op basis van de gender schema theorie verwachtte ik allereerst dat naarmate adolescenten een meer genderstereotiepe houding hadden over HEED beroepen, zij meer genderstereotiepe interesse in deze beroepen zouden hebben (dus: voor jongens

minder interesse, voor meisjes juist meer interesse). Daarnaast verwachtte ik dat zowel genderstereotiepe houdingen als interesses van adolescenten zou samenhangen met drie kenmerken van ouders: genderstereotiepe houdingen, rolmodelgedrag en opvoedingswaarden.

Om deze hypothesen te toetsen maakten we in hoofdstuk 4 gebruik van data van ons onderzoek naar gezinssocialisatie van adolescenten tussen 9 en 18 jaar. In totaal bestond onze dataset uit 501 gezinnen. De bevindingen lieten zien dat naarmate adolescenten een meer genderstereotiepe houding hadden ten aanzien van HEED beroepen, hun interesse in deze carrières ook meer genderstereotiep was (dus voor jongens minder interesse en voor meisjes juist meer interesse). Daarnaast vonden we dat jongens een meer genderstereotiepe houding ten opzichte van HEED beroepen hadden naarmate hun moeders een meer genderstereotiepe houding hadden en hun vaders het voor hen belangrijker vonden om erbij te horen dan helemaal zichzelf te kunnen zijn. Voor meisjes vonden we een meer genderstereotiepe houding ten opzichte van HEED beroepen naarmate hun beide ouders een meer genderstereotiepe houding hadden en hun moeder zelf in het HEED-domein werkzaam was. We vonden dat er maar weinig kenmerken van ouders gerelateerd waren aan de gender stereotiepe interesses van kinderen. Alleen voor genderstereotiepe taakverdeling van ouders vonden we een verband. Naarmate ouders een meer genderstereotiepe taakverdeling in het huishouden hadden, waren jongens minder geïnteresseerd in HEED-carrières.

In hoofdstuk 5 keken we ten slotte naar overeenkomsten tussen ouders en kinderen in homofobe houdingen en naar impliciete heteronormatieve boodschappen van ouders over uit de kast komen. Ik verwachtte op basis van de gender schema theorie (Bem, 1981; 1983) dat de homofobe houdingen van ouders positief zouden samenhangen met die van hun kinderen. Op basis van het *family process model* (Endendijk, 2018) verwachtte ik dat deze samenhang sterker zou zijn onder ouders en kinderen van hetzelfde gender. Daarnaast verwachtte ik dat non-verbale signalen van ongemak (bijvoorbeeld stotteren, oogcontract verbreken) van ouders zouden voorkomen wanneer zij het hadden over fictieve kinderen die uit de kast willen komen. Daarbij verwachtte ik dat deze signalen sterker zouden zijn wanneer het gender van de ouders, het kind en het fictieve kind uit het vignet overeenkwam.

Om deze hypothesen te toetsen maakten we in hoofdstuk 5 gebruik van data van ons onderzoek naar gezinssocialisatie van adolescenten tussen 14 en 18 jaar. We keken hierbij naar vragenlijstdata en observeerden het ongemak van ouders tijdens een vignettentaak. In totaal bestond onze dataset uit 199 gezinnen. De bevindingen lieten zien dat de homofobe houdingen van ouders over twee mannen of twee vrouwen die op straat zoenen en over het hebben van een zoon die homo is of een dochter die lesbisch is samenhangen met die van adolescenten. Voor houdingen over twee mannen of twee vrouwen die op straat zoenen en voor het hebben van een zoon die homo is vonden we dat de houdingen tussen ouders en kinderen sterker samenhangen voor ouders en kinderen van hetzelfde gender (dus tussen vaders en zoons en tussen

moeders en dochters). Daarnaast vonden we dat impliciete non-verbale heteronormatieve boodschappen (in de vorm van non-verbale signalen van ongemak) van ouders over fictieve kinderen die uit de kast wilden komen voorkwamen. Deze bleken sterker wanneer het gender van ouders en kinderen overeenkwam. Dit was onafhankelijk van het gender van het fictieve kind in het vignet.

Conclusie

Dit proefschrift levert een belangrijke bijdrage aan het begrijpen van hoe individuen gesocialiseerd worden met heteronormativiteit en gendernormen door drie socialiserende omstandigheden: de nationale context waarin zij leven, Nederlandse schoolboeken en binnen Nederlandse gezinnen. De resultaten van dit proefschrift laten zien dat al deze omstandigheden op hun eigen manier individuen met gendernormen en heteronormatieve boodschappen socialiseren: op het landelijk niveau lijken progressieve wetten van belang, in schoolboeken genderstereotiepe patronen en ondervertegenwoordiging van vrouwen en uitsluiting van seksuele minderheden en binnen gezinnen de overdracht van genderstereotiepe en homofobe houdingen. De resultaten laten ook zien dat er nog een lange weg te gaan is om inclusie op basis van gender en seksuele geaardheid te realiseren. Daarbij lijken zowel bewuste als onbewuste heteronormatieve boodschappen van belang om te blijven onderzoeken, en in beleid te adresseren. Om inclusiviteit op basis van gender te bevorderen, zouden beleidsmakers zich niet alleen moeten richten op de algemene acceptatie van gendergelijkheid maar ook op de acceptatie van mannen in beroepen en rollen die traditioneel gezien als meer 'vrouwelijk' gezien worden. Betreft inclusiviteit op basis van seksuele geaardheid lijkt het belangrijk om in beleid specifiek meer aandacht te geven aan het verhogen van de acceptatie van publieke uitingen van de geaardheid en relaties van seksuele minderheden. Meer vertegenwoordiging van contra-stereotiepe rolmodellen en het normaliseren van publiekelijke uitingen en relaties van lesbische vrouwen en homo mannen lijken daarbij van belang.

About the author

Curriculum Vitae
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Curriculum Vitae

Op 29 december 1992 werd ik, Tessa Marjolein van de Rozenberg, geboren in Wageningen. In 2004 ging ik naar het VWO aan het Rembrandt College in Veenendaal, waar ik in 2011 mijn VWO-diploma behaalde. Daarna begon ik aan mijn bachelor Sociologie aan de Radboud Universiteit in Nijmegen. Tijdens mijn bachelor liep ik stage bij het Verwey Jonker Instituut Utrecht. In 2015 startte ik met de Research Master *Social and Cultural Science: Comparative Research on Societies* aan de Radboud Universiteit. Gedurende mijn master heb ik extra vakken gevolgd in Gender Studies aan de Central European University in Budapest. Als docent gaf ik tussen 2015 en 2016 de cursussen onderzoek en onderzoeksmethoden aan de Radboud Universiteit en de Hogeschool Arnhem Nijmegen. Daarnaast werkte ik tussen 2016 en 2017 als student-assistent aan de Radboud Universiteit. Na mijn afstuderen startte ik in 2017 met mijn promotieonderzoek bij het interdisciplinaire onderzoeksproject *Girls in Science* onder leiding van Judi Mesman, Marleen Groeneveld en Lotte van der Pol. In dit promotietraject verdiepte ik mij in heteronormatieve socialisatie. Door gebruik te maken van inzichten en methoden uit de sociologie, genderstudies en pedagogiek onderzocht ik heteronormatieve en gendersocialisatie in vier empirische studies. De resultaten van dit onderzoek zijn in dit proefschrift beschreven. Samen met mijn collega Daudi van Veen won ik in 2020 de NWO Synergy Award. Dit gaf ons de mogelijkheid om met Judi Mesman een handleiding te ontwikkelen voor meer inclusieve schoolboeken. Momenteel werk ik als medior onderzoeker bij het CAOP (Centrum voor Arbeidsverhoudingen Overheidspersoneel) in Den Haag. Hier zet ik mijn brede interesse in onderzoek naar sociaal maatschappelijk relevante thema's, waaronder diversiteit en sociale ongelijkheid, voort.

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