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'Escape' from Home? The Moderating Role of Sexual Orientation on the Association Between Social Origin and Educational Attainment.

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**ABSTRACT** 

Previous research has documented that sexual orientation relates to educational attainment, and that it

might do so differently for men and women. In this paper, we investigate to what extent sexual orientation

moderates the relationship between social origin and educational attainment and whether the educational

premium among LGB people might be concentrated among individuals from lower socioeconomic

backgrounds. We propose, elaborate, and provide a theoretical underpinning for the 'Queer Habitus'

hypothesis which states that having an LGB identity can lead to weaker family-of-origin ties and disrupt

people's class habitus. These factors can lead LGB people from lower socioeconomic backgrounds to

pursue higher levels of education as compared to their heterosexual counterparts. Empirically, the paper

takes advantage of the oversampling of LGB individuals in the 2019 wave of the nationally representative

probability-based German Socio-Economic Panel study (SOEP; N = 15,746; LGB = 589). The findings

challenge the idea that educational premiums are limited to gay men by showing that both LGB men and

LGB women have higher educational attainment than their straight counterparts in Germany. Further,

this educational 'advantage' is moderated by social origin. The higher education of LGB people is

concentrated among those with disadvantaged social origin compared to straight individuals from similar

social backgrounds. Overall, this lends support to the 'Queer Habitus' hypothesis which argues that the

disruption of the heterosexual habitus by an LGB identity causes a weaker association of the social origin

on educational attainment.

Keywords: sexual Minorities, education, stratification, habitus, queer, LGB

Besides the typical trajectory of a young gay man who enters new social networks in the big city, [...], I also followed another, social trajectory, the path of an "up-and-comer," which can also be called a social defector." For I was, in a sense, a class refugee, more or less intent, in a more or less conscious way, on shedding my social origins, keeping them away from me and escaping the milieu of my

childhood."

- Didier Eribon, Retour à Reims (2016[2009]), p.23

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### **INTRODUCTION**

Families are not only a place of emotional support; families also transmit privileges or disadvantages (Jæger & Breen, 2016). This is especially true for the intergenerational transmission of education. It is *familial* cultural capital that is enhanced and, thus, more decisive for educational success than the knowledge acquired through schools (Jæger & Breen, 2016). Social origin is still the yardstick of all factors when it comes to one's own educational success (Bernardi & Gil-Hernández, 2021). Germany, in particular, with its deeply rooted ideology of "innate talent" (Powell & Solga, 2011), has a decades-spanning documented link between social origin and educational achievements (Betthäuser, 2020; Neugebauer, 2015).

Lesbian, Gay and Bisexual (LGB) people, however, generally have weaker ties to their families (Dewaele et al., 2011; Fischer, 2022). LGB individuals build closer ties to their friends (Dewaele et al., 2011; Fischer, 2022), their "family-of-choice" (Weston, 1991) in order to replace ambivalent relationships with their "family-of-origin." The weaker ties to the LGB individuals' family-of-origin may impact the educational pathways that LGB people take as they are less influenced by parental cultural capital, instead gaining access through their family-of-choice. Accordingly, we want to shed light on the question whether the intergenerational transmission of social class to educational attainment differs between LGB people and heterosexuals. We refer to LGB people because existing quantitative research on educational attainment, including this study, has not yet been able to look at other non-heterosexual identities (nor at gender identity) due to data limitations. However, we believe that many of the arguments made in this article could be applicable to other non-heterosexual identities too (as well as transgender and non-binary identities).

A large number of studies in diverse contexts show generally higher educational attainment among LGB individuals than among straight individuals in

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the United States (Badgett et al., 2021), Canada (Waite & Denier, 2015), the United

Kingdom (Arabsheibani et al., 2004), Sweden (Ahmed & Hammarstedt, 2010),

France (Laurent & Mihoubi, 2012), and Germany (Humpert, 2016; Kroh et al., 2017).

At the same time, only few studies have aimed to understand why this educational

advantage arises and whether this advantage might originate from specific

subgroups within the LGB population.

Some studies have focused on the moderating role of gender and find that

the educational advantage might be concentrated among gay men, and is less

applicable to lesbian women and bisexual people (Fine, 2015; Mittleman, 2022;

Mollborn & Everett, 2015; Walsemann et al., 2014). However, little attention has been

paid to the possible role of social origin. It may be that one explanation of the

educational differences of sexual minorities compared to the straight population lies

in the heterogenous effect of social class origins on educational attainment. One

previous study has found that upward educational mobility is higher among LGB

individuals across a variety of countries (Boertien et al., 2023). This provides a first

indication that social origin might moderate the relationship between social origin

and educational attainment. However, this previous study did not dive deeper into

social origin, both empirically and theoretically, where it relied on ad-hoc

explanations rather than theoretical considerations rooted in social stratification

research.

The current paper fills this gap by using core notions from social class

research to construct a theoretical foundation for explaining why social origin could

moderate the effect of sexual orientation on socioeconomic outcomes.

In his memoir, "Returning to Reims," Didier Eribon (2016) describes his

feelings of rejection and shame as a gay man with working-class origins and the urge

to escape from his working class background - especially because of the masculinity

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in general.

ideals that were marked with physical appearance of steeled muscles and rough physicality surrounding him at home. Precisely because of his sexual orientation as a gay man, he distanced himself from "home," not only geographically but also emotionally, as he entered the "gay world." Eribon (p. 26) asks himself to what extent his sexual orientation had given him the "opportunity" or the need to escape the socially disadvantaged working class: "I was a gay child, a gay adolescent, not a working-class child." Eribon's memoir focuses on his experience as a gay man, but the challenges imposed by heteronormativity are shared by non-heterosexual people

The experience of same-sex attraction and the related social tensions within the family, school and other environments can lead to situations where LGB people adjust their values, attitudes, and actions. This adjustment of the habitus can result in LGB people making different educational choices as compared to straight people (McDermott, 2011). Some LGB people might drop out of education to enter employment and deal with challenges that arise during adolescence or young adulthood (McDermott, 2011). Other LGB people might see education as a way out of possibly discriminatory environments, as a resource to deal with future discrimination (Barrett et al., 2002) or as necessary to access queer spaces (Barrett & Pollack, 2005; Rooke, 2007). Since people from higher social backgrounds generally have high educational expectations, a positive adjustment of the perceived benefits of education can be particularly relevant for LGB people from lower social backgrounds. Therefore, we propose the "Queer Habitus" hypothesis, which states that the formal higher education of minoritized sexual orientations can be primarily observed among those of lower social backgrounds due to a disrupted class habitus initiated by the development of their sexuality.

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Empirically, the paper contributes by using a broader operationalization of social

origin relying on occupational status, and by studying educational classifications

that are more tailored to the German context. The analysis is based on the nationally

representative and largest household panel survey in Germany, the Socio-Economic

Panel Study (SOEP), and its 2019 nationwide oversample of LGB households (sample

Q; Fischer et al., 2021), this study has two empirical advantages over existing research

in this field. First, because of the rich biographical information, including parental

information on occupational status, we make social class origin central to this study.

Second, because the data contain both single and partnered individuals, we can

account for the effect of partnerships and we can estimate the main effect of sexual

orientation regardless of partnership status.

We find that both LGB men and LGB women have higher educational

attainment than their straight counterparts in Germany. At the same time, the

educational premium of LGB people is concentrated among those with a

disadvantaged social origin compared to straight individuals from similar social

backgrounds. In addition, our results suggest there could even be an educational

penalty among LGB people of advantaged social origin. Overall, this lends support

to the 'Queer Habitus' hypothesis which argues that the disruption of the

heterosexual habitus by an LGB identity causes a weaker association of social origin

with educational attainment.

THEORETICAL BACKGROUND & LITERATURE REVIEW

Whereas qualitative research has addressed issues at the intersection of

class, gender, and sexuality (Barrett & Pollack, 2005; Rooke, 2007) quantitative

research has only recently started to look at the interaction between sexuality and

gender when studying the educational outcomes of LGB people (Fine, 2015;

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Mollborn & Everett, 2015). Lesbian and bisexual women show lower educational

attainment than heterosexual women, while gay men, but not bisexual men, have

higher educational attainment than heterosexual men (Mittleman, 2022). It is

possible that men who identify as gay are higher educated because the college

experience itself increases the willingness to disclose a non-heterosexual orientation

in surveys (Barrett & Pollack, 2005). However, Mittleman (2022) challenges this

assumption by showing that higher grades and completion rates are also visible

within the group of gay men who attend college. Arguably, this shows that sexual

orientation - rather than an effect of college attendance on "being "out" - exerts an

impact on educational attainment (Mittleman, 2022).

These findings are in contrast to some analyses suggesting that a later age of

coming out is associated with greater educational success among gay men (Barrett

et al., 2002; Pearson & Wilkinson, 2017, 2018). Gay men who come out during puberty

have a greater risk of being disadvantaged in their school careers because they have

to deal with (covert) homophobia much earlier (Pearson & Wilkinson, 2017): "the

only way for gays overall to be overachievers would be for gays who delay [their

coming-out] to be very strong overachievers" (Barrett et al., 2002, p. 178). However,

McQuillan (2017) provides evidence that individuals with a "stable" gay identity (e.g.

gay teenagers who are already out in adolescence and continue to identify as gay

later in life) do not perform worse than heterosexuals.

In short, it is plausible that an advantage in educational success of gay men

exists net of any selection processes that may occur. For lesbian women, an

educational advantage is only found among older cohorts who presumably came out

later in adulthood. This reverses for younger cohorts in the United States, with both

bisexual and lesbian women being less likely to graduate from college than

heterosexual women, a conclusion that also holds for bisexual men (Mittleman,

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2022). We know much less about the intersection of gender and sexuality in

countries beyond the United States.

Hegemonic gender norms

One possible explanation for educational differences between men and

women may lie in hegemonic gender norms that boys and girls are socialized into

(Morris, 2011). Girls are socialized according to a "good girl" stereotype, which

demands them to be quieter and interested in reading, compared to boys for whom

academic disinterest and physical activities are linked to normative masculinity

(Morris, 2011). This "bad boy" norm is particularly prevalent in working-class

cultures (Barrett & Pollack, 2005). Competitiveness as hegemonic masculinity

behavior also applies to boys from middle and upper classes, however in a more

nuanced way than the more physical demonstrations of "strength" found in the

working-class (Barrett & Pollack, 2005; Morris, 2011).

Sexual minorities differ in the pressure that hegemonic gender norms places

on heterosexual boys and girls in their socialization, as other stereotypes related to

gender are prevalent due to sexuality (Klysing et al., 2021). Because gay boys are

confronted with marginalized masculinities, they fail to conform to those

hegemonic masculinity behaviors in order to "prove" their masculine gender to

others. Therefore, heterosexual boys are likely to achieve lower educational levels

than gay boys because high achieving at school would violate heterosexual

hegemonic gender norms. Distance from hegemonic masculinity may further

encourage gay boys to achieve high academic success, which may be a way to

(over)compensate for lack in self-worth due to stigma and threats; a phenomenon

that Pachankis & Hatzenbuehler (2013) calls "the best little boy in the world"

(McQuillan, 2017; Pachankis et al., 2017). As other masculinities feel unattainable,

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gay men may be more likely to try to achieve high educational degrees because this

competitive self-mastery and, thus, a "masculine proof" may seem more manageable

in order to later attain prestigious careers (Mittleman, 2022; Pachankis et al., 2017).

In contrast, lesbian and bisexual girls may feel less compelled to "do

femininity" than heterosexual girls (Pearson & Wilkinson, 2017, pp. 563-564). This

distance from the so-called "good girl" norm potentially leads to lower academic

achievement among lesbian and bisexual girls than heterosexual girls (Fine, 2015;

Mollborn & Everett, 2015; Walsemann et al., 2014). Academic achievement among

sexual minority girls might be suppressed by the disparate treatment of school

authorities, especially for sexual minority girls "who enact 'masculine' styles of

speech, dress, and behavior," and thus are sanctioned by their "bad girl" performance

(Mittleman, 2022, p. 330). Girls who violate "good girl" norms are more likely to face

sanctions, like suspension, that may have a direct negative impact on their

subsequent academic success (Pearson & Wilkinson, 2018). Against this background,

we propose the first hypothesis.

Hypothesis 1: Sexual minority women are less educated than their straight

counterparts and sexual minority men are higher educated compared to straight

men.

Next, we deliberate why, in addition to gender, social origin is an equally

crucial characteristic that may moderate, and possibly explain, the educational

differences of sexual minorities in comparison to the heterosexual population.

Social Origin, Education, and the Disrupted Heterosexual Habitus

Education has always been at the center of the association between social origin

and destination to achieve social mobility (Breen, 2010). Nevertheless, a number of

studies point out that social origin not only remains the most relevant factor for

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educational inequality (Dumont et al., 2019) but that it also has a substantial direct

effect on income and social class destination (Bernardi & Gil-Hernández, 2021).

Cultural reproduction literature argues that it is not only financial and formal

access to educational institutions, but also the accumulated capital mediated by

habitus that determines which individuals pursue academic careers and which do

not (Jæger & Breen, 2016). Bourdieu (1990) argued that, through experiences in day-

to-day life, people interiorize a habitus that determines their taste, values and

actions (Dumont et al., 2019). Social origin shapes people's habitus through the

limits material factors pose to a person's environment (field), and also by a habitus

that can emerge at a collective level (Reay \*, 2004), such as a habitus related to

different social classes.

The middle and upper class habitus consists of a higher sense of entitlement,

while people from the working class do not have as much confidence in themselves

in later socialization (Calarco, 2011). Thus, the working class habitus evaluates

educational trajectories far from the familiar environment as too difficult, while

financial burdens appear too high, which is why working class individuals might

exclude themselves from where they are already excluded from (Swartz, 1997).

An individual's habitus is in constant interplay with the environment. Bourdieu

argued that when an environment is encountered that is not familiar and clashes

with a person's habitus, a disjuncture is created that can lead to change or

transformation of a person's habitus (Reay \*, 2004). Such a situation is likely to arise

when environments change rapidly or when people encounter new environments

(with a different "temporality"), which has been labelled hysteresis (Bourdieu, 1990).

Hysteresis can result in a state of reflexiveness where individuals aim to realign their

habitus to the new situation (Strand & Lizardo, 2017).

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Some scholars have argued that there is also a form of heterosexual habitus

(Degele, 2005; McDermott, 2011; Rooke, 2007). Therefore, non-heterosexual people

are more likely to encounter situations of reflexiveness as they challenge the

heterosexual habitus through their sexual orientation. The reflexivity that results

from these disruptions could also challenge aspects of people's habitus that have

been structured by social origin. Breaking the heterosexual habitus may lead to a

deliberate search for LGB safe spaces where the disrupted habitus can be realigned:

"in other words, 'gay' subjective dispositions can align with objective conditions

through safe relationships and spaces" (McDermott, 2011, p. 75). The realignment of

LGB people's habitus can alter values, attitudes and actions that challenge the class

habitus as safe spaces for LGB individuals are sought out.

There are different ways in which this realignment of the habitus can affect

the educational attainment of non-heterosexual people. On the one hand, the

challenges related to having a minoritized sexual identity can lead people to drop

out of education or focus on employment to be more independent. On the other

hand, the need to find LGB peers and "safe spaces" can increase the incentives to

invest in education. Given that individuals from middle and upper-class families

already hold positive attitudes towards education, a re-evaluation of the benefits of

education are likely to be primarily relevant for LGB people from lower social

backgrounds.

There are various mechanisms through which LGB people from working

class origins could obtain more positive attitudes towards education.

We suggest that one central mechanism breaking the class habitus of LGB

people is greater ambivalence with respect to relationships to LGB people's family-

of-origin (Dewaele et al., 2011; Fischer & Kalmijn, 2021), which might suppress the

reproduction of cultural capital (Dumont et al., 2019; Jæger & Breen, 2016). In fact,

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compared to straight individuals, LGB individuals are at greater risk of homelessness

(Tierney & Ward, 2017), are more likely to move away from their home region and

move out earlier (Fischer & Kalmijn, 2021), and have weaker ties and less frequent

contact to their family-of-origin (Fischer, 2022; Kasprowski et al., 2021). Weaker

family ties might not only affect social support structures for resilience, as gay and

bisexual men rely less on their family-of-origin and more on their family-of-choice

(Frost et al., 2016). Moreover, differences in family and friendship ties might devalue

the role of the parental cultural capital in the intergenerational transmission of

education, perhaps enhancing the role of social capital gained through their family-

of-choice. This would be one channel through which the class habitus is disrupted

by the sexual habitus. Yet, ambivalent relationships to the family-of-origin might

also translate into a loss of financial support for educational trajectories.

Consequently, for middle- and upper-class gay individuals, this might translate into

a loss of some privileges and possibly even relatively lower levels of education

compared to their heterosexual peers from high social origins.

An alternative mechanism that could increase the educational aspirations of

LGB people from working class families includes the attractiveness of environments

that can be accessed with educational degrees and the resources those provide. For

instance, educational attainment can be a way of investing in resources to deal with

future discrimination or to access jobs and neighborhoods that have lower levels of

discrimination (Barrett et al., 2002). This can be particularly relevant for LGB people

with a lower social origin as their environments are characterized by higher levels of

stigma and discrimination (Mollborn & Everett, 2015). Education, and the connected

social and economic resources, can also be regarded as necessary to access queer

spaces and middle-class lifestyles that are central to dominant representations of

queer culture (Barrett & Pollack, 2005; Rooke, 2007). For instance, queer spaces are

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often based in relatively expensive urban areas and some studies have shown how

working class LGB people encounter challenges integrating within LGB spaces

(Rooke, 2007).

In short, because LGB people challenge the heterosexual habitus, they encounter

situations where a realignment of their habitus can lead to change or transformation

(McDermott, 2011). In this process LGB individuals could be more likely to adjust

their educational path according to their need to find safe spaces in more educated

environments than the loss of financial support might affect their sense of

distinction (Calarco, 2011) already internalized through earlier socialization. As

individuals from higher social origins already have positive educational attitudes,

this mechanism might be relatively less relevant for them. However, if weaker family

ties are the main mechanism relating sexual identity to educational attainment, we

might even observe an educational penalty among LGB people from advantaged

backgrounds. In light of this we formulate the following hypothesis:

*Hypothesis 2:* The association of social origin on educational attainment is stronger

among heterosexual individuals than among sexual minorities ("Queer habitus

hypothesis").

This hypothesis differs subtly, but importantly, from hypotheses provided in

previous research. Most notably, the status attainment hypothesis poses that LGB

individuals might invest in education to accumulate resources to deal with future

adversity and discrimination (Barrett et al., 2002). This mechanism would lead to

high educational attainment among LGB individuals regardless of social origin

(rather than a generalized weaker association of social origin with education

produced by a premium among LGB people of lower social origin, but a penalty

among LGB individuals from advantaged backgrounds).

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Cultural reproduction in the German educational system

Germany is an ideal case to test the outlined relationships for several reasons.

Germany has a strong relationship between social class origin and educational

attainment (Betthäuser, 2020; Breen, 2010; Dumont et al., 2019; Neugebauer, 2015).

Although there are differences in the education system from state to state, Germany

is characterized by early stratification in the transition to the secondary education

system (Roth & Siegert, 2016). The early selection after grade four to six is legitimated

by the ideology of "innate talent," ascribing pupils either practical or theoretical

talents to recommend a specific school type (Powell & Solga, 2011). The highest

secondary school level ends after grade 12 or 13 with a general or a specialized higher

education entry certificate. For people with university entrance qualifications, the

vocational education system is highly standardized and similarly attractive

(Neugebauer, 2015). On the upper level, the tertiary system can be described as a

binary system. The tertiary education system splits into classical (state) universities

on one side and (public but also private) universities of applied sciences on the

other, while the latter are also accessible with a 12-year domain-specific higher

education certificate (Blossfeld, 2018).

This early and highly stratified school system with a high emphasis on

affordable public schools and universities with no tuition fees makes Germany an

ideal case to test differences in the cultural reproduction of straight individuals and

LGB people. Even though economic considerations are likely to still play a role in

the German context too, it might be more feasible for LGB people from

disadvantaged backgrounds to aspire to a university education than in contexts

where tuition fees form additional obstacles to break the heterosexual habitus.

The school system enables individuals from lower tracked schools to attend

"Berufskollegs" thereafter to gain high-school entrance certificates or to start

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studying after completing a vocational training. To earn these certificates there is

fully funded financial aid available that makes individuals more independent from

parent's financial support. Thus, in Germany, LGB people may also be more likely to

adjust their educational goals in later stages of life compared to their straight peers.

Method

Data

The data come from the German Socio-Economic Panel Study (SOEP) 2019

(De Vries et al., 2021). The SOEP is an annual household panel survey, conducted

since 1984, including around 20,000 Households and up to 30,000 individuals. In

more recent SOEP surveys, there are several improvements regarding sexual

orientation data compared to earlier versions. First, in 2016, a direct question about

the respondent's sexual orientation was introduced (Kroh et al., 2017), which allows

to study self-identified LGB people beyond partnered individuals. Second, in 2019,

SOEP surveyed an oversample of LGB(T) individuals. For this oversample (sample

Q), LGB individuals were identified by a random telephone screening of the entire

non-institutionalized adult population of Germany. Respondents were selected into

the boost sample by means of a self-reported sexual orientation question. The

screening resulted in a gross sample of 835 individuals, with a high response rate of

58.3 percent for the personal interviews (CAPI; De Vries et al., 2021). The final sample

size of 1,077 respondents and their inclusion into a high-quality probability-based

household survey allows, for the first time, for conducting differentiated and robust

comparative analyses among LGB people and heterosexual people in Germany. The

existing panel provides a large control group of straight individuals. Design and

survey weights are included separately for LGB and straight individuals to take into

account the probability of inclusion to the CATI screenings first by mobile phone

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and landline contact (design weights), followed by non-response weights that

consider the selective patterns of participating in the survey (De Vries et al., 2021).

Measures

Independent Variables: Sexual Identity and Gender

Sexual orientation is measured by the question "Would you describe yourself

as...?" Respondents could choose between heterosexual (that is, attracted to the

opposite sex); homosexual (gay or lesbian, that is, attracted to the same sex); bisexual

(that is, attracted to both sexes); other, namely..., and no answer / prefer not to say

(De Vries et al., 2021). We focus on heterosexual and LGB respondents as previous

research has shown that the other categories include considerable shares of

heterosexual people who do not understand the question or answer options (Elliott

et al., 2019). Gender is self-reported, but limited to binary answer options only

(woman or man). The boost sample from 2019 includes a non-binary instrument.

Since this is not the case for the existing panel in 2019, the sample is overall restricted

to men and women.

Independent Variable: Social Origin

Taking into account the sample size of LGB people, we make use of the

parsimonious specification of the parental International Socio-Economic Index of

occupational status (ISEI) to measure social origin (Ganzeboom et al., 1992). This

can be regarded as a more encompassing measure of social origin than parental

education, which has been used in previous research (Boertien et al., 2023), because

ISEI scores are based on both the average education and earnings off people in a

given occupation. Social origin is calculated as the average value of the combined

parental ISEI scores, because this approach is more accurate than the conventional

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dominance coding in continuous social origin measures while it also takes the other

parent's social status and, thus, their educational achievements into account

(Thaning & Hällsten, 2020). The ISEI ranges from 11 (low) to 89 (high). For example,

89 includes judges, whereas most working-class occupations reach up to roughly 40.

Dependent variable: education

Educational attainment is measured by the CASMIN classification. Relative

to the ISCED classification, CASMIN has a better and more pragmatic fit to estimate

the heterogeneity of education in Germany and is social class theory-driven (S. L.

Schneider, 2016). To preserve statistical power, CASMIN is divided into three major

groups: basic (casmin 1a-c) educational attainment, that is no educational certificate

up to basic vocational qualification, middle (casmin 2a-c) education, that is

intermediate vocational qualification up to general or vocational maturity

certificate, and high (casmin 3ab) educational attainment, that is at least a tertiary

education degree (Bachelor's or higher).

Control Variables

Age and birth cohort are included as control variables, because both are

predictors for educational attainment (Breen, 2010) and both affect the educational

advantage of sexual minorities from older cohorts (Mittleman, 2022; Pearson &

Wilkinson, 2017). The cohort variable is separated into five groups by ten years,

except for the oldest generation, which is the 1949 or older generations. The

reference category is the youngest cohort, 1980-1989. The design of cohort groups is

geared toward when most individuals have completed their educational attainment.

Therefore, the lower bound of the sample is restricted to those who are aged 30 or

older. Next, we consider urbanization, because individuals from urban areas are less

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likely to be college educated than those from suburban or rural areas (Fine, 2015).

Urbanization level is coded into four categories derived from the question or

information from the main residence during childhood at the age of 15. It ranges

from a rural area (less than 20,000 citizen), small town (20,001 to 100,000), urban

(100,001 to 500,000), up to a metropolitan area (more than 500,000). We control for

partnership status (binary coded), as it could be an important determinant of

disclosure of LGB status in the survey.

Sample and analytical strategy

The analytical sample comprises all observations that had no missing

information on the dependent, independent, and control variables. Furthermore, we

exclude the refugee oversamples of the household panel study to limit other sources

of educational disparities. Finally, we restrict the sample to individuals who do not

have any missing values for all covariates that are considered. This leaves us with a

sample of N = 15,746; LGB individuals = 589. The proportion of women and men

identifying as LGB people can be found in Table 1. All analyses use SOEP provided

survey weights that account for design selectivity and non-response outlined above

(De Vries et al., 2021). A replication package for all analyses can be found at OSF

(https://osf.io/3274j/ [doi: 10.17605/OSF.IO/3274J]).

<Table 1 & Table 2 here>

Main descriptive statistics separated by gender and sexual orientation are

shown in Table 2. First, the *hegemonic gender norms* hypothesis (H<sub>1</sub>) is tested by

ordered logit regression models explaining educational attainment by an interaction

of sexual identity with gender. Because no relevant interaction of gender and sexual

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identity is detected we use gender pooled models thereafter to test the 'Queer

habitus' hypothesis (H2; Table 3). The same is true for sexual identity, where we

combine LGB identities into a single variable (minoritized sexual orientation) to

increase statistical power.<sup>iii</sup> Second, to tackle the main question, the interaction of

social origin and sexual orientation, we run an ordered logit regression and present

the predicted probabilities on obtaining high educational attainment, that is

obtaining at least a tertiary educational certificate (Figure 1). In addition, we plot the

region of significance by applying Johnson-Neyman analysis (Figure 2). The models

control for gender, age, cohort, residence at childhood, and partnership status.

Finally, we check in additional analysis to what extent the relationship with families-

of-origin and moving away from the place of birth can explain our results.

**Results** 

The first important finding is that 33% of LGB individuals, but only 27% of

heterosexuals, attain tertiary education (t-test: P-value < 0.05; Table 2). We also see

that only 21% of LGB individuals has at most basic education, compared to 32% of

heterosexual individuals. Therefore, without considering covariates, the overall LGB

population is higher educated than heterosexuals in Germany. However, important

covariates that are associated with higher education also differ: The LGB population

is six years younger and a smaller proportion, compared to heterosexuals, is in a

relationship (Table 2). Both are relevant indicators associated with higher

educational attainment (Tables 3 and 4). Older individuals are less educated than

younger ones and partnered individuals are higher educated. This is in line with the

educational expansion that took place in all European countries in the second half

of the 20<sup>th</sup> century (Breen, 2010) and that partnered individuals are higher educated

(Wilson & Stuchbury, 2010).

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Hegemonic Gender Norms

Table 3 explains educational attainment by an interaction effect of gender

and sexual identity, surprisingly, there is no substantial gender interaction effect.

Therefore, we do not find support for the "hegemonic gender norms" hypothesis

(H1), which expects higher educational attainment for sexual minority men than for

heterosexual men, but lower educational attainment for sexual minority women

compared to heterosexual women. Robustness checks applying gender separated

models show the same results  $^{\mathrm{iv}}$  As a consequence, we restrict the rest of the analysis

to pooled models with gender as a control variable.

<Table 3 & 4 here>

Interaction of Social Origin and Sexual Orientation

In testing whether social origin might have a stronger effect on educational

attainment for heterosexuals than for sexual minorities, we find that an educational

advantage is only observed for LGB individuals from lower ISEI families. Firstly,

Table 4 shows that there is a statistically significant interaction effect of sexual

identity with ISEI: OR = 0.98, & *P*-value < 0.001. Figure 1 visualizes the interaction

effect and is based on the ordered logit model that includes the interaction effect, as

well as all control variables in Model 2 (Table 4). The figure shows that, for

heterosexuals, there is an almost exponential relationship between social origin and

obtaining higher education (but tends toward a plateau at the top of the

distribution). Among LGB individuals, there is an almost linear relationship between

social origin and educational attainment. As a consequence, we observe that the

educational premium related to having an LGB identity is only observed for

individuals from lower class backgrounds, concretely, for LGB people with a parental

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average ISEI score below 42 ( $\beta$  = -0.02, *P*-value <0.001). The effect size at lower levels

of ISEI is considerable. At an ISEI level of 23, for instance, 9.6% of straight individuals

reach tertiary education, compared to 18.5% of LGB individuals. Hence, the effect

size of 9% corresponds to almost double the probability of straight individuals.

<Figure 1 here>

Figure 2 presents a Johnson-Neyman plot which calculates for which parts of the

social origin distribution the interaction effect is significant. The plot shows that the

moderation is significant among working class individuals up to parental ISEI-scores

of 51.34 and (negative) for individuals stemming from upper classes (ISEI-Scores

between 82.25 and 89). This supports H2, the "queer habitus" hypothesis, which

expects a weaker association of social origin on educational attainment among

sexual minorities compared to the heterosexual population.<sup>v</sup>

In addition, although the confidence intervals of sexual minorities and

heterosexuals overlap at the upper ends of the ISEI social origin, it cannot be ruled

out that LGB individuals from higher ISEI families may have a slightly lower

probability of achieving high educational attainment relative to heterosexuals from

more upper class backgrounds (Bernardi et al., 2016). Because the Johnson-Neyman

plot shows that LGB individuals with privileged family backgrounds, beginning from

ISEI-scores of 82.25, likely receive lower educational attainment, we argue that there

could also be a smaller transmission of advantage among LGB individuals from

higher social origins. Thus, in general, we find support for the notion that the

association of social origin and educational attainment is stronger among

heterosexuals than among LGB individuals. In specific, the educational advantage

found among LGB people is concentrated among those sexual minorities with low

ISEI family backgrounds

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<Figure 2 here>

Our data is well-suited to study educational attainment, but cohort studies

that follow people through their educational careers might be better suited to

document the mechanisms at play. Nonetheless, we ran additional analysis with

available variables to gain some insight into mechanisms. These numbers, presented

in Appendix Tables 1-4, show that LGB individuals are more likely to move away

from their region of birth (especially among LGB individuals who grew up in more

rural parts) and visit their parents less as adults. These factors can explain 21% of the

differences in educational attainment between LGB and heterosexual people with

lower levels of parental ISEI. Even though these numbers support to some extent the

idea that links to family-of-origin are weakened among LGB individuals, one

complication is that these outcomes are measured during adulthood and might

therefore be the consequences of higher educational attainment, rather than vice

versa. For a subsample, we had information on how often respondents indicated

they had fights with parents until age 15. Half of LGB people reported fighting often

with their parents, compared to 29% of heterosexual people, suggesting that weaker

relations with families of origin are likely to have been present before transitioning

towards university.

The appendix also includes additional robustness checks where different

versions of the outcome variable were considered (lower educational attainment,

years of education) and show substantively very similar results.

Discussion

This study set out to investigate to what extent the relationship between

sexual identity and education is moderated by gender and social origin. Previous

studies have argued that "hegemonic gender norms" (H1) cause LGB men to be

higher, but LGB women to be lower educated than their heterosexual counterparts.

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Further, the here introduced "queer habitus" hypothesis (H2) focuses on the

intersection of social origin and sexuality, explaining the higher educational

attainment of sexual minorities based on the reflexivity resulting from a challenged

heterosexual habitus. Using novel SOEP data, we make the following central

findings:

With regard to the first hypothesis of 'hegemonic gender norms' (H1), we do

not find support for gendered differences in educational attainment in Germany.

This finding differs from that of previous research on the United States (Mittleman,

2022). Why do we find a different result in Germany? One possibility is that the

German school system sanctions gender-nonconforming behavior by sexual

minority girls less. Sanctioning has been argued to be a mechanism underlying the

lower educational attainment of lesbian and bisexual women in the US (Mittleman,

2022). Another possibility is that gender differences in education are smaller in

Germany in general. As observed in Table 1, there were barely any differences in

educational attainment between heterosexual men and women in our sample. This

absence of gender differences in educational attainment might also imply that other

processes related to gender play out less strongly in the German context. Future

research can investigate how the interaction between sexual identity and gender

develops in younger cohorts where the gender gap in education favors women more

strongly.

With regard to the second hypothesis, the "queer habitus" hypothesis (H2), we

find evidence for a stronger association of social origin on educational attainment

among heterosexuals. One explanation for this might be that LGB individuals from

lower class backgrounds who are socially immobile "remain in the closet" (Barrett &

Pollack, 2005; Mollborn & Everett, 2015). This would mean that the found higher

likelihood for high education among LGB individuals from the working-class is

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slightly overestimated. Previous research has addressed this possibility and

concluded that selection is unlikely to explain the educational premiums observed

for sexual minorities (Fine, 2015; McQuillan, 2017; Mittleman, 2022; Mollborn &

Everett, 2015). Appendix Table 5 shows that in our sample there are also no notably

differences in social origin between LGB and heterosexual people.

Instead, we argue for an alternative explanation for the higher educational

attainment among sexual minorities: The disruption of the heterosexual habitus can

lead to a re-evaluation of attitudes towards education and increase the perceived

benefits of education among LGB people from lower social backgrounds

(McDermott, 2011; Rooke, 2007). Because sexual minorities experience the need to

realign their habitus to the need to find "LGB safe spaces", they might be more likely

to pursue higher education.

It could be unsurprising that the educational "advantage" is concentrated among

LGB individuals from working class backgrounds for three reasons. First, all sexual

minorities are in need of finding LGB safe spaces. If such safe spaces are generally

easier to access through gaining high levels of education, and if gaining education is

part of the class habitus for individuals from advantaged social backgrounds, gaining

education might not contest the class habitus for them. Hence, the disruption of the

heterosexual habitus might more powerfully affect the class habitus of LGB

individuals from working-class origins (McDermott, 2011).

Second, a similar process might be put into motion if LGB individuals from

working class backgrounds experience a greater need to "escape" (Mollborn &

Everett, 2015) intolerant families and environments (Barrett & Pollack, 2005), which

would result in a greater motivation compared to heterosexual working-class people

to "invest" in their education.

Third, given their upper-class social origins, LGB people from such social origins

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However, we found some evidence that LGB individuals from the most advantaged

are more likely to pursue higher education regardless (Jæger & Breen, 2016).

social origins are *lower* educated than their heterosexual counterparts. This would

support the argument that weakened ties to the family of origin are an important

mechanism at play, as LGB individuals from higher social origins might have more

to lose from weakened ties. If upper class families normally protect their children

from downward mobility, also labelled as "compensatory advantage" (Bernardi &

Gil-Hernández, 2021), this "parachuting" could be disabled when ties to families-of-

origin are contested. We indeed observe that LGB individuals from the most

advantaged social origins are *lower* educated than their heterosexual counterparts.

Hence, the evidence presented in this paper shows that the link between social

origin and educational attainment is weaker among LGB individuals than among

heterosexual individuals.

Finally, LGB people might also attain education to accumulate resources to deal

with future discrimination (Barrett et al., 2002). Indeed, there are similarities

between LGB people and other disadvantaged groups in society who obtain high

levels of education but nonetheless have relatively low earnings such as women and

migrants. Previous studies have shown how migrants, and ethnic minorities have

high educational aspirations (Feliciano & Lanuza, 2017; Kao & Thompson, 2003) and

how girls outperform boys in school, particularly among children with a lower social

origin (Entwisle et al., 2007). Indeed, this observation underlines that high levels of

educational attainment could be interpreted as a reaction to experienced

disadvantage, rather than reflecting an advantaged position in society more

generally. However, the lower educational attainment among LGB individuals of

advantaged social origins suggests that increased incentives to attain education are

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not sufficient to explain the educational outcomes of LGB people. Future research

can investigate to what extent we also observe premiums among LGB people from

lower socioeconomic backgrounds when it comes to outcomes such as income or

status, and whether these premiums are also less visible among LGB people from

more advantaged backgrounds.

The found evidence must be contextualized within the German educational

system. LGB people are less dependent on their parent's economic capital compared

to other countries that have been studied like the US. In Germany, the educational

system, which struggles with traditionally high intergenerational transmission

(Breen, 2010), is comparatively favorable financially compared to the US. LGB people

may have more educational opportunities due to ambivalent family-of-origin

relations (Dewaele et al., 2011; Fischer & Kalmijn, 2021), as major financial support

from parents is less crucial for studying at state universities without tuition fees.

Hence, the higher educational chances for LGB individuals from lower ISEI origins

might be specific to Germany or contexts with no or low fees to access university.

Further cross-country comparisons could test this possibility in future research.

Initial evidence from a comparative study also found higher upward educational

mobility among LGB individuals in Australia, the UK, and the US (Boertien et al.,

2023). But more cross-nationally comparable data is needed to come to firmer claims

in that regard.

As with every study, some limitations remain. First, while there has never been

such a large and representative sample of LGB individuals in Germany, the sample

is still too limited to estimate differences between bisexual and gay individuals

without a loss of statistical confidence (see appendix). On the one hand, bisexual

individuals might be considered as more gender typical and less visibly identified as

part of a minoritized group. However, previous research has shown how bisexual

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individuals deal with particular stereotypes and have relatively low levels of earnings

and well-being (Mize, 2016). How these disadvantages play a role in educational

careers is less clear. In other words, the specific challenges faced by lesbian, gay and

bisexual individuals, as well as other sexual identities that were not part of this study

(e.g. queer, pansexual), should be an objective for future research. Second, because

the focus of the study was on the intersections of sexual orientation, gender, and

social origin, the call to consider the timing of outing (Fine, 2015; Mollborn & Everett,

2015; Pearson & Wilkinson, 2017) could not be answered here.

With regard to future research in this area, a priority would be to study the

proposed mechanisms of weaker family-of-origin ties and stronger family-of-choice

ties that might mediate the weaker association among sexual minorities through a

disrupted heterosexual habitus. Thus, if research finds support for underlying

mechanisms, the proposed theoretical framework might help to understand the

higher educational attainment within the context of (covert) homophobia and

would provide further evidence against a "pure" selection explanation for the higher

levels of education among LGB individuals (Barrett & Pollack, 2005; Mishel, 2019).

Even though qualitative research has already investigated the intersection

between class and sexuality (McDermott, 2011; Rooke, 2007) these mostly shed light

on the challenges that working class LGB people experience in the educational

system, such as the need to abandon education to gain greater independence.

Qualitative studies of upwardly mobile LGB people could greatly help understanding

the patterns we observe here, where LGB persons from lower social origins attain

high levels of education.

This study provides robust evidence of a weaker "origin-to-education"

association among sexual minorities. As it is argued that education is the major

mediator to foster social equality (Betthäuser, 2020; Breen, 2010), sexual minorities

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should be better off in labor market outcomes. Yet, sexual minorities face income penalties compared to heterosexual men (Drydakis, 2022) and face a "gay glass"

ceiling" in terms of higher social status positions (Aksoy et al., 2019). Therefore,

closer investigations of the other paths within the O-E-D (Origin-Education-

Destination) triangle should be investigated. Because the educational advantage of

LGB individuals is concentrated among those from lower working class

backgrounds, next to discrimination on the labor market (De Vries, 2021), it might

be that the "long shadow of social class" (Bernardi & Gil-Hernández, 2021; Laurison

& Friedman, 2016) overshadows the gay educational achievements and leads to

relatively low earnings in the labor market.

Finally, in light of ongoing debates about diversity, this study indicates that an

abbreviated understanding of diversity policies designed to help abolish

discrimination based on sexual orientation only, but overlooking intersectionality,

might not directly tackle the hidden mechanism of upper-classes cultural matching

and class discrimination processes. Although the relationship between social origin

and educational attainment is weaker for sexual minorities, straight upper-class

individuals remain privileged in educational attainment whereas for sexual

minorities, their sexuality seems to pose disadvantages compared to their upper-

class peers. Therefore, working-class LGB individuals, just like other working-class

individuals, would benefit greatly from policies aimed at abolishing class privileges

and fostering class equality. At the same time Anti-Discrimination policies and

funding for LGBT education programs would help LGB individuals to overcome the

challenges to find safe spaces.

#### References

- Ahmed, A. M., & Hammarstedt, M. (2010). Sexual orientation and earnings: A register data-based approach to identify homosexuals. *Journal of Population Economics*, 23(3), 835–849. https://doi.org/10.1007/s00148-009-0265-4
- Aksoy, C. G., Carpenter, C. S., Frank, J., & Huffman, M. L. (2019). Gay glass ceilings: Sexual orientation and workplace authority in the UK. *Journal of Economic Behavior & Organization*, 159, 167–180. https://doi.org/10.1016/j.jebo.2019.01.013
- Arabsheibani, G. R., Marin, A., & Wadsworth, J. (2004). In the pink: Homosexual-heterosexual wage differentials in the UK. *International Journal of Manpower*, 25(3–4), 343–354. https://doi.org/10.1108/01437720410541434
- Badgett, M. V. L., Carpenter, C. S., & Sansone, D. (2021). LGBTQ Economics. *Journal of Economic Perspectives*, 35(2), 141–170. https://doi.org/10.1257/jep.35.2.141
- Barrett, D. C., & Pollack, L. M. (2005). Whose Gay Community? Social Class, Sexual Self-Expression, and Gay Community Involvement. *The Sociological Quarterly*, 46(3), 437–456. https://doi.org/10.1111/j.1533-8525.2005.00021.x
- Barrett, D. C., Pollack, L. M., & Tilden, M. L. (2002). Teenage Sexual Orientation, Adult Openness, and Status Attainment in Gay Males. *Sociological Perspectives*, 45(2), 163–182. https://doi.org/10.1525/sop.2002.45.2.163
- Bernardi, F., Chakhaia, L., & Leopold, L. (2016). 'Sing Me a Song with Social Significance': The (Mis)Use of Statistical Significance Testing in European Sociological Research. *European Sociological Review*, 33(1), 1–15. https://doi.org/10.1093/esr/jcw047
- Bernardi, F., & Gil-Hernández, C. J. (2021). The Social-Origins Gap in Labour Market Outcomes: Compensatory and Boosting Advantages Using a Micro-Class Approach. *European Sociological Review*, 37(1), 32–48. https://doi.org/10.1093/esr/jcaa034
- Betthäuser, B. A. (2020). Left behind? Over-time change in the social mobility of children from unskilled working-class backgrounds in Germany. *Acta Sociologica (United Kingdom)*, *63*(2), 133–155. https://doi.org/10.1177/0001699319868524
- Blossfeld, P. N. (2018). Social Origin, Mobility Flows between Vocational and Academic Tracks and Highest Level of Educational Attainment. In *Changes in Inequality of Educational Opportunity* (Issue 4, pp. 129–170). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-22522-3\_6
- Boertien, D., Perales, F., & Pessin, L. (2023). Does intergenerational educational mobility vary by sexual identity? A comparative analysis of five OECD countries. *European Sociological Review*, 1–16. https://doi.org/10.1093/esr/jcad062
- Bourdieu, P. (1990). The logic of practice. Stanford university press.
- Breen, R. (2010). Educational expansion and social mobility in the 20th Century. *Social Forces*, 89(2), 365–388. https://doi.org/10.1353/sof.2010.0076
- Calarco, J. M. C. (2011). "I Need Help!" Social Class and Children'S Help-Seeking in Elementary School. *American Sociological Review*, 76(6), 862–882. https://doi.org/10.1177/0003122411427177
- De Vries, L. (2021). Diversität oder Diskriminierung im Management?: Diskriminierungserfahrungen, Outing, emotionales Wohlbefinden und Lebenszufriedenheit von lesbischen, schwulen und bisexuellen Führungskräften. *Arbeit*, 30(3), 215–237. https://doi.org/doi:10.1515/arbeit-2021-0016
- De Vries, L., Fischer, M., Kroh, M., Kühne, S., & Richter, D. (2021). SOEP-Core 2019: Design, Nonresponse, and Weighting in the Sample Q (Queer). *SOEP Survey Papers, Series C*(940).
- Degele, N. (2005). Heteronormativität entselbstverständlichen: Zum verunsichernden Potenzial von Queer Studies. Freiburger FrauenStudien: Zeitschrift Für Interdisziplinäre Frauenforschung, 11(17), 15–39. https://doi.org/10.25595/1717
- Dewaele, A., Cox, N., Van Den Berghe, W., & Vincke, J. (2011). Families of Choice? Exploring the Supportive Networks of Lesbians, Gay Men, and Bisexuals. *Journal of Applied Social Psychology*, 41(2), 312–331. https://doi.org/10.1111/j.1559-1816.2010.00715.x
- Drydakis, N. (2022). Sexual orientation and earnings: a meta-analysis 2012–2020. *Journal of Population Economics*, 35(2), 409–440. https://doi.org/10.1007/s00148-021-00862-1
- Dumont, H., Klinge, D., & Maaz, K. (2019). The Many (Subtle) Ways Parents Game the System: Mixed-method Evidence on the Transition into Secondary-school Tracks in Germany. *Sociology of Education*, 92(2), 199–228. https://doi.org/10.1177/0038040719838223
- Elliott, M. N., Dahlhamer, J. M., MacCarthy, S., Beckett, M. K., Orr, N., Guerino, P., Agniel, D., Saunders,

Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) license.

- C. L., Schuster, M. A., Ng, J. H., & Martino, S. C. (2019). Using Ancillary Sociodemographic Data to Identify Sexual Minority Adults Among Those Responding "Something Else" or "Don't Know" to Sexual Orientation Questions. *Medical Care*, 57(12). https://journals.lww.com/lww-medicalcare/fulltext/2019/12000/using\_ancillary\_sociodemographic\_data\_to\_identify.17.aspx
- Entwisle, D. R., Alexander, K. L., & Olson, L. S. (2007). Early Schooling: The Handicap of Being Poor and Male. *Sociology of Education*, 80(2), 114–138. https://doi.org/10.1177/003804070708000202
- Eribon, D. (2016). Rückkehr nach Reims. Suhrkamp Verlag.
- Feliciano, C., & Lanuza, Y. R. (2017). An Immigrant Paradox? Contextual Attainment and Intergenerational Educational Mobility. *American Sociological Review*, 82(1), 211–241. https://doi.org/10.1177/0003122416684777
- Fine, L. E. (2015). Penalized or privileged? Sexual identity, gender, and postsecondary educational attainment. *American Journal of Education*, 121(2), 271–297. https://doi.org/10.1086/679393
- Fischer, M. M. (2022). Social Exclusion and Resilience: Examining Social Network Stratification among People in Same-Sex and Different-Sex Relationships. *Social Forces*, 100(3), 1284–1306. https://doi.org/10.1093/sf/soab019
- Fischer, M. M., & Kalmijn, M. (2021). Do adult men and women in same-sex relationships have weaker ties to their parents? *Journal of Family Psychology*, 35(3), 288–298. https://doi.org/10.1037/famoooo696
- Fischer, M. M., Kroh, M., De Vries, L., Kasprowski, D., Kühne, S., Richter, D., & Zindel, Z. (2022). Sexual and Gender Minority (SGM) Research Meets Household Panel Surveys: Research Potentials of the German Socio-Economic Panel and Its Boost Sample of SGM Households. *European Sociological Review*, 38(2), 321–335. https://doi.org/10.1093/esr/jcab050
- Frost, D. M., Meyer, I. H., & Schwartz, S. (2016). Social support networks among diverse sexual minority populations. *American Journal of Orthopsychiatry*, 86(1), 91–102. https://doi.org/10.1037/ort0000117
- Ganzeboom, H. B. G., De Graaf, P. M., & Treiman, D. J. (1992). A standard international socio-economic index of occupational status. *Social Science Research*, 21(1), 1–56. https://doi.org/10.1016/0049-089X(92)90017-B
- Humpert, S. (2016). Somewhere over the rainbow: sexual orientation and earnings in Germany. *International Journal of Manpower*, 37(1), 69–98. https://doi.org/10.1108/IJM-03-2014-0080
- Jæger, M. M., & Breen, R. (2016). A Dynamic Model of Cultural Reproduction. *American Journal of Sociology*, 121(4), 1079–1115. https://doi.org/10.1086/684012
- Kao, G., & Thompson, J. S. (2003). Racial and Ethnic Stratification in Educational Achievement and Attainment. *Annual Review of Sociology*, 29(1), 417–442. https://doi.org/10.1146/annurev.soc.29.010202.100019
- Kasprowski, D., Fischer, M., Chen, X., De Vries, L., Kroh, M., Kühne, S., Richter, D., & Zindel, Z. (2021). LGBTQI\* people in Germany face staggering health disparities. *DIW Weekly Report*, 5–6, 42–50. https://doi.org/10.18723/diw\_dwr:2021-5-1
- Klysing, A., Lindqvist, A., & Björklund, F. (2021). Stereotype Content at the Intersection of Gender and Sexual Orientation. *Frontiers in Psychology*, 12, 1–16. https://doi.org/10.3389/fpsyg.2021.713839
- Kroh, M., Kühne, S., Kipp, C., & Richter, D. (2017). Einkommen, soziale Netzwerke, Lebenszufriedenheit: Lesben, Schwule und Bisexuelle in Deutschland. *DIW-Wochenbericht*, 84(35), 687–698.
- Laurent, T., & Mihoubi, F. (2012). Sexual Orientation and Wage Discrimination in France: The Hidden Side of the Rainbow. *Journal of Labor Research*, 33(4), 487–527. https://doi.org/10.1007/s12122-012-0145-x
- Laurison, D., & Friedman, S. (2016). The Class Pay Gap in Higher Professional and Managerial Occupations. *American Sociological Review*, 81(4), 668–695. https://doi.org/10.1177/0003122416653602
- McDermott, E. (2011). The world some have won: Sexuality, class and inequality. *Sexualities*, 14(1), 63–78. https://doi.org/10.1177/1363460710390566
- McQuillan, M. T. (2017). Educational Attainment and Sexual Orientation in Adolescent and Young Adult Males. In *Sociological Studies of Children and Youth* (Vol. 23, pp. 121–152). https://doi.org/10.1108/S1537-466120170000023007
- Mishel, E. (2019). Intersections between Sexual Identity, Sexual Attraction, and Sexual Behavior among a Nationally Representative Sample of American Men and Women. *Journal of Official Statistics*, 35(4), 859–884. https://doi.org/10.2478/jos-2019-0036
- Mittleman, J. (2022). Intersecting the Academic Gender Gap: The Education of Lesbian, Gay, and Bisexual America. *American Sociological Review*, 87(2), 303–335. https://doi.org/10.1177/00031224221075776

- Mize, T. D. (2016). Sexual Orientation in the Labor Market. *American Sociological Review*, 81(6), 1132–1160. https://doi.org/10.1177/0003122416674025
- Mollborn, S., & Everett, B. (2015). Understanding the educational attainment of sexual minority women and men. *Research in Social Stratification and Mobility*, 41(April), 40–55. https://doi.org/10.1016/j.rssm.2015.04.004
- Morris, E. W. (2011). Bridging the Gap: 'Doing Gender', 'Hegemonic Masculinity', and the Educational Troubles of Boys. *Sociology Compass*, 5(1), 92–103. https://doi.org/10.1111/j.1751-9020.2010.00351.x
- Neugebauer, M. (2015). The Introduction of Bachelor Degrees and the Under-representation of Students from Low Social Origin in Higher Education in Germany: A Pseudo-Panel Approach. *European Sociological Review*, 31(5), 591–602. https://doi.org/10.1093/esr/jcv061
- Pachankis, J. E., & Hatzenbuehler, M. L. (2013). The Social Development of Contingent Self-Worth in Sexual Minority Young Men: An Empirical Investigation of the "Best Little Boy in the World" Hypothesis. *Basic and Applied Social Psychology*, 35(2), 176–190. https://doi.org/10.1080/01973533.2013.764304
- Pachankis, J. E., Hatzenbuehler, M. L., Mirandola, M., Weatherburn, P., Berg, R. C., Marcus, U., & Schmidt, A. J. (2017). The Geography of Sexual Orientation: Structural Stigma and Sexual Attraction, Behavior, and Identity Among Men Who Have Sex with Men Across 38 European Countries. *Archives of Sexual Behavior*, 46(5), 1491–1502. https://doi.org/10.1007/s10508-016-0819-y
- Pearson, J., & Wilkinson, L. (2017). Same-Sex Sexuality and Educational Attainment: The Pathway to College. *Journal of Homosexuality*, 64(4), 538–576. https://doi.org/10.1080/00918369.2016.1194114
- Pearson, J., & Wilkinson, L. (2018). School Experiences and Educational Opportunities for LGBTQ Students. In B. Schneider (Ed.), *Handbook of the Sociology of Education in the 21st Century* (pp. 193–218). Springer International Publishing. https://doi.org/10.1007/978-3-319-76694-2
- Powell, J. J. W., & Solga, H. (2011). Why are higher education participation rates in Germany so low? Institutional barriers to higher education expansion. *Journal of Education and Work*, 24(1–2), 49–68. https://doi.org/10.1080/13639080.2010.534445
- Reay \*, D. (2004). 'It's all becoming a habitus': beyond the habitual use of habitus in educational research. *British Journal of Sociology of Education*, 25(4), 431–444. https://doi.org/10.1080/0142569042000236934
- Rooke, A. (2007). Navigating Embodied Lesbian Cultural Space: Toward a Lesbian Habitus. *Space and Culture*, 10(2), 231–252. https://doi.org/10.1177/1206331206298790
- Roth, T., & Siegert, M. (2016). Does the selectivity of an educational system affect social inequality in educational attainment? Empirical findings for the transition from primary to secondary level in Germany. *European Sociological Review*, 32(6), 779–791. https://doi.org/10.1093/esr/jcw034
- Schneider, S. L. (2016). The Conceptualisation, Measurement, and Coding of Education in German and Cross-National Surveys. *GESIS Survey Guidelines. Mannheim, Germany: GESIS Leibniz Institute for the Social Sciences.* https://doi.org/10.15465/gesis-sg\_en\_020
- Strand, M., & Lizardo, O. (2017). The Hysteresis Effect: Theorizing Mismatch in Action. *Journal for the Theory of Social Behaviour*, *47*(2), 164–194. https://doi.org/10.1111/jtsb.12117
- Swartz, D. (1997). Habitus: A Cultural Theory of Action. In *Culture & Power: The Sociology of Pierre Bourdieu*. (pp. 95–116). University of Chicago Press.
- Thaning, M., & Hällsten, M. (2020). The End of Dominance? Evaluating Measures of Socio-Economic Background in Stratification Research. *European Sociological Review*, *36*(4), 533–547. https://doi.org/10.1093/esr/jcaa009
- Tierney, W. G., & Ward, J. D. (2017). Coming Out and Leaving Home: A Policy and Research Agenda for LGBT Homeless Students. *Educational Researcher*, 46(9), 498–507. https://doi.org/10.3102/0013189X17733964
- Waite, S., & Denier, N. (2015). Gay Pay for Straight Work. *Gender & Society*, 29(4), 561–588. https://doi.org/10.1177/0891243215584761
- Walsemann, K. M., Lindley, L. L., Gentile, D., & Welihindha, S. V. (2014). Educational Attainment by Life Course Sexual Attraction: Prevalence and Correlates in a Nationally Representative Sample of Young Adults. *Population Research and Policy Review*, 33(4), 579–602. https://doi.org/10.1007/s11113-013-9288-3
- Weston, K. (1991). "Families We Choose" Chapter 5. In *Families we choose: Lesbians, Gays, Kinship* (pp. 390–411). New York Columbia University Press.
- Wilson, B., & Stuchbury, R. (2010). Do partnerships last? Comparing marriage and cohabitation using longitudinal census data. *Population Trends*, 139(1), 37–63. https://doi.org/10.1057/pt.2010.4

<sup>&</sup>lt;sup>i</sup> This option was only part in SOEP-Q.

<sup>&</sup>lt;sup>ii</sup> For robustness checks of the small sample sizes, we also calculate all analyses using a continuous approach (years of education). This leads to similar results.

iii We test all models by separating bisexuality from homosexuality and by a gender interaction. As the sample sizes are small and both bisexuality and homosexuality show for women and men mostly same direction towards higher education, we decided to use gender pooled models for the social origin interaction and follow-up analyses and also pool bi- and homosexuality. All models and figures are in the supplementary appendix.

iv See in the supplementary appendix.

The same is true when we apply the analyses by a categorical operationalization of Erikson-Goldthorpe-Portocarero; however, the continuous approach is more robust due to the smaller sample sizes and illustrates the differences by social origin more directly. All analyses also based on the continuous operationalization of education, years of education, instead of casmin, confirm the general trends and the interaction effect.

Table 1. Sexual Orientation and Gender Identity of the Sample

sexual orientation	n	men		women		Total	
	No.	%	No.	%	No.	%	
straight	7,032	95.9	8,125	96.5	15,157	96.3	
gay/lesbian	209	2.9	109	1.3	318	2.0	
bisexual	88	1.2	183	2.2	271	1.7	
Total	7,329	100.0	8,417	100.0	15,746	100.0	

source: Socio-Economic Panel study v.36

**Table 2.** Descriptive Statistics / Row means

Tuble 2. Descriptive statistics / I	Straight	LGB	Range	Range
Variables	N= 15,157	<i>N</i> = 589	Low	High
Education (casmin)				
basic (1abc)	0.32	0.21***	0	1
middle (2abc)	0.42	0.46	0	1
high (3ab)	0.27	0.33*	0	1
Social origin (ISEI; SD)	41.39 (15.82)	41.39 (16.19)	11	90
Women	0.51	0.47	0	1
Age (SD)	56.52 (15.42)	50.14 (14.31)***	18	88
Cohort				
1980-1989	0.18	0.30***	0	1
1970-1979	0.17	0.21	0	1
1960-1969	0.24	0.22	0	1
1950-1959	0.20	0.13**	0	1
1949 or older	0.22	0.14***	0	1
Main residence at childhood				
big city	0.24	0.29	0	1
urban	0.18	0.17	0	1
small town	0.23	0.24	0	1
rural	0.35	0.30	0	1
Partnered	0.77	0.62***	0	1
Contact to family <sup>a</sup>	0.43	0.25***	О	1
Contact to friends <sup>a</sup>	0.36	0.46**	O	1
Ever moved away	0.53	0.69***	0	1

*Notes*: Weighted using SOEP-provided weights, SOEP v.36(2019). Two-tailed t-tests compared to straight: \*\*\* p<0.001, \*\* p<0.05. a 1 - weekly or more often; o - monthly or more rarely

Table 3. Ordered Logit Models regressing educational attainment (casmin) on sexual orientation and gender

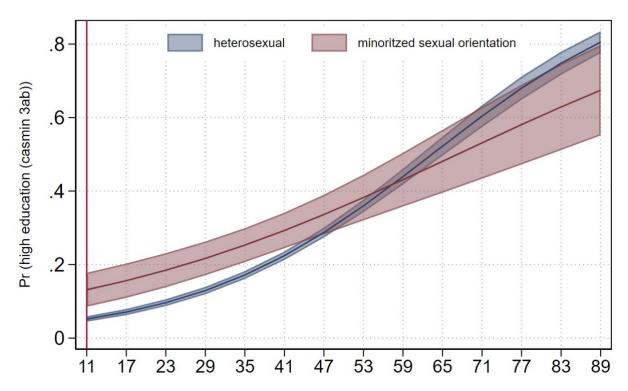
	M	odel 1	Model 2		
Variables	b (SE)	Odds Ratio	b (SE)	Odds Ratio	
LGB	0.36**	1.44**	0.35	1.41	
	(0.13)	(0.19)	(0.20)	(0.28)	
Women	0.02	1.02	0.02	1.02	
	(0.05)	(0.05)	(0.05)	(0.05)	
LGB x women			0.04	1.04	
			(0.25)	(0.26)	
Social origin (ISEI)	0.05***	1.06***	0.05***	1.06***	
-	(0.00)	(0.00)	(0.00)	(0.00)	
Age	-0.03***	0.97***	-0.03***	0.97***	
	(0.01)	(0.01)	(0.01)	(0.01)	
Cohort (Ref: 1980-89)					
1970-79	0.12	1.13	0.12	1.13	
	(0.11)	(0.12)	(0.11)	(0.12)	
1960-1969	0.17	1.19	0.17	1.19	
	(0.15)	(0.18)	(0.15)	(o.18)	
1950-1959	0.40	1.49	0.40	1.49	
	(0.21)	(0.32)	(0.21)	(0.32)	
1949 or older	0.36	1.43	0.36	1.43	
	(0.31)	(0.44)	(0.31)	(0.44)	
Residence at childhood (Ref. metropolitan)					
Urban	-0.04	0.96	-0.04	0.96	
	(0.08)	(o.o8)	(o.o8)	(0.08)	
Small town	-0.08	0.92	-0.08	0.92	
	(0.07)	(0.06)	(o.o7)	(0.06)	
Rural/Country side	-0.07	0.94	-0.07	0.94	
	(0.07)	(0.06)	(o.o7)	(0.06)	
Partnered	0.23***	1.26***	0.23***	1.26***	
	(0.06)	(o.o8)	(0.06)	(0.08)	
/cutı	-0.03	0.97	-0.04	0.96	
	(0.29)	(0.28)	(0.29)	(0.28)	
/cut2	2.11***	8.24***	2.11***	8.23***	
	(0.29)	(2.39)	(0.29)	(2.39)	
Pseudo R <sup>2</sup>	0.11		0.11		

*Notes*: SE = Standard Errors; Odds Ratios: Robust seeform in parentheses. \*\*\* p<0.001, \*\* p<0.05. Controlled by social origin, age, cohort and residence at childhood.

**Table 4.** Ordered Logit Models regressing educational attainment (casmin) on sexual orientations and social origin

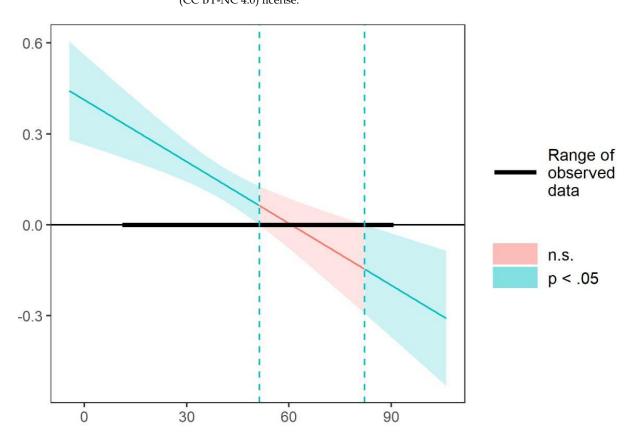
	Model 1		Model 2	
Variables	b (SE)	Odds Ratio	b (SE)	Odds Ratio
LGB	0.36**	1.44**	1.26***	3.52***
	(0.13)	(0.19)	(o.27)	(0.96)
Women	0.02	1.02	0.02	1.02
	(0.05)	(0.05)	(0.05)	(0.05)
LGB x social origin (ISEI)			-0.02***	0.98***
			(0.01)	(0.01)
Social origin (ISEI)	0.05***	1.06***	0.06***	1.06***
	(0.00)	(0.00)	(0.00)	(0.00)
Age	-0.03***	0.97***	-0.03***	0.97***
	(0.01)	(0.01)	(0.01)	(0.01)
Cohort (Ref: 1980-89)				
1970-79	0.12	1.13	0.12	1.13
	(0.11)	(0.12)	(0.11)	(0.12)
1960-1969	0.17	1.19	0.17	1.19
	(0.15)	(0.18)	(o.15)	(0.18)
1950-1959	0.40	1.49	0.40	1.49
	(0.21)	(0.32)	(0.21)	(0.32)
1949 or older	0.36	1.43	0.35	1.42
	(0.31)	(0.44)	(0.31)	(o.43)
Residence at childhood (Ref. metropolitan)				
Urban	-0.04	0.96	-0.04	0.96
	(0.08)	(0.08)	(0.08)	(0.08)
small town	-0.08	0.92	-0.07	0.93
	(0.07)	(0.06)	(0.07)	(0.06)
rural/country side	-0.07	0.94	-0.06	0.94
	(0.07)	(0.06)	(0.07)	(0.06)
Partnership	0.23***	1.26***	0.24***	1.27***
	(0.06)	(0.08)	(0.06)	(0.08)
/cutı	-0.03	0.97	0.03	1.03
	(0.29)	(0.28)	(0.29)	(0.30)
/cut2	2.11***	8.24***	2.18***	8.83***
	(0.29)	(2.39)	(0.29)	(2.57)
Pseudo R <sup>2</sup>	0.11		0.11	

*Notes*: SE = Standard Errors; Odds Ratios: Robust seeform in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05. Controlled by gender, age, cohort, partnership and residence at childhood.



**Figure 1.** Interaction models: The plot shows the predicted probabilities of sexual orientation on obtaining high education (casmin<sub>3</sub>ab) across a range of the moderator social origin (parental ISEI) with 95% confidence intervals.

*Note*: Sample Size: overall = 15,746; Heterosexuals = 15,157; sexual minorities = 589. Controls: gender, age, birth cohort, partnership status and residence at childhood.



**Figure 2.** Johnson-Neyman plot: The plot shows the regions-of-significance for the interaction of social origin and sexual orientation predicting high educational attainment (casmin 3ab). Confidence bands represent 95% confidence intervals. Variable presented on the X-Axis is social origin, measured as parental ISEI.

*Note*: Sample Size: overall = 15,746; Heterosexuals = 15,157; sexual minorities = 589. Controls: gender, age, birth cohort, partnership status and residence at childhood.