

"I wish I could say, 'Yeah, both the same": Cultural stereotypes and individual differentiations of preservice teachers about different low socioeconomic origins

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Abstract

Previous studies have shown that (preservice) teachers have more negative stereotypes toward students from lower socioeconomic backgrounds than toward students from higher socioeconomic backgrounds. School-specific studies on different low socioeconomic origins have been non-existent so far. Evidence collected in nonschool settings shows that welfare recipients are stereotyped more negatively than the working poor. This mixed methods study therefore surveyed cultural stereotypes and individual constructions of difference concerning the working poor and welfare recipients by German preservice teachers. In the quantitative study (N=196), more stereotypes were mentioned in relation to welfare recipients than to the working poor, and more negative and fewer positive stereotypes were mentioned in relation to welfare recipients. In addition to social status, the individual characteristics (e.g., commitment) of welfare recipients were more frequently stereotyped negatively than those of the working poor. In the qualitative interview study (N=10), preservice teachers reported that the general public perceives welfare recipients more negatively than the working poor. Preservice teachers who obtain their information about welfare recipients from public perception attributed individual failure (e.g., low commitment) as the cause for welfare recipients and structural failure (e.g., incorrect decisions by policy-makers) as the cause for the working poor. Other preservice teachers disagreed with the negative public perception based on personal experience and described welfare recipients as only being in a worse social position than the working poor. The results of the mixed methods study reveal the need to distinguish between different low socioeconomic origins in future stereotype studies.

Keywords Stereotypes \cdot Doing difference \cdot Mixed methods \cdot Preservice teachers \cdot Socioeconomic status \cdot Welfare

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1 Introduction

In Germany, socioeconomic status (SES) and educational success are connected. Students with low SES are less likely to attend high schools (in Germany: Gymnasien) and universities than students with higher SES (Dumont et al., 2019; Neugebauer et al., 2013; Reimer & Pollak, 2010; Schindler & Lorz, 2012). To explain these inequalities, Boudon (1974) introduced the primary and secondary effects. Primary effects mean differences in performance and competence depending on social background. Secondary effects relate to education-related decisions (e.g., the choice between vocational training or studying) depending on social background. Esser added the tertiary effects, which can be understood as "stereotyped expectations of teachers with consequences for their efforts and evaluations in marks and recommendations according to the social origin of the children." (Esser, 2016, p. 100). Several studies have shown that (preservice¹) teachers' perspectives are more negative with regard to low SES students than to high SES students (Hunt & Seiver, 2018; Tobisch & Dresel, 2020).

As we know that stereotypes are associated with distorted performance expectations and evaluations of teachers (Gentrup et al., 2018; Lorenz et al., 2016; Martiny & Froehlich, 2020), it is necessary to address these stereotypes at the beginning of teacher training at university. Such university teaching approaches can contribute to reducing stereotypes (Kumar & Hamer, 2013; Stephens et al., 2022). However, focusing exclusively on stereotypes on the construct of SES, which is often determined by the interaction of education, income, and occupation (Ditton & Maaz, 2015; Ganzeboom et al., 1992), prevents a deeper look at the diversity of life's realities in low socioeconomic spheres of life and their perception (Hunt & Seiver, 2018).

Among low SES individuals, welfare recipients can be distinguished from the working poor, who are defined as living below the poverty line (less than 60% of the median income) without receiving welfare (Lohmann & Groh-Samberg, 2018; Marx, 2020). Since 2005, various welfare benefits have been combined under the name "Arbeitslosengeld 2" (Unemployment benefits) in Germany (Schweiger, 2010). The primary recipients of these benefits are the long-term unemployed (usually for longer than 12 months).² Colloquially, these welfare benefits are referred to as "Hartz-4" benefits. In our study, we use the term welfare recipients to refer to recipients of "Arbeitslosengeld 2" ("Hartz-4"). Studies in non-school settings have

¹ In the context of this study, we understand preservice teachers as students at a university to become a teacher. Teacher education in the Federal Republic of Germany is the responsibility of each of the 16 federal states (Craig, 2016). As a result, there is a high degree of variation in how teacher training is structured in Germany. In principle, however, similar structural features can be identified across the federal states: Teacher training is divided into two phases. The first phase includes studying at a university, and the second phase means (usually 1.5 years) practical teacher training at schools. The course of study is usually structured in the bachelor's and master's system and comprises ten semesters (Drahmann, 2020).

 $^{^2}$ Not all of the 3,516,000 welfare recipients ("Hartz-4") in Germany are unemployed. A main distinction can be made between unemployed welfare recipients (41%) and other status groups, receiving welfare (59%). Other status groups include, among others, employed persons receiving a salary supplemented by welfare (14%) or persons attending school, university or vocational training (10%) (Bundesagentur für Arbeit, 2022). The exact distribution can be seen in the Appendix in Table 4.

shown that poor people and welfare recipients are archetypes of negative stereotypes (Asbrock, 2010; Bye et al., 2014; Cuddy et al., 2007). More specifically, however, welfare recipients face even more negative perceptions than the working poor (Suomi et al., 2020, 2022). This difference in perceptions is also discussed against the backdrop of a societal moral line that distinguishes between (perceived) unemployed welfare recipients who take advantage of the state and the more integrated working poor who do not receive welfare benefits (Fiske & Durante, 2019; Schofield et al., 2019).

Building on these findings from a non-school context, our explorative mixed methods research project investigated if and how preservice teachers also differentiate between these low SES origins. The findings provide a deeper insight into the perceptions of low SES and constitute a starting point for further research projects examining teacher actions toward students from both groups. Insights into the stereotypes of preservice teachers make it also possible to develop university teaching concepts that contribute to a reduction of those possibly different stereotypes towards the working poor and welfare recipients during studies and thus before practice as a teacher.

2 Theoretical approach

Stereotypes here are understood as generalized knowledge about the characteristics of members of social groups such as the working poor (Eagly & Chaiken, 1993). In this context, the individual characteristics of the stereotyped subjects are relegated to the background, as the generalized knowledge about the social group is ascribed to the members of that group (Eagly & Mladinic, 1989). Stereotypes can be understood as the cognitive component of attitudes (Eagly & Chaiken, 1993) and can be divided into unconscious implicit and conscious explicit knowledge (Fazio & Olson, 2003; Martiny & Froehlich, 2020). The contents and valences of stereotypes are not fixed. Instead, the contents of stereotypes can differ, and they can have negative, neutral, and positive valences (Bonefeld & Karst, 2020; Fiske et al., 2002; Opario & Fiske, 2003). According to Fiske and Neuberg's continuum model, information processing by individuals ranges between a quick category-based (and stereotype-based) evaluation and a more time-intensive individual response (Fiske & Neuberg, 1990; Fiske et al., 2018).

Stereotypes can be divided into individual and cultural levels. Cultural stereotypes describe shared, consensual knowledge, while individual stereotypes describe individual knowledge (Cuddy et al., 2007; Eagly & Mladinic, 1989). Studies that ask participants about cultural stereotypes rather than individual stereotypes also do so to prevent social desirability (Fiske et al., 2002). Findor et al. (2020) summarized based on experimental studies that cultural stereotypes represent a perceived social consensus which has been shown to have a validating effect on individual stereotypes (Lyons & Kashima, 2001; Sechrist & Stangor, 2001). Although individuals may deny following culturally shared stereotypes, it can be assumed that they are (unconsciously) influenced by them (Cuddy et al., 2007). However, experimental studies have also shown that participants' responses vary depending on whether they are asked about cultural or individual stereotypes (Findor et al., 2020; Kotzur et al., 2020). Based on these results, capturing stereotypes at both the cultural and individual levels seems useful.

In the school context, most studies focus on the individual stereotypes of (preservice) teachers toward students with different SES. Tobisch and Dresel (2020) showed that preservice teachers in Germany were more likely to ascribe positive characteristics to students overall. However, students with a high SES were rated as significantly more ambitious, hardworking, intelligent, focused, and less aggressive, sloppy, and unreliable than low SES students. In another study, Glock and Kleen (2020) showed that preservice teachers in Germany were more likely to associate students with high SES with high language skills, a high ability, and good work habits. In another study conducted in Germany by Dunkake and Schuchart (2015), preservice teachers rated students with low-class origins as more aggressive, lazy, undisciplined, and unmotivated than students with middle-class origins, among other factors. No differences were found in another study on the explicit attitudes of teachers toward students with differently educated parents (Pit-ten Cate & Glock, 2018). Nevertheless, differences were found concerning their implicit attitudes regarding the advantage of students with higher-educated parents. In terms of possible differences in the stereotypes of preservice teachers and practicing teachers, Pitten Cate and Glock (2019) showed in their meta-analysis that implicitly expressed stereotypes did not differ between teachers and preservice teachers. Studies have shown that teacher education can help reduce individual preservice teachers' negative stereotypes about minority students such as students with low SES or migration background (Kumar & Hamer, 2013; Stephens et al., 2022).

Gentrup et al. (2018) showed that stereotype-based assumptions from teachers in Germany about students with low SES explained corresponding negative performance expectations towards these students. Other studies from Germany have also shown that teachers have lower performance perceptions and expectations for low SES students than for higher SES students (Brandmiller et al., 2020; Lorenz et al., 2016; Tobisch & Dresel, 2017). Another study from Germany showed that higher SES students were more likely to receive a very good grade than lower SES students, given the same cognitive ability and competency scores (Bayer et al., 2021). These results suggest that students from working poor or welfare recipients are perceived to be more deficient than students from higher SES backgrounds.

However, no studies have examined the different stereotypes held by (preservice) teachers about different low SES students to date. Studies in non-school settings have shown that poor people, welfare recipients, and the unemployed are typically subject to shared negative stereotypes in the German context (Asbrock, 2010) and Norwegian and US-based studies (Bye et al., 2014; Cuddy et al., 2007; Fiske et al., 2002). In another Australia-based study on cultural stereotypes, recipients of unemployment benefits were rated as colder and more incompetent than individuals who were just unemployed (Schofield et al., 2021a). At the level of individual stereotypes in Australia, Schofield et al. (2019) showed that welfare recipients were rated as less conscientious, less humane, and as poorer workers than employees. Although different welfare systems exist in each country, an international comparative study has shown that competence stereotypes do not differ between those systems. However,

it could be shown that welfare recipients in Germany were stereotyped as colder than welfare recipients in nordic welfare systems (e.g., Sweden). This is discussed against the background that welfare systems in nordic countries are less competitive and more universalistic, so recipients of these welfare benefits are also seen as more deserving (Schofield et al., 2021b).

Australian-based studies found that recipients of unemployment benefits (welfare) were rated more negatively than the working poor with regard to conscientiousness, emotional stability, agreeableness, warmth, and competence, among others (Suomi et al., 2020, 2022). Because studies in out-of-school settings reveal differentiations between these groups of individuals with low SES origins, we are interested in whether and how preservice teachers also differentiate between the working poor and welfare recipients. This is also against the background that no studies in Germany have compared stereotypes about these groups so far.

In addition to a perspective on cultural stereotypes, we are also interested in individual stereotypes of preservice teachers. A suitable approach for gaining individual-centered insights into the occurrence of stereotypes is the Doing Class³ and Doing Differences approach, which assumes that social categories are performed and thus constructed in individual interactions (West & Fenstermaker, 1995). The approach refers to the theoretical foundations of symbolic interactionism (Goffman, 1976). Following this approach, we understand

class as more than a designation of income, profession, or educational attainment. Along with other social identities like race and gender, class is a crucial element of how people make sense of the world, communicate with others, and negotiate complex power relations (Hunt & Seiver, 2018, p. 344).

These performances and interactions are embedded in social norms, which in turn are reproduced through individual interactions (West & Fenstermaker, 2002; West & Zimmerman, 1987). Following this social constructivist and ethnomethodological premise (Garfinkel, 2006), class must be understood as an "ongoing situated accomplishment" (West & Fenstermaker, 2002, p. 541).

From this analytical perspective, teachers associate lower classes⁴ primarily with low performance and academic skills in Germany (Lange-Vester, 2015) as well as in the USA (Hatt, 2012; Morris, 2005; Rubin, 2007) and England (Dunne & Gazeley, 2008). With regard to parents, teachers in Germany (Koevel et al., 2021; Lange-Vester, 2015) as well as in the USA (Rubin, 2007) and England (Dunne & Gazeley, 2008; Stanforth & Rose, 2020) also show deficient perspectives. Similar results have been reported for preservice teachers from England and Scotland. At the same time, it is argued that "professional knowledge and communities of practice can be levers for change" regarding such deficit perspectives (Ellis et al., 2016, p. 495). Based on a conceptual literature review, Hunt

³ As West and Fenstermaker use the term class, we use it here simultaneously with the term SES in the stereotype research cited.

⁴ The following studies focused on different factors representing low-class origin (e.g., poverty, milieu, class, receipt of free school lunch).

and Seiver (2018) conclude that teachers predominantly have deficit perspectives regarding lower-class students.

Although low-class origins take various forms (Hunt & Seiver, 2018), no previous studies have examined the differentiations made by (preservice) teachers regarding different low-class origins (e.g., working poor and welfare recipients). West and Fenstermaker extend their approach to Doing Differences by borrowing from the Doing Class approach. For them,

doing difference renders the social arrangements based on [...] class category accountable as normal and natural, that is, as legitimate, ways of organizing social life. Differences among people that are created by this process can then be portrayed as fundamental and enduring dispositions (West & Fenstermaker, 2002, p. 541).

Individual differentiations can be linked to cultural stereotypes by understanding them as individually relevant categorizations and stereotyping given content based on cultural stereotypical knowledge about those categories (Hirschauer, 2021). From this perspective, we understand Doing Difference as a two-step process on an individual level. First, social categories are constructed (e.g., welfare recipients) and people are categorized into these social groups. Secondly, these categories have to be filled with generalized beliefs about the members of this category, which can be understood as stereotypes (Imhoff, 2021). The different stereotypes about the social categories then create differences between these categories. Moreover, the focus on individual explicitly constructed differentiations allows access to underlying implicit stereotypical beliefs (Budde, 2013). Therefore, Doing Difference is an approach which allows us to postulate that cultural stereotypes are constructed and reproduced by individual actions and thoughts (Doings) if these cultural stereotypes and categorizations are relevant on an explicit and/or implicit individual level. As other studies have already examined constructions of difference in school related to different social categories (Machovcová, 2017; Merl, 2021; Riegel, 2012; Stoll, 2014), our study focuses on preservice teachers' differentiations between welfare recipients and the working poor.

2.1 This research

The purpose of our study was to fully assess preservice teachers' perceptions of welfare recipients and the working poor. To this end, we surveyed both cultural stereotypes and individual stereotypes in the form of constructions of difference (Eagly & Mladinic, 1989; West & Fenstermaker, 1995). Our objective was to gain a deeper insight into the perceptions of different low SES origins, which has already been acquired in non-school settings. Based on research desiderata for school-based studies, we formulated the following main research question:

(How) do preservice teachers differentiate between welfare recipients and the working poor?

2.1.1 Quantitative study (Study 1)

To answer the main research question, we focused on cultural stereotypes in a quantitative study and formulated the following research question:

Research Question (RQ1): (How) do the quantity, content, and valence of preservice teachers' explicit knowledge of cultural stereotypes about welfare recipients and the working poor differ?

Based on our descriptions of stereotypes regarding the poor across the board, and welfare recipients and the working poor in particular, we formulated the following hypotheses:

Hypothesis 1 (H1) Preservice teachers cite a higher number of negative cultural stereotypes toward welfare recipients than toward the working poor overall.

Hypothesis 2 (H2) Preservice teachers cite a lower number of positive cultural stereotypes toward welfare recipients than toward the working poor overall.

2.1.2 Qualitative study (Study 2)

Our qualitative study focused on preservice teachers' individual stereotypes in the form of constructions of difference. Since these individual differentiations can be linked to cultural stereotypes (Hirschauer, 2021), we were also interested in how the preservice teachers explain and justify their individual differentiations. Therefore, we formulated the following research questions:

Research Question (RQ2): (How) do preservice teachers construct differences between welfare recipients and the working poor?

- (*RQ2.1.*) How do they explain their constructed differences?
- (*RQ2.2.*) How do they justify their constructed differences?

3 Methodical approach

Using a convergent mixed methods design, we surveyed preservice teachers in a qualitative and a quantitative study with different samples (Creswell & Plano-Clark, 2011; Tashakkori & Teddlie, 1998). Furthermore, we aligned our approach with considerations of American pragmatism (Dewey, 1998; Hall, 2013), which enabled us to see qualitative and quantitative research's different epistemological and methodological foundations as compatible (Johnson & Onwuegbuzie, 2004). Indeed, the various approaches allowed us to take a broad view of the studied phenomena (Hall, 2013). The different research questions under the main research question contributed to this complementary perspective. One of



Fig. 1 Model of our convergent mixed methods design (Creswell & Plano-Clark, 2011); *QUAL* qualitative study, *QUANT* quantitative study

the research questions focused on cultural stereotypes (RQ1) and the other on individual stereotypes in the form of individual constructions of difference (RQ2) (Bryman, 2006; Greene et al., 1989). On the one hand, the quantitative question allowed us to broadly determine the perceived distribution of cultural stereotypes. On the other hand, the qualitative question allowed us to focus on the individual in order to fully assess individual differentiation and underlying explicit and implicit stereotypes (Budde, 2013). These different approaches to the individual and cultural levels also allowed us to explain the results of one study with the help of the results of the other study (Bryman, 2006). The results from the two studies are integrated and related to each other in a joint discussion. In addition, the joint discussion of the theoretical approaches leading to the main research question further ensures the integration of the two studies (Fetters et al., 2013).

Based on these considerations, our study design (Fig. 1) was as follows:

The two sub-studies conducted within the mixed methods approach are explained below.

3.1 Quantitative study (Study 1)

The quantitative study was conducted online and was a replication study of previous studies by Bonefeld & Karst (2020) and Kahraman and Knoblich (2000) which focused on migration background. In an open-ended production task, participants were asked to write down as many cultural stereotypes as possible (max. 15) about welfare recipients ("Hartz-4") and the working poor ("Einkommensarmut").

It should be noted that using the term "welfare" can be criticized for two reasons. Firstly, the term is associated with stigmatizing sexist, racist, and classist stereo-types (Reppond & Bullock, 2018). Secondly, in contrast to welfare benefits for the unemployed ("Hartz-4"), welfare benefits such as child benefits ("Kindergeld") are not subject to a substantial change in Germany (e.g., cost reduction and disciplinary measures) and are also not the target of negative stereotyping. Thus, the term "welfare" generalizes when only the stereotyping of recipients of unemployment benefits is meant (Sandermann, 2014). Therefore, we use this term only to ensure connectivity with international welfare studies. Moreover, the participants in both studies were not confronted with the term "welfare" but "Hartz-4". This term is a colloquial term in Germany to describe unemployment benefits and is also used in media formats, for example (Thiele, 2017).

The participants were informed that the stereotypes did not have to correspond to their individual stereotypes, and that all statements would be recorded anonymously. The production tasks on the two different backgrounds were presented in a randomized order. The participants had at least three minutes per task. After the three minutes had elapsed, they had the option of continuing by pressing "continue."

3.1.1 Sample

The participants were contacted using mailing lists and forums for preservice teachers and lectures at 11 universities. The preservice teachers participated via a link in the respective mails, forum entries, and lectures. Participation was voluntary and under the guarantee of anonymity for the study participants. A total of 196 preservice high school (In Germany: "Gymnasium") teachers participated in the survey. Depending on the university, the participants could choose between entering a raffle or receiving credit points for participating in the study. Here, too, the anonymity of the participants was guaranteed by not establishing any contact with the scientists conducting this study.

On average, the participants were in the 7-8th semester of their teacher training program (SD=5.5). Of the participants, 75% reported themselves as female and 16.3% as male. The rest of the participants assigned themselves to other gender categories (1.5%) or did not specify their gender (7.1%). Therefore, in accordance with the gender distribution in Germany in high school teacher training, women are overrepresented, and men are underrepresented in our study (Statistisches Bundesamt, 2022). In total, 30.1% had a migration background; that is, they or at least one of their parents was not born in Germany. A representative survey of student teachers showed that about 20% have a migration background, which is why students with a

migration background are overrepresented in our study (Wolf et al., 2021). Regarding welfare, 11.8% of participants reported that at least one of their parents had previously received welfare ("Hartz-4").

We determined the SES of the participants using information on their parents' occupations. These data were transformed into values for "International Socio-Economic Index of Occupational Status" (ISEI) (Ganzeboom, 2010; Ganzeboom et al., 1992; International Labour Office, 2012). The ISEI scale represents a standardized international scale that considers income and the educational background required for a job. To estimate SES, we used the highest ISEI score of one of the two parents (HISEI), which allows international and longitudinal comparability. This also avoided the problem that the participants' estimate of their parents' income might be inaccurate (Hoffmeyer-Zlotnik & Warner, 1998). The sample had a mean HISEI of 55.15 (SD = 16.27). Slightly higher HISEI values were reported in other studies with preservice teachers studying high school (Gymnasium) teaching in Germany (Cramer, 2010; Puderbach, 2016).

3.1.2 Analysis

A quantitative content analysis was conducted (Bonefeld & Karst, 2020; Coe & Scacco, 2017). To this end, we created a codebook with different inductive content categories based on the stereotypes written by 50 randomly selected participants (see Supplementary Information for an example of the codebook for selected content categories: Table SI1). In addition, we added the valences "negative," "neutral," and "positive" deductively. Subsequently, two research assistants who were not involved in the research process coded the different data sets based on the codebook using MAXQDA2020 (VERBI Software, 2021).

Kappa values were then calculated in MAXQDA to check the reliability of the assignment to the content categories and assignment to the valences. We checked the interrater reliability using kappa values since these are firstly suitable for categorical data and, secondly, consider the randomness of the assignments by the two raters for a category system with more than two categories (Brennan & Prediger, 1981; Gwet, 2014). The value for the content categories was kappa=.82. The value for the valence was kappa=.88. Both kappa values were thus almost perfect, in accordance with Landis and Koch (1977).

Regarding different categorizations, in a next step, the raters discussed their different categorizations and agreed on a common content category and valence. The following table (Table 1) shows some exemplary categorizations. For instance, a negative stereotype mentioned for the content category "commitment" was laziness. In contrast, a positive stereotype was diligence.

Finally, an ANOVA with repeated measures was calculated, which will be explained in the Results Section.

Content category	Valence			
	Negative	Neutral	Positive	
Social status	Outsider	Pensioner	Important Professions	
Consumption & mate- rial goods	Poor	Public transport	Double income	
Education	Stupid	No high school diploma	Intelligence	
Commitment	Lazy	Architect of his or her own fortune	Diligent	
Family conditions	Lack of support by parents	Many children	Interested parents	
Social behavior	Antisocial	Direct	Courageous	
Emotional state	Shame	Introverted	Fighter mentality	
Health	Overweight	Disability	Conscious diet	
Sense of responsibility	Dirty household	Obligations	Independent	
Outward appearance	Ugly	Tattoos	Neat appearance	

 Table 1
 Examples of the categorized cultural stereotypes

3.2 Qualitative study (Study 2)

The qualitative study was designed as an interview study with problem-centered interviews (Witzel, 2000; Witzel & Reiter, 2012). To this end, we adopted Scharff's (2008) understanding of interviews as situations in which interviewees construct possible differences. In line with the research question, the interview guideline aimed at capturing the preservice teachers' individual constructions of difference regarding the working poor and welfare recipients ("Hartz-4") (for the translated Interview guide see Supplementary Information: Table SI2).

3.2.1 Sample

We conducted 11 interviews with preservice high school (in Germany: "Gymnasium") teachers. The participants were recruited at two German universities in different Federal States using mailing lists and posts in forums for preservice teachers. The preservice teachers then contacted the first author of this study to arrange an interview appointment. The first author then conducted interviews with all preservice high school teachers who came forward. Participants received 12 Euros for their participation. At one of the universities, they could choose between 12 Euros and credit points they had to collect as part of their degree program by participating in studies. We held ten interviews using video conferencing software and one interview face-to-face. The interviews had a mean length of 45.32 min (SD=07.16). For the analysis of the interviews, we excluded one interview because this was the only interview where a third person was present, while in all other interviews only the first author as well as the interviewe were present. In addition, the interviewe seemed uncertain about the meaning of Hartz-4. Before the interview, interviewees answered a companion questionnaire which collected their sociodemographic data. On average, the preservice teachers, whose interviews were analyzed, had completed 5 semesters of the teacher training program (SD = 3.02). Regarding gender, 70% reported themselves as female (30% as male). Overall, 50% indicated that they had a migration background because they or one of their parents was not born in Germany. In addition, 30% reported that they or their parents received welfare ("Hartz-4"). The sample had a mean HISEI of 49.25 (SD = 15.95), which was lower than the mean HISEI of the sample in our quantitative study.

After the interviews were conducted, the audio recordings were transcribed according to content-specific semantic transcription rules (Dresing & Pehl, 2018; for the English translation, see Kuckartz & Rädiker, 2019). MAXQDA software was used for the transcription and following analysis (VERBI Software, 2021).

3.2.2 Analysis

Subsequently, the interviews were analyzed according to grounded theory (Glaser & Strauss, 1967). However, the orientation towards the principles of grounded theory only took place in relation to the analysis, as the research questions were already formulated in advance through the chosen mixed-methods design. In addition, due to the extensive mixed-methods design, the sampling did not include theoretical sampling, as only an analysis of the initially collected interview material took place. Accordingly, we followed an abbreviated grounded theory (Willig, 2008) applied solely to the analysis of the data material.

The goal was not to develop a universalistic theory but rather a common, socalled middle-range theory that could be explained by the interviews (Bryant & Charmaz, 2007). Following the methodological principles of grounded theory, we did not focus on the representativeness of the interviewees but on a broad view of the phenomenon of individual differentiations between the working poor and welfare recipients (Corbin & Strauss, 1990). This approach required constant inductivedeductive comparison between the interviews (Bryant & Charmaz, 2012).

For this purpose, we initially coded openly to break down the material with a focus on our research questions (RQ2, RQ2.1, RQ2.2). Axial and selective coding processes allowed us to formulate increasingly abstract categories (Corbin & Strauss, 1990; Strauss & Corbin, 1998). The resulting core categories represented the preservice teachers' constructions of difference (Hirschauer, 2021; West & Fenstermaker, 1995) between welfare recipients and the working poor across the interviews.

4 Results of the quantitative study (Study 1)

For our quantitative study, we used SPSS to calculate an ANOVA with repeated measures with the factors: group (welfare recipients vs. working poor), content category (social status vs. consumption & material goods vs. education vs. commitment

Table 2Average number ofcultural stereotypes named	Content category	Mean and standard deviation	
cultural stereotypes named by the preservice teachers per content category	Social status Consumption and material goods Education Commitment Family conditions Social behavior Emotional state Health Sense of responsibility	M=3.61, SD=2.76 M=3.07, SD=2.68 M=1.99, SD=1.72 M=1.76, SD=1.53 M=1.21, SD=1.34 M=0.92, SD=1.2 M=0.93, SD=1.37 M=0.74, SD=1 M=0.54, SD=0.81	
	Outward appearance	M = 0.38, SD = 0.76	

vs. family conditions vs. social behavior vs. emotional state vs. health vs. sense of responsibility vs. outward appearance), and valence (positive vs. neutral vs. negative). The number of written stereotypes was used as the dependent variable.

4.1 Main effects

The ANOVA revealed a significant main effect of group, F(1, 195) = 11.27, p < .001, $\eta^2 = .06$. The preservice teachers named more cultural stereotypes toward welfare recipients (M = 8.06, SD = 3.74) than toward the working poor (M = 7.09, SD = 3.4). Regarding the main effect of valence, Mauchly's test for sphericity indicated that the assumption of sphericity was violated, $\chi^2(2)$ 50.4, p < .001. Therefore, the degrees of freedom were corrected using Greenhouse–Geisser estimates of sphericity ($\varepsilon = .81$). The ANOVA revealed a significant main effect of valence, F(1.63, 317.38) = 586.09, p < .001, $\eta^2 = .74$. The preservice teachers named more negative (M = 11.29, SD = 4.62) than neutral (M = 2.86, SD = 2.9) and positive (M = 1, SD = 1.58) cultural stereotypes in total. For the main effect of content categories, the assumption of sphericity was also violated, $\chi^2(44)$ 689.9, p < .001. Degrees of freedom were corrected a significant main effect of content categories, the ANOVA revealed a significant main effect of content category, F(5.02, 977.98) = 87.63, p < .001, $\eta^2 = .31$. The distribution of the mentioned cultural stereotypes across the content categories can be traced in Table 2.

4.2 Interaction effects

Mauchly's test for sphericity indicated that the assumption of sphericity was violated for the interaction effect group*valence, $\chi^2(2) = 164.23$, p < .001. Therefore, the degrees of freedom were corrected using Greenhouse–Geisser estimates of sphericity ($\varepsilon = .64$). The group had a significant interaction effect on the quantity of stereotypes in the difference valences, F(1.27, 248.23) = 56.1, p < .001,

Table 3Average number ofcultural stereotypes named	Valence	Welfare recipients	Working poor
by the preservice teachers per group and per valence	Negative	M=6.69	M=4.6
group and per valence		SD = 3.28	SD = 2.92
	Neutral	M = 1.22	M = 1.64
		SD = 1.45	SD = 1.8
	Positive	M = 0.15	M = 0.85
		SD = 0.49	<i>SD</i> = 1.48

 η^2 = .22. The cultural stereotypes named per group and the valences can be found in Table 3.

Mauchly's test for sphericity indicated that the assumption of sphericity was also violated for the interaction effect group*content category*valence, $\chi^2(170) = 2128.47$, p < .001. Therefore, the degrees of freedom were also corrected using Greenhouse–Geisser estimates of sphericity ($\epsilon = .51$). The ANOVA revealed a significant interaction effect of group vs. content category vs. valence, F(9.16, 1786.81) = 23.42, p < .001, $\eta^2 = .11$. To show the direction of this effect, we performed Bonferroni-corrected pairwise comparisons with an alpha significance level of .05. The following sections present the results of these pairwise comparisons. To facilitate comparison, they are structured identically. First, in each chapter, we report the results for stereotypes with a negative valence, then for those with a neutral valence, and finally for those with a positive valence. The results can also be seen in the figures (Fig. 2 for negative valence, Fig. 3 for neutral valence, Fig. 4 for positive valence). The rounded values can be traced in the Supplementary Information (TableSI3, TableSI4, and TableSI5).

4.2.1 Social status

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. A significantly (p = .014) higher number of cultural stereotypes with a negative valence mentioned for welfare recipients than for the working poor ($M_{Diff} = 0.28$, 95%-CI [0.06, 0.50]).
- 2. A significantly (p < .001) lower number of cultural stereotypes with a neutral valence mentioned for welfare recipients than for the working poor $(M_{Diff} = -0.52, 95\%$ -CI [-0.67, -0.36]).
- 3. A significantly (p = .002) lower number of cultural stereotypes with a positive valence mentioned for welfare recipients than for the working poor $(M_{Diff} = -0.06, 95\%$ -CI [-0.10, -0.02]).

4.2.2 Consumption and material goods

The Bonferroni-adjusted post-hoc analysis revealed:



Fig. 2 Rounded average number of cultural stereotypes with a negative valence named by preservice teachers per group and per content category (Error bars represent the confidence interval (95%); significant differences between groups are marked)



Fig. 3 Rounded average number of cultural stereotypes with a neutral valence named by preservice teachers per group and per content category (Error bars represent the confidence interval (95%); significant differences between groups are marked)

- 1. No significant differences (p = .089) between the amount of cultural stereotypes with a negative valence mentioned for welfare recipients and the working poor ($M_{Diff} = 0.18, 95\%$ -CI [-0.03, 0.39]).
- 2. A significantly (p = .004) higher number of cultural stereotypes with a neutral valence mentioned for welfare recipients than for the working poor $(M_{Diff} = 0.18, 95\%$ -CI [0.06, 0.30]).
- 3. A significantly (p = .018) lower number of cultural stereotypes with a positive valence mentioned for welfare recipients than for the working poor $(M_{Diff} = -0.05, 95\%$ -CI [-0.09, -0.01]).



Fig. 4 Rounded average number of cultural stereotypes with a positive valence named by preservice teachers per group and per content category (Error bars represent the confidence interval (95%); significant differences between groups are marked)

4.2.3 Education

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. No significant differences (p = .899) in the amount of cultural stereotypes with a negative valence mentioned for welfare recipients and the working poor ($M_{Diff} = 0.01, 95\%$ -CI [-0.15, 0.17]).
- 2. No significant differences (p = .862) in the amount of cultural stereotypes with a neutral valence mentioned for welfare recipients and the working poor ($M_{Diff} = -0.01, 95\%$ -CI [-0.06, 0.05]).
- 3. A significantly (p = .049) lower number of cultural stereotypes with a positive valence mentioned for welfare recipients than for the working poor $(M_{Diff} = -0.05, 95\%$ -CI [-0.09, 0.00]).

4.2.4 Commitment

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. A significantly (p < .001) higher number of cultural stereotypes with a negative valence mentioned for welfare recipients than for the working poor $(M_{Diff}=0.95, 95\%$ -CI [0.81, 1.10]).
- 2. No significant differences (p = .319) in the amount of cultural stereotypes with a neutral valence mentioned for welfare recipients and the working poor ($M_{Diff} = -0.01, 95\%$ -CI [-0.02, 0.01]).
- 3. A significantly (p < .001) lower number of cultural stereotypes with a positive valence mentioned for welfare recipients than for the working poor $(M_{Diff} = -0.36, 95\%$ -CI [-0.48, -0.25]).

4.2.5 Family conditions

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. No significant differences (p = .500) in the amount of cultural stereotypes with a negative valence mentioned for welfare recipients and the working poor ($M_{Diff} = 0.04, 95\%$ -CI [-0.07, 0.14]).
- 2. No significant differences (p = .154) in the amount of cultural stereotypes with a neutral valence mentioned for welfare recipients and the working poor $(M_{Diff} = -0.07, 95\%$ -CI [-0.16, 0.03]).
- 3. No significant differences (p = .058) in the amount of cultural stereotypes with a positive valence mentioned for welfare recipients and the working poor ($M_{Diff} = -0.03, 95\%$ -CI [-0.06, 0.01]).

4.2.6 Social behavior

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. A significantly (p < .001) higher number of cultural stereotypes with a negative valence mentioned for welfare recipients than for the working poor $(M_{Diff} = 0.34, 95\%$ -CI [0.22, 0.47]).
- 2. No significant differences (p = .481) in the amount of cultural stereotypes with a neutral valence mentioned for welfare recipients and the working poor $(M_{Diff} = -0.01, 95\%$ -CI [-0.04, 0.02]).
- 3. No significant differences (p = .095) in the amount of cultural stereotypes with a positive valence mentioned for welfare recipients and the working poor ($M_{Diff} = -0.05, 95\%$ -CI [-0.10, 0.01]).

4.2.7 Emotional state

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. A significantly (p = .004) lower number of cultural stereotypes with a negative valence mentioned for welfare recipients than for the working poor $(M_{Diff} = -0.24, 95\%$ -CI [-0.39, -0.08]).
- 2. No significant differences (p = .083) in the amount of cultural stereotypes with a neutral valence mentioned for welfare recipients and the working poor ($M_{Diff} = -0.02, 95\%$ -CI [-0.03, 0.00]).
- 3. No significant differences (p = .467) in the amount of cultural stereotypes with a positive valence mentioned for welfare recipients and the working poor ($M_{Diff} = -0.02, 95\%$ -CI [-0.08, 0.04]).

4.2.8 Health

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. A significantly (p=.015) higher number of cultural stereotypes with a negative valence mentioned for welfre recipients than for the working poor $(M_{Diff}=0.14, 95\%$ -CI [0.03, 0.25]).
- 2. No significant differences (p = .656) in the amount of cultural stereotypes with a neutral valence mentioned for welfare recipients and the working poor ($M_{Diff} = -0.01, 95\%$ -CI [-0.03, 0.02]).
- 3. No significant differences (p = .319) in the amount of cultural stereotypes with a positive valence mentioned for welfare recipients and the working poor $(M_{Diff} = -0.01, 95\%$ -CI [-0.02, 0.01]).

4.2.9 Sense of responsibility

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. A significantly (p < .001) higher number of cultural stereotypes with a negative valence mentioned for welfare recipients than for the working poor $(M_{Diff} = 0.20, 95\%$ -CI [0.11, 0.29]).
- 2. No significant differences (p = .158) in the amount of cultural stereotypes with a neutral valence mentioned for welfare recipients and the working poor $(M_{Diff}=0.01, 95\%$ -CI [0.00, 0.02]).
- 3. A significantly (p < .001) lower number of cultural stereotypes with a positive valence mentioned for welfare recipients than for the working poor $(M_{Diff} = -0.08, 95\%$ -CI [-0.12, -0.03]).

4.2.10 Outward appearance

The Bonferroni-adjusted post-hoc analysis revealed:

- 1. A significantly (p < .001) higher number of cultural stereotypes with a negative valence mentioned for welfare recipients than for the working poor $(M_{Diff} = 0.18, 95\%$ -CI [0.10, 0.26]).
- 2. No significant differences (p = .249) in the amount of cultural stereotypes with a neutral valence mentioned for welfare recipients and the working poor $(M_{Diff} = 0.02, 95\%$ -CI [-0.01, 0.06]).
- 3. No significant differences (p = .319) in the amount of cultural stereotypes with a positive valence mentioned for welfare recipients and the working poor $(M_{Diff} = -0.01, 95\%$ -CI [-0.02, 0.01]).

4.3 Summary of the quantitative study

Overall, more cultural stereotypes were mentioned toward welfare recipients than the working poor. In addition, overall, more negative cultural stereotypes were named toward welfare recipients than the working poor, and more positive cultural stereotypes were named toward the working poor than welfare recipients. Accordingly, these findings confirm H1 and H2.

A deeper look at the cultural stereotypes, however, reveals that the distribution differed in the content categories. A significantly higher number of the negative stereotypes toward welfare recipients were related to social status. Also, a significantly higher number of the negative stereotypes toward welfare recipients referred to individual behaviors (commitment, social behavior, sense of responsibility). These significant differences were also evident for the individual characteristics health and outward appearance. Interestingly, a significantly higher number of the stereotypes toward the working poor were related to emotional state.

The picture was reversed for stereotypes with a positive valence. For the content categories social status, consumption & material goods, and education, the preservice teachers mentioned significantly more stereotypes toward the working poor than toward welfare recipients. This also applied to the content categories commitment and sense of responsibility, which refer to behavioral patterns. Corresponding results are also shown in previous international studies, in which it is shown that the working poor are perceived less negatively in terms of a sense of responsibility than welfare recipients (Henry et al., 2004; Suomi et al., 2022). Our findings thus fit in with other studies showing that welfare recipients are perceived as responsible for their poverty situation and not very reciprocal in taking more from society than they give back (Schofield et al., 2019; Suomi et al., 2022). This narrative is also found in media formats that portray the working poor, as opposed to welfare recipients, as hard-working and structurally disadvantaged (Henry et al., 2004; Thiele, 2017).

Overall, both groups (welfare recipients and the working poor) were perceived by preservice teachers as typically subject to negative cultural stereotypes, as already reported by other studies in non-school settings (Asbrock, 2010; Bye et al., 2014; Fiske et al., 2002). Similar to previous findings (Suomi et al., 2020, 2022), in our study with a focus on cultural stereotypes, welfare recipients were stereotyped more negatively overall (across different content categories) than the working poor. Interestingly, when it comes to negative stereotypes, predominantly individual characteristics and behaviors were mentioned more frequently in relation to welfare recipients than to the working poor.

5 Results of the qualitative study (Study 2)

In the following, we report the results of the grounded theory analysis of the interviews. We reconstructed four individual constructions of difference and combined them to form one model. These individual constructions of difference are described in the following sections.

5.1 Public perception

All preservice teachers constructed differences related to public perception. Welfare recipients were consistently described as a group that received more negative publicity than the working poor. In their descriptions, the preservice teachers often pointed to negative media portrayals of welfare recipients. For instance, Julia⁵ reported:

Um, I could actually imagine that just in the media [...] a lot has actually been done, perhaps also just in my generation, unfortunately. [...] I think there are often shown people [...] who just, yes, do not do so much in their lives, and I think that this has already led to a very, very stigmatized image of a Hartz-4⁶ recipient with many, unfortunately.⁷

According to the preservice teachers, this negative public perception of welfare recipients is also negotiated in conversations with friends, families, or colleagues. Etienne reported that his friends: "picked up [memes] somewhere, and then [...] they make fun of them and stuff like that." Büsra reported hearing from her family that welfare recipients do not look for jobs and pretend to be sick. Accordingly, she said: "I also believe that there are many [people] who just exploit this."

In their descriptions of the possible realities of welfare recipients' lives, they refer to this critical public sphere and justify why it is complicated to develop a differentiated view of welfare recipients. For example, concerning welfare recipients, Ada reported:

I would say [...] that has a lot to do with stereotyping, with prejudices, with (.) the media landscape [...]. And I would say that this stigma is incredibly strong [...]. But in character traits, in attitude to life, characteristics, although the people don't know what stories are behind them at all.

The negative stereotypes named were often not based on personal experiences, which is why Carolina described welfare recipients as an "invisible class." In this context, "invisibility" referred primarily to the lack of experience or contact with welfare recipients. However, invisibility related to the working poor is of a different kind. Referring to the working poor, preservice teachers reported that they remain relatively invisible in the public discourse. Thus Alina said: "So I think that is something that you do not notice at all." Nadine distinguished the working poor: "You don't really know what it means when both parents or only one parent works, but earns very little. I think there is a clear border to Hartz-4 recipients."

Furthermore, the preservice teachers described the negative publicity regarding welfare recipients in school. For instance, Carolina recalled her school days and

⁵ All names and places are pseudonymized.

⁶ We have not translated "Hartz-4" into "welfare recipients" in the quotes to show that the differentiations refer to "Hartz-4" recipients in Germany.

⁷ The quotes have been translated from German into English. The original quotes and associated translations can be traced in the Supplementary Information: Table SI6.

explained: "When I went to school [...]. There were jokes about it [Hartz-4] all the time, or it was used as a swear word." Julia, who works as a substitute teacher at a school while studying, also reported on the critical perception of welfare recipients at her college:

But, um, apparently, if you've experienced this for many years and everyone else agrees with you, then it's somehow seen as okay, and it's already the case that stereotypes are clearly spread among my colleagues, and no one asks again. And it's just very easy to follow these stereotypes and say, 'Yes, the parents are Hartz-4 recipients. No wonder [...] they are lazy and don't want anything else, and now the child doesn't want anything else either!' Yes. And they don't even look for a different explanation or a different way, but it's just the simplest one, and everyone goes with that.

In this way, the students are held responsible for their parents' situation as welfare recipients. And, what is more, teachers draw conclusions about the parents' and children's attitudes to work and school tasks based on this situation.

Regarding negative public perception, however, some preservice teachers described how some personal contact with welfare recipients enables them to develop a more differentiated view of them than the prevailing critical view voiced in public discourse. Nadine stated in the interview that conversations with a family member who works at the employment office have supported her in achieving a differentiated view of welfare recipients. As a result, she has moved away from the opinion that welfare recipients simply do not want to work toward the perception that: "It is extremely difficult to break out of this system when you are stuck in Hartz-4."

In all interviews, the preservice teachers described welfare recipients as being the subject of public critique, while the working poor remain invisible in public discourse. However, the responses of the preservice teachers to this difference varied. Some followed the negative public perception of welfare recipients, but others disagreed grounded in personal contact. This different handling is illustrated in the two following individual constructions of difference.

5.2 Individual failure of welfare recipients

Some preservice teachers constructed differences regarding the underlying cause of welfare recipients' situation and that of the working poor. In this context, they mainly attributed the situation of welfare recipients to their individual failure, while the situation of the working poor was much more likely to be attributed to a structural problem. Lisa pointed out this difference by describing the life realities of both backgrounds:

Um, yes I think these are people [working poor] who want to work, who are very ambitious, and also want to earn money. And they can't help it that they earn less than they might/than they are really entitled to. Um, yes, and I see the people who receive Hartz-4 rather as: 'Yes, I lean back and sit down at times

on the couch and, yes, look at what is happening while I first smoke a cigarette. [...]' And, yes, as I said, they are not so ambitious, not so aspiring [...].

Whereas these preservice teachers tended to ignore structural connections related to the situation of welfare recipients, they were much more likely to explain the situation of the working poor with structural issues. They often described the situation as a vicious cycle, which the working poor cannot break out of without support. Ada's assessment of the working poor's situation was as follows:

And then they're kind of caught in this cycle [...]. I think I would just go crazy. It's this helplessness, this hopelessness because I think (.) it's very hard to get out of it because/I think you just have to get a chance to do something else, to acquire new skills. And otherwise, you always stay in the same position.

This description was often accompanied by statements on how competitive the world of work is and how unfairly the working poor are treated. Carolina related this to professions in the social sector: "People in the end also work 8 h and get so much done. And [...] our society [...] or policy, that [...] does nothing. Therefore, people just do not have much money."

Individual failure, which was named by some preservice teachers as the cause of welfare recipients' situation, was often linked to perceived laziness, lack of motivation, and lack of commitment. These attributions of characteristics can also be found in the interviews about school. Alina pointed to a lack of interest in education among some parents who receive welfare and suggested: "that this shows a very poor role model function. So [...] simply this idea that you can also stay at home [...] is very tempting for children, and that they then perhaps don't try so hard somehow." Thus, welfare recipients are opposed to educational processes and schooling because of their characteristics. From this point of view, their children succeed in school only if they behave in an opposing manner to their parents. Julia explained: "Either one does what one somehow also knows from one's parents because it has become the normal way prepared [...] or one wishes just exactly the opposite, to get out of the same way." The family was described as deficient and, at the same time, from the perspective of these preservice teachers, there seems to be no or only a limited possibility of ensuring that the children of welfare recipients have a promising school career.

5.3 Position within society

Another constructed differentiation was found related to the social position of the two groups. This differentiation is more descriptive and does not focus on the cause of a particular life situation. It was constructed primarily by the preservice teachers who reported that they had personal contact with welfare recipients. The working poor were described as more integrated than welfare recipients due to their status as workers. Thus, Felix reported.

Um, yes, so I see this actually very positive thing, working life, being involved, which is also participation, which forms the identity of many people. [...] Par-

ticipation in working life is also participation in social life [...]. I would then again more strongly differentiate from the participation [...] of Hartz-4 recipients, who are just really so settled in the very lower segment, where there is then perhaps not even enough for it [participation].

However, the working poor were not perceived as fully integrated within society. In this regard, the preservice teachers repeatedly referred to the income situation of the working poor. Matthias noted that some people: "had to go into the areas that pay less financially and then had to live with a lower hourly wage and everything. And that it then resulted in such a way that one then slips into this low-income society [...]." Ada commented: "These people are also somewhere simply on the fringes of society and are not noticed at all. Simply not appreciated [...]." This shows that the pursuit of gainful employment is, to a certain extent, seen as a yardstick for social integration.

Furthermore, according to some of the preservice teachers, government support of welfare recipients represents a dependency relationship, making welfare recipients more likely to be seen as outside society than the working poor. Additionally, welfare recipients were often not seen as having enough support to change their life situation. Felix elaborated: "Well, it's not like I have any options as a Hartz-4 person except to go to the employment office and see what they can find for me and take some measures or something." This perceived higher level of social exclusion also leads to a perception that welfare recipients have poorer educational opportunities. Büsra suggested that welfare recipients lose the connection to the necessary educational resources because of their status and "that [...] it is very difficult for them to [...] catch up with the new status." Overall, welfare recipients were described as more passive than the working poor because of their perceived dependence. Here, the focus was not on the supposed individual failure of welfare recipients, but more on the failure of state institutions, such as employment offices, schools, or teachers. These descriptions of welfare recipients were reduced to their life circumstances, but rarely addressed their personality, competencies, interests, and ambitions.

5.4 Justification

The two constructions of difference ("individual failure of welfare recipients" and "position within society") open up different kinds of justification. As welfare recipients are often described as failing individually, they also have to justify themselves individually more often than the working poor. Carolina said: "You want to know [...] always exactly, from someone who gets Hartz-4, WHY do you get that [...]?" Lisa attributed the social disintegration of welfare recipients to the individual behavior of some welfare recipients, which in turn results in the negative response to them:

And then people also tend to say: 'Oh, God, no. He's too antisocial for me!' [...] I don't necessarily want to take myself completely out of it. And from this then arises, I would say, a not so good integration of Hartz-4-families [...] into the normal, in quotation marks, society.

While welfare recipients were more frequently expected to justify their position, the working poor tended to be met more often with compassion and understanding by preservice teachers. Furthermore, most preservice teachers proactively looked for reasons to justify their (precarious) living situation. Julia, for example, said: "Well, I think that in society, um, as I said, people who live in poverty tend to be pitied, and people tend to look for reasons why they ended up in this situation." Regarding the working poor, the preservice teachers also voiced a lack of understanding of "the system." Alina remarked: "that you feel terribly sorry for people who work and then don't get enough money for it. [...] It's totally unfair [...]."

Nevertheless, not all preservice teachers supported the individual responsibilization of welfare recipients. The preservice teachers (Felix, Nadine, and Carolina) who tended to make a more descriptive differentiation between welfare recipients and the working poor ("position within society") also criticized the welfare system. Their criticism referred to insufficient financial support and lack of support for educational processes. This was also linked to the criticism that the welfare system and schools contribute to the perpetuation of welfare receipt across generations. Nadine reported: "that teachers need to be, um, more active in supporting" students from families receiving welfare. She concluded: "that the main key [is] always through education, especially through the support of children and young people [...] with this disadvantaged background. [...] I think these are good approaches."

These ambiguities show that the obligation of justification of welfare recipients extend along a continuum. None of the preservice teachers formulated an exclusively individual failure of all welfare recipients. Even the preservice teachers who frequently referred to the individual failure of welfare recipients (Lisa, Alina, Julia, Etienne, Büsra) specified, at the same time, that this did not apply to all welfare recipients. On the other hand, the preservice teachers who reported more structural problems in connection with welfare recipients (Felix, Carolina, Nadine) also stated that some welfare recipients take advantage of the welfare system and fail individually. Taken together, these differences indicate that the preservice teachers shared the perspective that welfare recipients first have to prove that their situation is not due to their individual failure. The required proof, however, extended along a continuum, as some preservice teachers were very suspicious of the majority of welfare recipients, while other preservice teachers is took a stronger perspective on structural problem situations for welfare recipients.

This continuum also applied to the working poor, but the interviews revealed an opposite orientation. As described above, the focus on the working poor was much more on structural problems, which means that these structures or the actors in these structures (e.g., schools or teachers) have to justify the situation of the working poor. However, this view also extended along a continuum, as some interviewees were very critical of the structural problems, while others were less critical. In contrast to the situation of welfare recipients, however, these different views did not focus on the individual obligation of the working poor to justify their situation.

6 Summary of the qualitative study

The following is a summary of the results in the light of our research questions (RQ.2, RQ2.1 and RQ2.2). All of the preservice teachers reported that the public perception of welfare recipients is more negative than that of the working poor. This differentiation is based primarily on negative media portrayals of welfare recipients and conversations with friends, family, or colleagues at school. The preservice teachers find it difficult to obtain a nuanced view of welfare recipients due to this negative public perception. In this regard, according to the preservice teachers, primarily personal contacts with welfare recipients promote a perception of them that differs from negative public perceptions.

The preservice teachers who have little or no contact with welfare recipients often differentiate between the two groups by ascribing the situation of welfare recipients to individual failure and the situation of the working poor to structural problems ("individual failure of welfare recipients"). When explaining this, they often refer to negative public perceptions. On the other hand, the preservice teachers who have contact with welfare recipients tend to make a differentiation in terms of the socially inferior position of welfare recipients compared to that of the working poor ("position within society"). Contrary to the previous differentiation, this does not focus on the opposition between the individual failure of welfare recipients and the structural problems affecting the working poor. Overall, both differentiations result in different justification obligations. In the case of the working poor, the "system" (e.g., politicians, schools, or teachers) is often required to justify its actions. In the case of welfare recipients, on the other hand, the focus is more often on the individual, with the welfare recipient having to justify his or her situation. However, this differentiation extends along a continuum, as some preservice teachers are highly critical of welfare recipients ("individual failure of welfare recipients") while others are less critical ("position within society"). These differentiations are illustrated in the following model (Fig. 5):

7 General discussion

In our mixed methods study, we surveyed preservice teachers' perceptions of diverse low socioeconomic origins. We thus aimed to gain a deeper insight into perceptions of diverse low socioeconomic origins. For this purpose, we surveyed cultural stereotypes and individual constructions of difference related to the working poor and welfare recipients in preservice teachers. Based on findings from studies in non-school settings, we expected preservice teachers to typically hold negative stereotypes toward the two groups. Furthermore, we expected welfare recipients to be perceived more negatively than the working poor. Both studies revealed that preservice teachers have negative perceptions about both groups, but that welfare recipients are perceived more negatively than the working poor.

For both groups, more negative cultural stereotypes were mentioned than neutral and positive ones (Study 1). Beyond that, however, differences emerged between the groups. More cultural stereotypes were named in relation to welfare recipients than to



Fig. 5 Model of preservice teachers' individual constructions of difference regarding the working poor and welfare recipients

the working poor. Differences in valence were also evident, with more negative and fewer positive cultural stereotypes named for welfare recipients. From this, we conclude that the public perception of welfare recipients is more negative than of the working poor, based on the perspective of preservice teachers. A look at the content categories revealed that, in addition to social status, significantly more negative stereotypes were named concerning welfare recipients than the working poor, especially regarding individual characteristics (commitment, social behavior, health, sense of responsibility, and outward appearance). For stereotypes with a positive valence, the opposite was true: A significantly higher number of stereotypes were named toward the working poor in the content categories social position, consumption & material goods, and education as well as for the individual characteristics commitment and sense of responsibility.

The results from the interviews capturing the individual constructions of difference were similar (Study 2). Deficit perspectives were evident among preservice teachers toward both groups of low SES. However, welfare recipients were identified as being exposed to more negative public perceptions in all interviews; the public have less knowledge about the working poor. The preservice teachers reported that they find it challenging to adopt a nuanced view of welfare recipients because of the negative

public perception of them. Accordingly, individuals who gain information about welfare recipients mainly from negative public perceptions construct a cause-related difference that attributes the cause for welfare recipients to individual failure, in line with public perceptions, and the cause for the working poor to structural problems. Like in the quantitative study, but on an individual level, this was associated with stereotypical beliefs about welfare recipients that focus on low commitment, negative social behavior, and a low sense of responsibility. Preservice teachers who did not follow this negative and cause-orientated public perception toward welfare recipients often explained their perception based on personal contact with welfare recipients. They tended to construct a descriptive difference in terms of the social status of the two groups. The working poor were described as more integrated as a result of their work status, while welfare recipients were described less integrated due to their (perceived) unemployment and receipt of welfare. Although these two differentiations had different focuses, both constructions of difference resulted in justifications that extend along a continuum. It emerged in all interviews that it is more likely that welfare recipients have to justify their situation individually while, in the case of the working poor, the justification is more likely to be provided by the actors in the structures that are held responsible for the situation of the working poor (e.g., politicians, teachers).

Overall, both studies showed that preservice teachers perceive a social-moral dividing line between welfare recipients and the working poor, distinguishing between (supposedly) individually failed welfare recipients and the structurally disadvantaged working poor (Fiske & Durante, 2019; Schofield et al., 2019). The position of welfare recipients, which was described as socially inferior in both studies, can be attributed to (assumed) unemployment, the receipt of welfare, and the passivity associated with it. In addition, the negative-individualizing public perception regarding welfare recipients plays a role. Preservice teachers who base their individual stereotypes and constructions of difference solely on this negative public perception reproduced this distinction in their individual constructions of difference and justified it with negative cultural stereotypes regarding the individual character of welfare recipients. Some preservice teachers, however, did not adopt this differentiation due to their personal experience, although they also perceived the more negative publicity about welfare recipients. The individual justification obligation, which is more likely to be expressed toward welfare recipients, can also be related to the cultural stereotypes that are more likely to target negative individual characteristics at welfare recipients than at the working poor.

For upcoming school practices, the negative perception regarding the working poor and welfare recipients could also be linked to negative performance expectations and assessments (Lorenz et al., 2016; Tobisch & Dresel, 2017). These might be more negatively skewed for students receiving welfare than for students whose parents are among the working poor. Overall, the preservice teachers' perceptions point to more internal attribution processes among students (and parents) who receive welfare (e.g., low interest in education, laziness, low sense of responsibility).

The results of this mixed-methods study represent an extension of existing studies that survey the stereotypes of preservice teachers toward individuals with different SES origins (Dunkake & Schuchart, 2015; Glock & Kleen, 2020; Tobisch & Dresel, 2020). Based on our study, follow-up studies that survey stereotypes, performance

expectations, performance ratings, or attributions of (preservice) teachers should differentiate between individuals with different low SES origins, as our study has shown that the working poor and welfare recipients are subjected to different stereotypes. Nevertheless, the limitations of our study should be noted.

7.1 Limitations

Our study included only preservice teachers. Although it can be argued that the stereotypes held by preservice and practicing teachers do not differ (Pit-ten Cate & Glock, 2019), our study population did not allow a focus on actions directly taken in schools. The broad focus of our study is also a limitation as we did not focus directly either on students or on the preservice teachers' future school practices in both studies. While the broad focus was suited for an exploratory approach, subsequent studies should be more closely related to schools. In this context, performance expectations, evaluations, attribution processes, and expectations of cooperation with parents could also be collected. As our survey did not include these aspects, we have only indirectly drawn inferences on them.

In addition, the sample was limited to preservice high school (in Germany: "Gymnasium") teachers, so it is not possible to draw conclusions about other types of schools. We focused on preservice high school teachers because attendance of high school allows direct entry into tertiary education at a university. In Germany, students of higher SES origins are more likely to graduate from high school than students of lower SES origins (Autorengruppe Bildungsberichterstattung, 2020) and are more likely to enter university (Reimer & Pollak, 2010; Schindler & Lorz, 2012). Lindemann and Gangl (2019) also showed that paternal unemployment experiences during secondary school reduced the chance of entering college. Based on their mediation analysis, they suggested that the declining optimism of students concerned about their career options was related to the decision, not entering university. Since teacher action is not included in the studies cited above, we consider our study to contribute findings pointing towards the possible tertiary effects of future high school teachers (Esser, 2016). Nevertheless, further studies should take a comparative perspective between (preservice) teachers of different school types.

On the other hand, we followed an explorative approach in both studies, as there are neither national nor international comparable studies regarding (preservice) teachers. After our approach showed different stereotyping of the working poor and welfare recipients, further studies should aim at a representativeness of the study participants.

In addition, due to the variability of teacher training programs in Germany, we cannot establish direct references to the individual teacher training programs at the universities of the 16 responsible federal states. This is also against the background that there is currently barely systematic preparation of the contents of the different teacher training courses in Germany (Drahmann, 2020). In addition, the number of participants in the study is too small to control for possible university differences. Nevertheless, we can make references to the "Standing Conference of the Ministers of Education and Cultural Affairs of the Federal States" (KMK). In this conference, the federal and state governments agreed on common standards for teacher education

(Craig, 2016; Drahmann, 2020). In these, a formulated competence for teacher training is that teachers should know the social [...] living conditions, any disadvantages, impairments, and barriers of and for pupils and influence their individual development within the framework of the school (Kultusministerkonferenz, 2019, p. 9). Our results show that the achievement of this competence may be negatively influenced by (negative) cultural and individual stereotypes. Nevertheless, further studies should directly relate to university teaching concepts for preservice teachers.

Another limitation is the fact that our methodological approach allowed us to focus only on cultural stereotypes in the quantitative study. At the same time, however, the interviews showed that the culturally shared negative stereotypes are perceived by individuals and partly reproduced in individual stereotypes. A further limitation is the different samples in the study. Although the different samples ensured anonymity in the quantitative study, at the same time, the individual differentiations are not directly comparable with simultaneously expressed cultural stereotypes. In the future, mixed methods studies with within-samples could be considered.

7.2 Conclusion and implications

Overall, it has been shown—on a cultural and individual level—that the working poor and welfare recipients are perceived negatively by preservice teachers, but that welfare recipients are even more negatively perceived by preservice teachers. Teachers participate in the educational trajectories of their students, and negative stereotypes could influence the role they play (Esser, 2016). A challenge for future school practices is that preservice teachers have limited knowledge for countering the negative cultural stereotypes. This might also make it challenging for the later teachers to find a way to deal with the life situations of children of welfare recipients and the working poor.

For teacher education, this results in the need to support preservice teachers in acquiring a differentiated view of the two groups. To this end, various teacher training programs are already proving effective in breaking down negative stereotypes and promoting an understanding of the realities of life for low-SES students (Ellis et al., 2016; Kumar & Hamer, 2013). Similar programs should be developed and evaluated for German teacher education, but targeted at specific groups with low SES origins (e.g., working poor and welfare recipients). This could enable preservice teachers to build knowledge and, based on this, to counter negative cultural stereotypes toward both groups, and especially the individualizing negative cultural stereotypes toward welfare recipients.

Further research projects should pay attention to the diversity of individuals with low SES origins. Our study revealed that individuals with different low SES origins are perceived differently by preservice teachers. Future research projects examining the tertiary effects of (preservice) teachers should, therefore, not focus solely on the upper category of low SES, but should acknowledge the diversity of lifestyles within this category. This focus would allow a more comprehensive investigation of the tertiary effects of teacher behavior in relation to diverse student backgrounds.

Appendix

Table 4Distribution of3,516,000welfare recipients("Hartz-4") in Germany in May2022 (Bundesagentur für Arbeit,2022, p. 25)	Status groups	In % (rounded)
	Unemployed In employment (topped up with welfare benefits)	41 14
	In labor market policy programs In school, study, or vocational training	11 10
	Parenting, household, care	8
	Incapacity to work	7 5
	Special regulations for the elderly Unknown/other	3 4

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