Politische Psychologie, 2019, Nr. 1, S. 8-22

Welcome Culture?: Cultural Intelligence, Contact and Social Orientation toward Refugees

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Abstract

As violence against refugees is increasing, the reduction of prejudices becomes more and more important. Based on an online study with 159 students, the constructs contact quality, contact quantity, social orientation and cultural intelligence are implied to explain prejudices against refugees. Thereby, this study examines three forms of prejudices: open, subtle and implicit prejudices. It reveals that contact quality, social orientation and cultural intelligence are partially useful for the prediction of certain forms of prejudices, while contact quantity does not show any influence on prejudices.

Keywords: Prejudices; refugees; cultural intelligence

Willkommenskultur?: Kulturelle Intelligenz, Kontakt und soziale Orientierung in Bezug auf Geflüchtete

Zusammenfassung

Mit zunehmender Gewalt gegen Flüchtlinge wird der Abbau von Vorurteilen immer wichtiger. Basierend auf einer Online-Studie mit 159 Studierenden werden die Konstrukte Kontaktqualität, Kontaktmenge, soziale Orientierung und kulturelle Intelligenz angedeutet, um Vorurteile gegenüber Flüchtlingen zu erklären. Dabei untersucht diese Studie drei Formen von Vorurteilen: offene, subtile und implizite Vorurteile. Es zeigt sich, dass Kontaktqualität, soziale Orientierung und kulturelle Intelligenz teilweise für die Vorhersage bestimmter Formen von Vorurteilen nützlich sind, während die Kontaktmenge keinen Einfluss auf Vorurteile zeigt.

Schlüsselwörter: Vorurteile; Flüchtlinge; kulturelle Intelligenz

Kurzfassung

Die derzeitige Flüchtlingskrise und die zunehmend feindlichen Einstellungen gegenüber Flüchtlingen sowie das Vorhandensein von Vorurteilen stellt die grundlegende Frage nach geeigneten Konstrukten, die als Prädikatoren für Vorurteile gegenüber Flüchtlingen dienen. In dieser Studie wird eine differenzierte Sicht auf solche Vorurteile eingenommen.

Basierend auf einer Online-Studie mit 159 Studierenden sollte anhand verschiedener Skalen und eines Reaktionszeittests untersucht werden, ob sich die Konstrukte Kontaktqualität, Kontaktquantität, soziale

Orientierung und „kulturelle Intelligenz“ dazu eignen, Vorurteile von Studierenden gegenüber Geflüchteten möglichst zuverlässig vorherzusagen, um zu verstehen, was die Bedingungen von Diskriminierung sind, um dieser möglicherweise entgegenzuwirken. Dabei werden drei Formen von Vorurteilen untersucht: offene, subtile und implizite Vorurteile.

In dieser Studie war es möglich, die verschiedenen Konstrukte und Vorurteilvariablen zu erheben und somit Beiträge zur Bewältigung der negativen Begleiterscheinungen der aktuellen Flüchtlingskrise auf wissenschaftlicher Basis zu erbringen. Hierdurch konnte ein wertvoller erster Beitrag geleistet werden, um Vorurteile gegenüber Geflüchteten besser zu verstehen und um diesen entgegenzuwirken.

Der vermutete negative Einfluss der „kulturellen Intelligenz“ auf die Vorurteile wurde zwar nachgewiesen, zeigt sich jedoch als relativ schwach. Ebenfalls zeigen die Ergebnisse, dass sich bei einer höheren Kontaktqualität und „kulturellen Intelligenz“ die relative Wahrscheinlichkeit des Auftretens von hohen offenen Vorurteilen verringert. Ein vergleichbarer Effekt zeigt sich bei einer höheren Kontaktqualität sowie sozialen Orientierung und der relativen Wahrscheinlichkeit des Auftretens von hohen subtilen Vorurteilen. Weitere signifikante Einflüsse der vier Konstrukte Kontaktqualität und -quantität, soziale Orientierung und „kulturelle Intelligenz“ auf die relative Wahrscheinlichkeit des Auftretens hoher offener, subtiler sowie impliziter Vorurteile lassen sich bei der Datenanalyse in dieser Studie nicht bestätigen. Der fehlende signifikante Einfluss der Kontaktquantität lässt vermuten, dass sich nicht die Häufigkeit, sondern die Qualität des Kontaktes zu Geflüchteten auf die Wahrscheinlichkeit des Auftretens von Vorurteilen auswirkt. Es hat sich außerdem gezeigt, dass die Aufnahme von Kontakt als Moderator zur Vorhersage von Vorurteilen durch die Ausprägung der sozialen Orientierung nur für subtile Vorurteile geeignet ist.

Als kritische Limitationen sollte berücksichtigt werden, dass die Stichprobe relativ klein ist.

Auch wenn alle angewendeten Messinstrumente gute Gütekriterien aufweisen, zeigen die Ergebnisse nicht die vermuteten Zusammenhänge auf. Dies könnte man mit dem Zeitpunkt der Messung erklären. Als die Untersuchung durchgeführt wurde, war zwar die Präsenz der Flüchtlingskrise in den Medien hoch, wodurch die damit verbundenen Ängste und die Aktivierung von potentiellen Vorurteilen als hoch einzuschätzen ist, jedoch fanden kaum oder relativ wenige Kontakte mit Geflüchteten statt. Von hoher realer Kontaktquantität und daraus resultierender hoher Kontaktqualität kann kaum ausgegangen werden.

Da die Strukturgleichungsmodelle sich in dieser Stichprobe nicht bestätigt haben, bedarf es weiterer Forschungsarbeiten, inwieweit die unterschiedlichen Vorurteilsformen von verschiedenen Konstrukten beeinflusst werden. Auch wenn zum gegenwärtigen Zeitpunkt die Notwendigkeit weiterer Forschung im Hinblick auf eine möglichst effektive Vorhersage von Vorurteilen gegenüber Geflüchteten besteht, kann das Bewusstsein über die Relevanz der Thematik und über den Nutzen einer Berücksichtigung eine wertvolle Grundlage bilden.

1 Introduction and theoretical background

Europe has to confirm their commitment to provide the necessary resources for a dignified survival of refugees. From a humanitarian point of view, this is of high relevance: Since migration will be a big topic of the future, a lack in humanitarian ways to deal with this topic has barbarism as its only alternative (some name it the ‘clash of civilizations’) (Žižek 2015, p. 82).

The current refugee crisis imposes a great challenge to the European Union, which will exacerbate with a possible in-

crease in migration flows in the future. The present study addresses these challenges, especially the challenge of hostility towards refugees by citizens of the host society. In fact, people respond with prejudice to growing social and cultural diversity on a regular basis (Benz & Widmann, 2007; Fuchs, 2007). Furthermore, it is to be expected that such prejudices against refugees will increase, with the rising number in refugees (Anger et al., 2010; Weiguny, 2016; Ziegler & Beelmann, 2009). One possible way of approaching this challenge is to involve decision makers, with low prejudices against refugees, in organisations. Role modelling from respective decision makers can lead to the prevention of discriminatory attitudes and to a reduction in discrimination. Such considerations lead to the fundamental question about suitable constructs serving as predictors for prejudices against refugees. In this study, a differentiated view will be taken on prejudices against refugees. For that matter, the constructs cultural intelligence, contact and social orientation will receive special attention as variables that might predict prejudices. In the following, the different relevant variables will be examined in detail.

1.1 Prejudices and prejudices against refugees

Prejudices can be understood as an expression of attitudes (Aronson et al., 2008). In more detail, attitudes are expectations and evaluations towards people, objects and ideas (Wirtz, 2013). That is, stereotypes and prejudices, as a special form of attitudes, function as an orientation for individuals in a complex world. Furthermore, they support the delimitation of one's own identity from others as we all as one's own group from other groups (Benz & Widemann, 2007). However, these definitions are nothing new to the world of social sciences.

Prejudices, stereotypes and discrimination are classical terms from social psychology, with their very own, distinct definition. For example, stereotypes can be understood as a general assumption about a group. The group characteristics created by stereotypes are attributed to all group members, without considering individual differences (Aronson et al., 2008). Discrimination on the other hand, can be defined as hostile, negative behaviour towards group members due to their attributed group characteristics (Aronson et al., 2008). However, when it comes to the development of prejudices, the definition does not seem as universal as for the other two. In research, different theoretical explanations of the development of prejudices exist (Benz & Widemann, 2007).

One theory is the Integrated Threat Theory (ITT). Thereby, symbolic threats, intergroup anxiety and negative stereotypes contribute to the development of prejudices or discriminatory behaviour (Stephan et al., 1999). Realistic threats are conflicts between groups and put the basis of existence or the well-being of one's own group in danger. Yet, a threat can only be perceived as real, but does not necessarily have to be real (Stephan et al., 1999).

The symbolic threat describes perceived differences between groups in regard to moral, values, norms, standards, attitudes and beliefs. Intergroup anxiety includes feelings, which can be perceived by the interaction with members of a different group. These feelings are often negative and expressed through fear because of the lack in superficial identification with the other group as well as profound differences in values (Stephan et al., 1999).

In this study, it is distinguished between subtle, open and implicit prejudices. The subdivision between subtle and open prejudices is derived from the definitions by Pettigrew and Meertens (1995). Subtle prejudices are indirect, detached and sober. They are characterized by defending traditional values, super evaluation of cultural differences as well as a lack of positive emotions towards a foreign group (Pettigrew & Meertens, 1995).

Open prejudices are expressed direct, close and emotional. They are characterized by a perceived threat of the foreign group, the feeling of superiority of the own group, avoidance of the other group, as well as feelings of power (Pettigrew & Meertens, 1995). In contrast to open and subtle prejudices, implicit prejudices describe subconscious and uncontrolled attitudes. Moreover, implicit prejudices are attitudes activated without an intent and by the presence of a trigger (Turner & Hewstone, 2012).

In this study, the term *refugees* is defined as a description of a group in the broad sense. A detailed definition of the term refugee can be found in convention documents relating to the legal status of the person (The UN Refugee Agency, 1951). According to this definition a person is considered a refugee, when he/she leaves his/her home because of the fear of being persecuted. The fear of persecution has to be based on race, religion, social group membership, political opinion or nationality in order to receive the status of a refugee (The UN Refugee Agency, 1951).

It can be observed, that this definition is not known to the public (Treibel, 2011). However, in this study, individual prejudices are analysed. Thus, it is important that the definition of refugees reflects a more common understanding. Based on the definition of the Duden Spelling Dictionary, the term refugee will be referred to in this paper as a person, who had to hastily leave their home for various reasons.

Prejudices against refugees can have a negative impact on their integration. Moreover, as a consequence of prejudices, the reduction of intercultural contact and negative attitudes of the local population towards refugees hinders integration (Zagefka & Nigbur, 2009). Also, research indicates that discrimination negatively affects the physical und mental health of refugees (Hansen & Sørlie, 2012; Huynh & Fuligni, 2010; Ziegler & Beelmann, 2009). Schmitt, Branscombe, Postmes and Garcia (2014) confirmed in their meta-analysis that perceived discrimination has a negative impact on the mental well-being of the victims.

In the Eurobarometer 437, 56% of the German citizens answered that the ethnic background can be viewed prejudicial during candidacies, regardless whether the same qualifications were given (European Commission, 2015). Therefore, prejudices influence in different ways the evaluation of applicants and employees (Weuster, 2012). Previous studies showed that a foreign name or accent could negatively affect the perceived suitability (Schneider et al., 2014; Weuster, 2012). The lack of objective and qualitative selection procedures fosters the practical relevance of heuristical decisions such as prejudices and stereotypes (Kanning, 2015). But discrimination often does not only have negative consequences for the applicants but also for the employers. Thereby it is possible that qualified applicants are rejected and their competencies are not available to the organisation.

1.2 Contact, cultural intelligence and social orientation

Prejudices against refugees can be influenced by the contact between the parties (Allport, 1981; Binder et al., 2009). According to Allport (1981), contact on eye level with common goals leads to a reduction in prejudices. Furthermore, promoting conditions of cooperation between parties as well as the support by authorities has an effect. Subsequently, the contact hypothesis was topic of numerous research studies (Davies et al., 2011; Pettigrew & Tropp, 2006; Stürmer, 2008). Yet, Pettigrew and Tropp (2006) showed in their meta-analysis that contact without the condition of Allport (1981) reduced prejudices.

In this study it is assumed that both, contact and intercultural competence can be beneficial to counteract prejudices, especially against refugees. First it is to note that cultural intelligence correlates highly with

intercultural competence (Matsumoto & Hyisung, 2013). Cultural intelligence can be understood as the individual's ability to act appropriately in situations that are created by cultural diversity (Ang et al., 2006). In more detail, cultural intelligence is a multi-dimensional construct consisting of the dimensions of meta-cognitive, cognitive, motivational and behavioural cultural intelligence. The dimension meta-cognitive cultural intelligence describes mental processes for acquisition and understanding of cultural awareness (Ang et al., 2007). The cognitive cultural intelligence describes the knowledge of norms, practices and traditions of different cultures. Motivational cultural intelligence describes the ability of investing time and energy in learning intercultural situations (Van Dyne et al., 2009). The fourth dimension, the behavioural cultural intelligence refers to the ability to behave appropriately in intercultural situations (Ang et al., 2007).

In this study it is also assumed that a higher *social orientation* has proven useful to counter prejudices. Kanning (2009b) describes social orientation as a whole portfolio of abilities, skills and knowledge of an individual to improve social behaviour. The improvement of the social situation is shaped by the implementation of personal aims during the act as well as the social acceptance of such (Kanning, 2009b). The individual competencies consist inter alia of relative consistent personality traits as well as mechanisms of mental behaviour regulations (Wirtz, 2013). The social orientation describes a positive attitude towards third parties in general. People with high levels of social orientation are able to put themselves into other people's position and take other perspectives. Also, they are characterized by high levels of tolerance towards other's values and norms (Kanning, 2009a).

2 Methods

In this study it is assumed that a high expression of cultural intelligence fosters unprejudiced attitudes towards refugees of different cultures. The interactions between contact, prejudices and social orientation will be analysed. In this context, the following hypotheses will be presented.

2.1 Hypothesis 1

The construct of cultural intelligence is related to the ability of adaption (Gröschke, 2013). In turn, adaptability is associated with low expression of distinctive prejudice (Butler & McManus, 2011). These findings allow the conclusion that cultural intelligence is negatively related, at least indirectly, to prejudices. Also it is assumed that dimensions of cultural intelligence can affect the variables of ITT. For example, an individual with high motivational cultural intelligence should display low intergroup anxiety. Furthermore, high cognitive as well as meta-cognitive cultural intelligence lead to less negative stereotypes (Girvan, 2016). These considerations are presented in figure 1 and lead to the following partial hypotheses (see Figure 1. Hypothesis 1.).

(1a) Higher distinctive cultural intelligence of students forecasts lower distinctive open prejudices towards refugees.

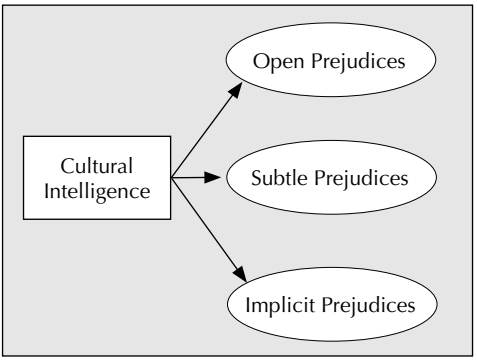

Figure 1. Hypothesis 1

(1b) Higher distinctive cultural intelligence of students forecasts lower distinctive subtle prejudices towards refugees.
(1c) Higher distinctive cultural intelligence of students forecasts lower distinctive implicit prejudices towards refugees.

2.2 Hypothesis 2

In previous research, numerous indications of the validity of the contact hypothesis by Allport (1981) were found (Aronson et al., 2008; Binder et al., 2009; Hewstone et al., 2014). Recent studies regarding the causal interrelation of prejudices and contacts indicate that contacts reduce prejudices but also that prejudices reduce contacts (Binder et al., 2009). These interrelations lead to the assumption that natives with more contact to refugees have lower prejudices towards them. In this study it is believed that a similar interrelation between high social orientation and low prejudices towards refugees exist. Hereupon, various findings indicate that people with a high social orientation show personality traits of people with low prejudices (Cohrs et al., 2012; Kanning, 2009b; Sibley & Duckitt, 2008; Stößel et al., 2009). For instance, openness, compatibility, empathy, pro-sociality and intellectuality can be named (Cohrs et al., 2012; Kanning, 2009b). From these premises, the assumption is made that a person with a high expression of the four constructs (cultural intelligence, contact quality, contact quantity and social competence) shows low expressions of prejudices. It is also presumed that the constructs forecast own prejudices to that. These considerations lead to the following partial hypotheses.

(2a) Higher expressions of contact quality, contact quantity, social orientation and cultural intelligence by students forecast lower open prejudices towards refugees.
(2b) Higher expressions of contact quality, contact quantity, social orientation and cultural intelligence by students forecast lower subtle prejudices towards refugees.
(2c) Higher expressions of contact quality, contact quantity, social orientation and cultural intelligence by students forecast lower implicit prejudices towards refugees.

2.3 Hypothesis 3

In the previous hypotheses, cultural intelligence was highlighted. For hypothesis 3, social orientation was chosen as a predictor. For that matter it is expected that social orientation is especially suitable for the prediction of implicit prejudices. This is supported by prior research where high social orientation reduced implicit prejudice (Truner & Hewstone, 2012). Therefore, social orientation will serve as a predictor for implicit prejudice. Taking the contact hypothesis by Allport (1989) into consideration, it follows that the interrelations are moderated by the contacts of refugees. The validated structural equation model is presented in figure 2 (see Figure 2. Structural Equation Model for Hypothesis 3).

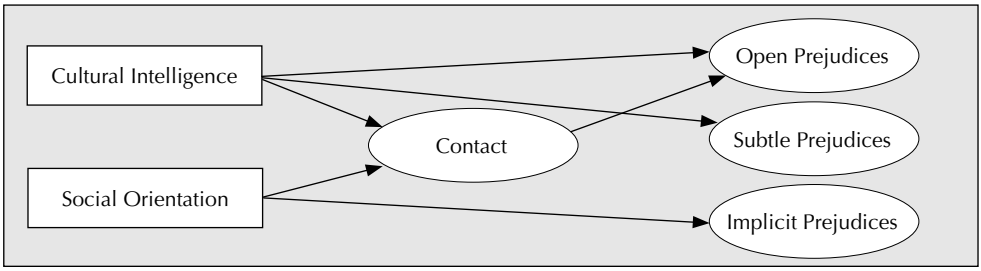

Figure 2. Structural Equation Modeling for Hypothesis 3

For the validation of our hypotheses, the following measurement instruments were used. The social orientation was measured by ten items in the short version of the Inventory of Social Competence (ISK-K) (Kanning, 2009a). Implicit attitudes and prejudices towards refugees were measured by the Implicit Association Test (Greenwald et al., 1998). Thereby, stimuli were presented in different orders divided by four different categories. The participants had the task to classify these stimuli error-free as positive or negative by pushing a button (Degner & Wentura, 2008). The attitude was measured with the objects of common setting categories (category A "refugee" and category B "locals"). For the evaluation dimension, category C "negative words" and category D "positive words" were chosen. Category C contained terms like catastrophe, hate, sadness, rotten, torture, accident and tragedy. For Category D, terms like honest, happy, peace, smile, sincere were included. These 14 terms were taken from the race-IAT by Banaji and Greenwald (2015), which was validated by the literature. The determined response time, the direction and the strength of associations between the seven test blocks were assessed. From the module, an automated calculation of an index value for the strength of association was made by Greenwald, Nosek and Banaji (2003). Strenght of association is derived from the response time and takes on a value between 1 and -1. The IAT was used in this study because it is a widespread method of measuring implicit prejudices in current research on prejudices and is a good additional measure for the separately covered areas of subtle and open prejudices (Fischer et al., 2013; Wirtz 2013).

For the levying of contact towards refugees, the general Intergroup Contact Quantity and the Contact Quality Scale were used (Islam & Hewstone, 1993). Islam and Hewstone (1993) let participants report how often they had contact to other groups at different places and how they experienced this contact. These scales were used in a large number of research projects or were used in slightly modified versions (Lolliot et al., 2014).

The term refugees was translated into "outgroup". The open and subtle prejudices towards refugees were measured with the Blatant and Subtle Prejudice Scale by Pettigrew and Meertens (1995). The cultural intelligence was measured by the Cultural Intelligence Scale (Van Dyne et al., 2008). Various items measured the dimensions meta-cognitive, cognitive, motivational and behavioural cultural intelligence.

Data were collected by an online-survey in 2016. The participants were recruited from e.g. Facebook, e-fellows and Xing. In total, N=159 participants answered the questionnaire. The sample consisted of 83 male (52.2%) and 76 female (47.8%) participants who studied at German universities. The age of the participants ranged between 18 and 29 years (M = 22.93; SD = 2.51). 157 participants had German as their nationality and 22 participants came from an immigration background (13.80%).

3 Results

3.1 Hypothesis 1

The predictor quality of cultural intelligence for the forecast of open, subtle and implicit prejudices will be examined by regressions. The results are presented in table 1. The result showed that cultural intelligence can be used as a predictor for open prejudices (β = -.25; p = .00), subtle prejudices (β = -.22; p = .01) as well as implicit prejudices (β = -.16; p = .04). A high cultural intelligence is accompanied by a low expression of open, subtle and implicit prejudices. However, the explained variation is very low with an R^2 between .03 and .06.

Table 1. Results of the regression of Hypothesis 1

	Beta	R^2	Standard Estimation Error	Sig.
Open Prejudices	-.25	.06	6.68	.00
Subtle Prejudices	-.22	.05	7.27	.01
Implicit Prejudices	-.16	.03	.16	.04

3.2 Hypothesis 2

For the verification of the second hypothesis, multiple logistic regressions were calculated. Therefore median splits for the independent variable of open, subtle and implicit prejudices were made. The median values are as follows: open prejudices *Md* = 17, subtle prejudices *Md* = 28 and implicit prejudices *Md* = .10. The new variables describe low prejudices with the value 0 and high prejudices with the value 1. For the regression, the inclusion method for selecting variables was chosen. The regression models were considered in relation to the dependent variables. The validation of the whole model confirms the significant contribution of the independent variables and their predictive power for open prejudices (χ^2 = 37.72; p = .00). The Pseudo-R-Quadrat-Statistic has a Nagelkerkes-R-Square of .28.

This value is sufficient and describes a proportion of the explained variance by the independent variables. It indicates that the independent variables explain the model sufficiently. The Hosmer-Lemeshow-Test highlights the differences between observable and predicted values. The significance is above .70 with .76 and indicates a good fit of the model (Backhaus et al., 2011). The validation of the characteristic variable for the model of open prejudices shows that the variables contact quality and cultural intelligence have a significant impact on whether high open prejudices occur or not.

That is, social orientation (β = .24) and contact quality (β = .87) have a significant impact on the forecast of open prejudices. The sign of the regression coefficient B gives an indication about the directions of the effects. The value of -.15 for contact quality shows that the probability of the occurrence of high prejudice decreases when contact quality increases. This negative interrelation was also confirmed for cultural intelligence. For further interpretation, the odds ratios will be reviewed, which describe the probability of occurrence and its relation to the converse probability (Backhaus et al., 2011).

The Odds-Ratio of the occurrence of high open prejudices changes by an increase of one unit around the factor .86 for

Table 2. Regression Coefficient – logistic Regression Constructs and open Prejudices.

	Regression Coefficient B	Standard Error	Wald	Sig.	Odds-Ratio
Contact Quality	-.15	.04	13.05	.00	.86
Cultural Intelligence	-.04	.01	7.91	.01	.96
Social Orientation	-.07	.06	1.39	.24	.94
Contact Quantity	.01	.04	.03	.87	1.01

the variable contact quality and therefore reduces open prejudices. The relative probability of occurrence of high open prejudices declines by 4% with an increase in cultural intelligence of one unit. Thus, hypothesis 2a regarding open prejudices can be partly confirmed. It can be stated that the variables contact quality and cultural intelligence make a significant contribution to the reduction in occurrence of high open prejudices. The validation of the total model also confirms the significant contribution of the independent variables and their predictive power for subtle prejudices (χ^2 = 34.05; p = .00). The Pseudo-R-Quadrat-Statistic has a Nagelkerkes-R-Square of .26. This means that the independent variable explains the model sufficiently. The Hosmer-Lemeshow-Test indicates a good fit of the model with a significance of .80 (Backhaus et al., 2011). The validation of the characteristic variable for the model of subtle prejudices indicates that the variables contact quality and social orientation have a significant impact on the probability of high subtle prejudices occurence. The variable cultural intelligence and contact quantity are not significant with the values p = .14 and p = .72.

Subsequently, the interpretation regarding the regression coefficient follows that the probability of occurrence of subtle prejudices decreases when the variables of contact quality and social orientation increase. The relative probability of occurrence of high open prejudices decreases by about 13% when the variable contact quality increases by one unit. The Odds-Ratio value for the variable social orientation is 89. Therefore it can be assumed that the increase in the variable social orientation by one unit, decreases the relative probability of occurrence of high subtle prejudices by about 11%. Hypothesis 2b concerning subtle prejudices can be partly confirmed by the results. Contact quality and social orientation make a significant contribution to the forecast of the probability of occurrence of high subtle prejudices. The validation of the total model did not have a significant contribution to the independent variables and their forecast of implicit prejudices (χ^2 = 4.62; p = .33). The presented significant values of the Wald-Statistic confirms this.

Table 3. Regression Coefficient – logistic Regression Constructs and subtle Prejudices.

	Regression Coefficient B	Standard Error	Wald	Sig.	Odds-Ratio
Contact Quality	-.14	.04	11.60	.00	.87
Cultural Intelligence	-.12	.06	4.34	.04	.89
Social Orientation	-.02	.01	2.20	.14	.98
Contact Quantity	-.01	.04	.13	.72	.99

Table 4. Regression Coefficient – logistic Regression Constructs and implicit Prejudices.

	Regression Coefficient B	Standard Error	Wald	Sig.
Contact Quality	.01	.03	.09	.77
Cultural Intelligence	-.01	.01	.77	.38
Social Orientation	.01	.05	.01	.92
Contact Quantity	-.06	.04	2.81	.09

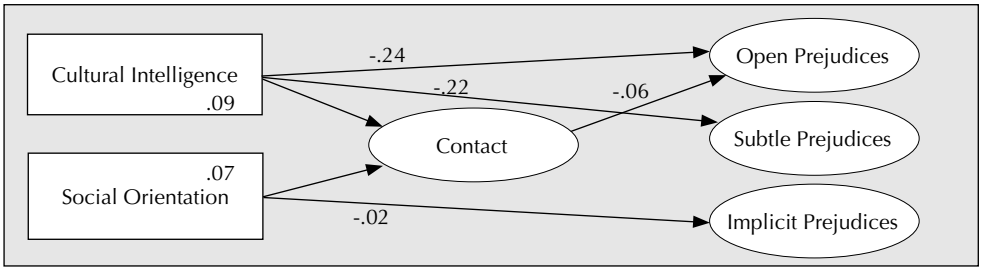

Figure 3. Standardized Regression Weights of the Structural Equation Modeling of Hypothesis 3

No independent variable had a significant impact on the probability that high implicit prejudices occur. Therefore, hypothesis 2c cannot be confirmed regarding implicit prejudices.

3.3 Hypothesis 3

The validity of the structural equation model could not be confirmed on the basis of the data. The data of the sample differs significantly from the model (χ^2 = 125.47; df = 9; p = .00). Also the Model fit must be valued as inadequate (default model RMSEA = .29; CFI_{LO} = .24; CFI_{HI} = .33; p = .00) (independence model RMSEA = .24; CFI_{LO} = .20; CFI_{HI} = .27; p = .00). The determined standardised regression weights are presented in figure 3 (see Figure 3. Standardized Regression Weights of the Structural Equation Model of Hypothesis 3.).

Based on the results, it was tested whether contact with refugees has a moderating effect on open, subtle and implicit prejudices. For this purpose, contact quality and contact quantity are fused to one variable – contact. In the following text, results of the moderated regression for cultural intelligence are presented.

Cultural intelligence, moderated by the contact with refugees, cannot be used as suitable predictor for implicit prejudices (β = -.11; p = .18). However, cultural intelligence seems to be suitable as a predictor for open (β = -.18; p = .02) and subtle prejudices (β = -.22; p = .01). Nevertheless the explained variation is higher, or remains high, when the contact with refugees is not included (open prejudices: R^2 = .06 without moderator vs. R^2 = .03 with moderator; subtle prejudices R^2 = .05 without moderator vs. R^2 = .05 with moderator).

The results of the moderated regression for social orientation are presented in table 6. The results show that social orientation, moderated by contact to refugees, can only be used to predict subtle prejudices (β = -.29; p = .00). With R^2 = .08 the explained variation is higher than cultural intelligence. The moderator analysis showed

Table 5. Regression Cultural Intelligence with the Moderator Contact.

	Beta	R^2	Standard Estimation Error	Sig.
Open Prejudices	-.18	.03	6.78	.02
Subtle Prejudices	-.22	.05	7.27	.01
Implicit Prejudices	-.11	.01	.16	.18

Table 6. Regression Social Orientation with the Moderator Contact.

	Beta	R^2	**Standard Estimation Error**	**Sig.**
Open Prejudices	-.13	.02	6.84	.11
Subtle Prejudices	-.29	.08	7.14	.00
Implicit Prejudices	-.02	.00	.16	.80

no significant effect on implicit prejudices (p = .80) and open prejudices (p = .11).

4 Discussion and conclusion

By using different scales and a reaction test mode, it was assessed whether the constructs contact quality, contact quantity, social orientation and cultural intelligence are suitable predictors for open, subtle and implicit prejudices of students towards refugees. In this study it was possible to assess different constructs and prejudice variables. Those scientific steps were made to better understand the current refugee crisis. Hereby, the study makes a valuable contribution to a better understanding of prejudices towards refugees in general, with the aim to conceptualize possible steps in order to counter prejudices.

It was confirmed that cultural intelligence has a negative impact on prejudices, but the impact is relatively weak and the explained variation has proven to be low. The results also show that the relative probability of occurrence of high open prejudices is reduced by high contact quality and cultural intelligence. The relative probability of the occurrence of subtle prejudices displays a similar effect with high contact quality as well as social orientation. Further significant impacts of the four constructs (contact quality, contact quantity, social orientation and cultural intelligence) could not be confirmed in regard to the relative probability of the occurrence of open, subtle as well as implicit prejudices in the data analysis of this study. It has been demonstrated that the inclusion of contact as a moderator for predicting prejudices by the expression of social orientation is only suitable for subtle prejudices.

As a crucial limitation it should be considered that the sample is relatively small, which might have an impact on the measurement of implicit prejudices. Furthermore, the results do not show the presumed interrelations although all used measuring instruments have good quality criteria. This could be explained by the point in time of the assessment. When the study was conducted, the presence of the refugee crisis was high in the media, which might have enhanced related fears and the activation of potential prejudices. Yet, actual contact with refugees presumably remained low. Thus, high contact quantity and therefore a high contact quality is unlikely. Especially, the chosen cohort of students might have been low in contact with refugees. However, the group of students was selected, because its members are quite young on average. The aim was to analyse the attitudes of relatively young people with higher education and a potentially open attitude towards new experiences, ergo towards contacts with refugees.

It requires further research on how contact intensity and contact quality currently influence prejudices towards refugees. In particular, the impact of differences in cultural intelligence, which might reduce implicit and subtle prejudices, needs to be confirmed. The structural equation model e.g. could not be confirmed in this sample. Therefore, there is a need for future research

to analyse how different forms of prejudices are influenced by contacts (like in this case in relation to open prejudices) and cultural intelligence.

References

Allport, G.W. (1981). *The nature of prejudice: 25th Anniversary Edition*. Cambridge: Addison-Wesley.

Ang, S., Van Dyne, L., & Koh, C. (2006). Personality Correlates of the Four-Factor Model of Cultural Intelligence. *Group and Organization Management, 31*(1) 100-123. doi:10.1177/1059601105275267.

Ang, S., Van Dyne, L., Koh, C., NG, K. Y, Templer, K.J., Tay, C., & Chandrasekar, A. (2007). Cultural Intelligence: Its Measurement and Effects on Cultural Judgement and Decision Making, Cultural Adaptation and Task Performance. *Management and Organization Review 3*(3), 335-371. doi: 10.1111/j.1740-8784.2007.00082.x.

Anger, C., Erdmann, V., Plünnecke, A., & Riesen, I. (2010). *Integrationsrenditen: Volkswirtschaftliche Effekte einer besseren Integration von Migranten*. Köln: Medien.

Aronson, E., Wilson, T.D., & Akert, R. (2008). *Sozialpsychologie*. München: Pearson.

Backhaus, K., Erichson, B., Plinke, R., & Weiber, W. (2011). *Multivariate Analysemethoden: Eine anwendungsorientierte Einführung. 13*. Berlin: Springer.

Banaji, MR., & Greenwald, A.G. (2015). *Vorurteile: Wie unser Verhalten unbewusst gesteuert wird und was wir dagegen tun können*. München: dtv.

Benz, W., & Widmann, P. (2007). Langlebige Feindschaften – Vom Nutzen der Vorurteilsforschung für den Umgang mit sozialer Vielfalt. In G. Krell, B. Riedmüller, B. Sieben, & D. Vinz (Hrsg.), *Diversity Studies: Grundlagen und disziplinäre Ansätze* (S. 35-48). Fankfurt: Campus.

Binder, J.F., Zagefka, H., Brown, R., Funke, F., Kessler, T., Mummendey, A. Maquil, A., Demoulin, S., & Leyens, J.-P. (2009). Does contact reduce prejudice or does prejudice reduce contact? A longitudinal test of the contact hypothesis among majority and minority groups in three European countries. *Journal of Personality and Social Psychology, 96*(4), 843-856. doi:10.1037/a0013470.

Blanton, H., Jaccard, J., Strauts, E., Mitchell, G., & Tetlock, P.E. (2015). Toward a meaningful metric of implicit prejudice." *The Journal of Applied Psychology, 100*(5), 1468-1481. doi:10.1037/a0038379.

Butler, G., & McManus, F. (2011). *Psychologie 2*. Stuttgart: Reclam.

Coenders, M., Scheepers, P., Sinderman, P.M., & Verberk, G. (2001). Blatant and subtle prejudice: dimensions, determinants, and consequences; some comments on Pettigrew and Meertens." *European Journal of Social Psychology, 31*(3), 281-297.

Cohrs, J.C., Kämpfe-Hargrave, N., & Riemann, R. (2012). Individual differences in ideological attitudes and prejudice: evidence from peer-report data. *Journal of personality and social psychology, 103*(2), 343–361.

Davies, K., Tropp, L.R., Aron, A., Pettigrew, T., & Wright, S.C. (2011). Cross-group friendships and intergroup attitudes: a meta-analytic review. *Personality and Social Psychology Review, 15*, 332-351.

Degner, J., & Wentura, D. (2008). Messung von Vorurteilen. In L.-E- Petersen & B. Six (Eds.). *Stereotype, Vorurteile und soziale Diskriminierung* (pp. 149-162). Weinheim: Beltz.

Eid, M., Gollwitzer, M., & Schmitt, M. (2015). *Statistik und Forschungsmethoden 4*. Weinheim: Beltz.

European Commission. (2015). Special Eurobarometer 437: Discrimination in the EU in 2015. http://ec.europa.eu/COMMFrontOffice/PublicOpinion/index.cfm/Survey/getSurveyDetail/instruments/SPECIAL/surveyKy/2077. Accessed 2 February 2017.

Fischer, P., Asal, K., & Krueger, J.I. (2013). *Sozialpsychologie für Bachelor: Lesen, Hören, Lernen im Web*. Berlin: Springer.

Fiske, S.T., & North, M.S. (2014). Measures of Stereotyping and Prejudice: Barometers of Bias. In G. Boyle, D. Saklofske, & G. Matthews (Eds), *Measures of Personality and Social Psychological Constructs* (pp. 684-718). Amsterdam. Academic Press.

Fuchs, M. (2007). Diversity und Differenz – Konzeptionelle Überlegungen. In G. Krell, B. Riedmüller, B. Sieben, & D. Vinz (Eds.), *Diversity Studies: Grundlagen und disziplinäre Ansätze* (pp. 17-34). Frankfurt: Campus.

Ganter, S. (2001). ZU SUBTIL? Eine empirische Überprüfung neuer Indikatoren zur Analyse interethischer Beziehungen. *Kölner Zeitschrift für Soziologie und Sozialpsychologie, 53*(1), 111-135.

Girvan, E.J. (2016). Wise Restraints ?: Learning Rules, Not Standards, Reduces the Effects of Stereotypes in Legal Decision-Making. *Psychology, Public Policy, and Law, 22*, 31-45.

Greenwald, A.G., Banaji, M., & Nosek, B. (2015). Statistically Small Effects of the Implicit Association Test Can Have Societally Large Effects. *Journal of Personality and Social Psychology, 108*(4), 553-561.

Greenwald, A.G., McGhee, D.E., & Schwartz, J.L.K. (1998). Measuring Individual Differences in Implicit Cognition: The Implicit Association Test. *Journal of Personality and Social Psychology, 74*(6), 1464-1480.

Greenwald, A.G., Banaji, M., & Nosek, B. (2003). Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology, 85*(2), 197-216.

Gröschke, D. (2013). Kompetenzen im Umgang mit Stress in interkulturellen Settings. In P. Genkova, T. Ringeisen, & F.T.L. Leong (Hrsg.), *Handbuch Stress und Kultur: Interkulturelle und kulturvergleichende Perspektiven* (S. 473-488). Wiesbaden: VS Verlag.

Hansen, K.L., & Sørlie, T. (2012). Ethnic discrimination and psychological distress: A study of Sami and non-Sami populations in Norway. *Transcultural Psychiatry, 49*(1), 26-50.

Heitland, K., & Bohner, G. (2011). An Indirect Paper-and-Pencil Measure of Prejudice: A German Version of Racial Argument Scale. *Current Psychology, 30*(1), 1-21.

Hewstone, M., Lolliot, S., Swart, H., Myers, E., Voci, A., Al Ramiah, A., & Cairns, E. (2014). Intergroup contact and intergroup conflict. *Peace and Conflict: Journal of Peace Psychology, 20*(1), 39-53.

Huynh, V.W., & Fuligni, A.J. (2010). Discrimination hurts: The academic, psychological, and physical well-being of adolescents. *Journal of Research on Adolescence, 20*(4), 916-941.

Islam, M.R., & Hewstone, M. (1993). Dimensions of Contact as Predictors of Intergroup Anxiety, Perceived Out-Group Variability, and Out-Group Attitude: An Integrative Model. *Personality and Social Psychology Bulletin, 19*(6), 700-710.

Jonas, K.J., & Beelmann, A. (2009). Einleitung: Begriffe und Anwendungsperspektiven. In A. Beelmann & K.J. Jonas (Hrsg.), *Diskriminierung und Toleranz* (S. 19-42). Wiesbaden: VS Verlag.

Kanning, U.P. (2009a). *ISK: Inventar sozialer Kompetenzen*. Göttingen: Hogrefe.

Kanning, U.P. (2009b). *Diagnostik sozialer Kompetenzen*. Göttingen: Hogrefe.

Kanning, U.P. (2015). *Personalauswahl zwischen Anspruch und Wirklichkeit: Eine wirtschaftspsychologische Analyse*. Heidelberg: Springer.

Lolliot, S., Fell, B., Schmid, K., Wölfer, R., Swart, H., Voci, A., Christ, O., New, R., & Hewstone, M. (2014). Measures of Intergroup Contact. In G. Boyle, D. Saklofske, & G. Matthews (Eds.), *Measures of Personality and Social Psychological Constructs* (pp. 652-683). Amsterdam: Academic Press.

Matsumoto, D., & Hwang, H.C. (2013). Assessing Cross-Cultural Competence: A Review of Available Tests. *Journal of Cross-Cultural Psychology, 44*(6), 849-873.

Oswald, F.L., Mitchell, G., Blanton, H., Jaccard, J., & Tetlock, P.E. (2013). Predicting ethnic and racial discrimination: a meta-analysis of IAT criterion studies. *Journal of*

Personality and Social Psychology, 105(2), 171-192.

Oswald, F.L., Mitchell, G., Blanton, H., Jaccard, J., & Tetlock, P.E. (2015). Using the IAT to predict ethnic and racial discrimination: small effect sizes of unknown societal significance." *Journal of Personality and Social Psychology, 108*(4), 562-571.

Petersen, L.-E., & Blank, H. (2008). Das Paradigma der minimalen Gruppe. In L.-E. Petersen, & B. Six (Eds.), *Stereotype, Vorurteile und soziale Diskriminierung* (pp. 200-213). Weinheim: Beltz.

Petersen, L.-E. (2008). Vorurteile und Diskriminierung. In L.-E. Petersen, & B. Six (Eds.), *Stereotype, Vorurteile und soziale Diskriminierung* (pp. 192-199). Weinheim: Beltz.

Pettigrew, T.F., & Meertens, R.W. (1995). Subtle and blatant prejudice in Western Europe." *European Journal of Social Psychology, 25*, 57-75.

Pettigrew, T.F., & L.R. Tropp (2006). A Meta-Analytic Test of Intergroup Contact Theory." *Journal of Personality and Social Psychology, 90*(5), 751-783.

Schmitt, M.T., Branscombe, N.R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: a meta-analytic review. *Psychological Bulletin, 140*(4), 921-948.

Schneider, J., Yemane, R., & Weinmann, M. (2014). Diskriminierung am Arbeitsmarkt. Ausmaß, Ursachen und Handlungsperspektiven. http://www.svr-migration.de/wp content/uploads/2014/11/SVR-FB_Diskriminierung-am-Ausbildungsmarkt.pdf. Accessed 12 February 2017.

Sibley, C.G., & Duckitt, J. (2008). Personality and prejudice: a meta-analysis and theoretical review. *Personality and Social Psychology Review, 12*(3), 248–279.

Stephan, W.G., Bachman, G., & Ybarra, O. (1999). Prejudice Toward Immigrants. *Journal of Applied Social Psychology, 29*(11), 2221-2137. doi:10.1111/j.1559-1816.1999.tb00107.x.

Stößel, K., Cohrs, J.C., & Riemann, R. (2009). Vorurteile, Diskriminierung und Toleranz aus Sicht der Persönlichkeitspsychologie. In L.-E. Petersen, & B. Six (Eds.), *Stereotype, Vorurteile und soziale Diskriminierung* (pp. 95-112). Weinheim: Beltz.

Stürmer, S. (2008). Die Kontakthypothese. In L.-E. Petersen, & B. Six (Eds.), *Stereotype, Vorurteile und soziale Diskriminierung* (pp. 283-291). Weinheim: Beltz.

The UN Refugee Agency. (1951). Abkommen über die Rechtsstellung der Flüchtlinge vom 28. Juli 1951. http://www.unhcr.de/fileadmin/user_upload/dokumente/03_profil_begriffe/genfer_fluechtlingskonvention/Genfer_Fluechtlingskonvention_und_New_Yorker_Protokoll.pdf. Accessed 1 June 2016.

Treibel, A. (2011). *Migration in modernen Gesellschaften. Soziale Folgen von Einwanderung, Gastarbeit und Flucht*. Weinheim: Juventa.

Turner, R.N., & Hewstone, M. (2012). Die Sozialpsychologie des Vorurteils.“ In A. Pelinka (Hrsg.), *Vorurteile: Ursprünge, Formen, Bedeutung* (S. 317-364). Berlin: De Gruyter.

Van Dyne, L., Ang, S., & Koh, C. (2008). Development and Validation of the CQS: The Cultural Intelligence Scale." In S. Ang, & L. Van Dyne (Eds.), *Handbook on cultural intelligence: Theory, measurement and applications* (pp. 16-38). Armonk: Sharpe.

Van Dyne, L., Ang, S., & Koh, C. (2009). Cultural intelligence: Measurement and scale development." In M.A. Moodian (Ed.), *Contemporary leadership and intercultural competence: Exploring the cross-cultural dynamics within organizations* (pp. 233-254). Thousand Oaks: Sage.

Van Ravenzwaaij, D., van der Maas, H.N.L., & Wagenmakers, E.-J. (2011). Does the name-race implicit association test measure racial prejudice? *Experimental Psychology, 58*(4), 271-277.

Voci, A., & Hewstone, M. (2003). Intergroup Contact and Prejudice Toward Immigrants in Italy: The Mediational Role of Anxiety and the Moderational Role of Group Salience." *Group Processes and Intergroup Relations, 6*(1), 37-54.

Weiguny, B. (2016). Traumrendite mit Flüchtlingen. http://www.faz.net/aktuell/wirtschaft/wirtschaftspolitik/gewinn-fuer-volkswirtschaft-traumrendite-mit-fluechtlingen-14233528.html. Accessed 12 February 2017.

Weuster, A. (2012). *Personalauswahl II: Internationale Forschungsergebnisse zum Verhalten und zu Merkmalen von Interviewern und Bewerbern*. Wiesbaden: Gabler.

Wirtz, M.A. (2013). *Dorsch – Lexikon der Psychologie*. Bern: Huber.

Zagefka, H., & Nigbur, D. (2009). Akkulturation und Integration ethnischer Gruppen. In A. Beelmann, & K.J. Jonas (Hrsg.), *Diskriminierung und Toleranz* (S. 173-192). Wiesbaden: VS Verlag.

Ziegler, P., & Beelmann, A. (2009). Diskriminierung und Gesundheit. In A. Beelmann, & K.J. Jonas (Hrsg.), *Diskriminierung und Toleranz* (S. 357-378). Wiesbaden: VS Verlag.

Žižek, S. (2015). *Der neue Klassenkampf: Die wahren Gründe für Flucht und Terror*. Berlin: Ullstein.

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