Perceived Competition Explains Regional Differences in the Stereotype Content of Immigrant Groups

Steve Binggeli[1], Franciska Krings[1], and Sabine Sczesny[2]

[1]University of Lausanne, Switzerland, [2]University of Bern, Switzerland

Abstract. This research investigates differences in the stereotype content of immigrant groups between linguistic regions. We expected that immigrant groups who speak the local language of a specific linguistic region would be perceived as more competitive within this region than in another linguistic region. Further, we expected these differences would underlie regional differences in stereotype content, albeit only for the warmth dimension. Predictions were tested in the two largest linguistic regions of Switzerland. As expected, in the German-speaking region, locals perceived German immigrants as more competitive and thus as less warm, whereas in the French-speaking region, locals perceived French immigrants as more competitive and, consequently, as less warm. So, paradoxically, immigrants with strong integration potential are particularly disliked because they are regarded as direct competitors.

Keywords: stereotype content, competition, immigrants, regional differences

Over the past decades, immigrants to Western countries have increased not only in number, but also in cultural and national diversity (International Organization for Migration, 2010). Few studies on attitudes, stereotypes, and behaviors toward immigrants have taken this diversity into account, despite repeated calls for doing so (Binggeli, Dietz, & Krings, 2013; Lee & Fiske, 2006; Pettigrew, 1998). Prominent theoretical models like the stereotype content model (SCM; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, Glick, & Xu, 2002) suggest that stereotypical perceptions of warmth and competence should differ between immigrant groups, depending on the group's perceived competition and respective status. Indeed, Lee and Fiske (2006) demonstrated that this assumption is true for immigrant groups in the United States. However, it is unclear to what extent the stereotype contents of specific immigrant groups are similar within a country (i.e., across regions of the same country). Until now, research has paid little attention to regional differences in warmth and competence stereotypes, maybe because they "did not produce radically different responses" (Fiske et al., 2002, p. 898).

In this research, we propose that regional differences are meaningful even though they may be small because they help to advance our understanding of the mechanisms involved in stereotyping. Drawing on the instrumental model of group conflict (IMGC; Esses, Jackson, & Armstrong, 1998), we argue that regional differences in stereotype content are largely restricted to relevant immigrant groups (i.e., to groups that are similar to the ingroup on dimensions that make them more likely to take over desirable resources) because relevance can vary between regions. Moreover, more relevant groups are perceived as more competitive, motivating ingroup members to reduce these groups' competitiveness. Given that the sociostructural assumption of the SCM predicts that competition costs warmth and status buys competence, we postulate that one way to reduce the perceived competitiveness of relevant groups is to stereotype them as cold. Thus, regional differences in stereotype content should be found for warmth but not for competence stereotypes.

We investigated differences in stereotype content of relevant immigrant groups between linguistic regions, suggesting that a central dimension of immigrant group relevance is the language they speak. Immigrants who speak the local language have a competitive advantage over immigrants who do not. However, in countries where different languages are spoken in different regions (e.g., in Switzerland or Canada), this advantage is valid only for one linguistic region and not for another. Thus, we expected to find differences between linguistic regions in perceived competition and consequently in perceived warmth of immigrant groups who speak one of the local languages.

This research has the potential to make several contributions. It highlights links between two theoretical models, the SCM and the IMGC, by focusing on meaningful regional differences in stereotype content of immigrant groups. More precisely, it informs the SCM by underscoring the importance of considering outgroup relevance as a determinant of stereotype content. Moreover, it informs the IMGC by focusing the compensatory mechanism of outgroup derogation on one dimension, namely, on perceived warmth. Finally, different stereotype contents elicit different behaviors (Cuddy, Fiske, & Glick, 2007). Thus, regional differences may extend to differences in ways immigrant groups are treated. Our study paradoxically suggests that immigrant groups who have a strong potential to integrate well into the host country, because they speak the local language, are particularly disliked and, hence, may face additional barriers.

Two Fundamental Dimensions of Stereotype Content: Warmth and Competence

From an evolutionary perspective (Fiske, Cuddy, & Glick, 2007), the basic human need for survival drives members of one group to identify another group's intentions, that is, its warmth (e.g., is the group friendly, good natured, sincere?) and its capacity to enact its intentions, that is, its competence (e.g., is the group capable, skillful, confident?). According to the sociostructural assumption of the SCM, the origins of perceived warmth and competence lie in competition and status, respectively (Caprariello, Cuddy, & Fiske, 2009; Russell & Fiske, 2008). Typically, in a world of limited resources, outgroups perceived as intending to maximize their resources are perceived as having negative intentions toward the ingroup. In other words, competitive groups are judged to be colder than cooperative ones. Further, status is an indicator of the amount of resources that groups possess and hence of their ability to control these resources. Thus, higher status groups are perceived as more competent than lower status groups.

Various groups have been studied in the SCM framework, but little attention has been paid to immigrant groups. To our knowledge, only one study examined stereotype contents of specific immigrant groups (Lee & Fiske, 2006). It showed that warmth and competence stereotypes of immigrants in the US differed remarkably as a function of their national origin. Thus, the stereotype of a specific immigrant group can differ from the incompetent and not trustworthy stereotype that is associated with the immigrant population, as a whole (Eckes, 2002).

Regional differences in stereotype contents of specific immigrant groups have not yet been investigated. Nevertheless, regional differences in anti-immigrant attitudes (i.e., attitude toward the entire immigrant population) do exist and are distinguishable from both individual and national differences in anti-immigrant attitudes (Rustenbach, 2010; Sibley et al., 2013; Vallas, Zimmerman, & Davis, 2009), suggesting the existence of regional differences in stereotypes. Moreover, anti-immigrant attitudes are consistently related to economic indicators such as unemployment rates or, put differently, to the level of competition over important resources. Indeed, a large body of research has shown that people who perceive immigrants as competing for desirable resources hold more negative attitudes toward them (Esses et al., 1998). Thus, competition plays a crucial role in explaining stereotypes and prejudice and, as we show below, for explaining regional differences in stereotype content for specific immigrant groups.

Regional Differences in Stereotype Content: The Role of Competition

Several theoretical models of intergroup relations, including the IMGC (Esses et al., 1998), stress the importance of competition for understanding stereotypes and prejudice. More specifically, the IMGC postulates that the perceived competitiveness of a group varies as a function of two factors: The outgroup's similarity to the ingroup on dimensions that are relevant for obtaining desired resources and its interest in the same resources that the ingroup is interested in. The final aim of the ingroup's reaction toward a relevant outgroup is to reduce the outgroup's competitiveness. By doing so, the ingroup protects its privileged access to desirable resources and maintains its group status. Ingroup efforts to reduce outgroup competitiveness comprise outgroup derogation, discrimination, and avoidance.

Outgroup relevance may be particularly pertinent for understanding regional differences in stereotype content of immigrant groups because the relevance of a specific immigrant group can differ from one region to the next, within the same country. More specifically, one way to understand regional differences in stereotype content of immigrant groups is to identify skills that might help one immigrant group to take over desirable resources in one region but not in another.

Job skills and education are significant dimensions when groups compete for resources, such as economic advantages, jobs, or power (Esses, Dovidio, Jackson, & Armstrong, 2001). We argue that, for immigrants, mastery of the local language constitutes another crucial skill in this competition. In general, integration is expected to be easier for immigrants who speak the local language or have a culture similar to that of the host country (Schwartz, Unger, Zamboanga, & Szapocznik, 2010). Indeed, when arriving in a host country, one can have many skills and diplomas, but if one does not speak the local language, it is difficult to integrate into the local

labor market and society. Thus, mastery of the local language is a crucial skill for integration as well as an important competitive advantage for immigrants, especially if they are well educated. This skill may be the precise reason why locals perceive immigrant groups who speak the local language as relevant competitors. Furthermore, it follows that for countries with different linguistic regions, the same immigrant group can be perceived as a relevant competitor in one linguistic region but not in another.

Many countries consist of regions that differ with respect to spoken language (e.g., Canada, Belgium, Finland, Switzerland). Switzerland, where the present study was conducted, has four linguistic regions. The two largest ones are the German-speaking (63.9% of the population speak German) and the French-speaking (19.5% of the population speak French) regions (Bickel, 2006). The German and French dialects spoken in these two regions are very similar to those spoken in Germany and France, respectively. Moreover, German and French immigrants in Switzerland tend to be highly educated. Accordingly, they typically occupy high-status or management positions (Liebig, Kohis, & Krause, 2012; Swiss Federal Statistical Office, 2013). Thus, we expected German immigrants to be perceived as more competitive in the German-speaking than in the French-speaking region, and French immigrants to be perceived as more competitive in the French-speaking region than in the German-speaking region.

According to the IMGC, locals might strategically attempt to reduce the competitiveness of relevant immigrant competitors. One way to achieve this goal is to derogate these groups. However, the IMGC is not precise with respect to the dimension on which groups are likely to be derogated. At this point, the SCM is more specific. The sociostructural assumption of the model specifies that competition reduces warmth and status increases competence. Hence, we should expect variations in competition to affect warmth, but not competence perceptions. Both the IMGC and the SCM define competition as zero-sum beliefs. That is, the way group competition is defined in the IMGC – the "belief that the more the other group obtains, the less is available for one's own group" (Esses et al., 2001, p. 394) – is similar to the way competition is defined in the SCM: "Competition pits the desired resources of one social group against others, and to compete successfully, one must intend to maximize one's resources over others' resources" (Cuddy et al., 2008, p. 95). Thus, it seems valid to conclude that locals derogate immigrant groups that are highly skilled and speak the local language on warmth but not on competence.

Based on these considerations, we expected regional differences in warmth perceptions of relevant immigrant groups, namely, of French and German immigrants. Moreover, we expected differences in perceived competition to underlie these regional differences in warmth perceptions.

Hypothesis 1: People in the German-speaking region of Switzerland perceive German immigrants as less warm than people in the French-speaking region do.

Hypothesis 2: People in the French-speaking region of Switzerland perceive French immigrants as less warm than people in the German-speaking region do.

Hypothesis 3: Perceived competition mediates the effect of region on warmth perceptions stated in Hypothesis 1.

Hypothesis 4: Perceived competition mediates the effect of region on warmth perceptions stated in Hypothesis 2.

We tested these hypotheses with data from a large-scale study on stereotypes of various immigrant groups in Switzerland. As mentioned above, this study focuses on differences between linguistic regions in warmth and competence stereotypes of German and French immigrants. For a general description of the stereotypes of the nine most salient immigrant groups in Switzerland, see Binggeli, Krings, and Sczesny (2013).

Method

Participants

German-Speaking Region

A group of 186 undergraduates from a first-year course in psychology at a mid-size university in the German-speaking part of Switzerland completed the questionnaire. After excluding participants who had lived less than 5 years in Switzerland, the final sample consisted of 176 participants (109 women, mean age = 22.36, SD = 4.37). Most were Swiss (88%) and had been born in Switzerland (88%).

French-Speaking Region

Participants were recruited in lectures at a mid-size University in French-speaking Switzerland. A group of 216 students completed the questionnaire (response rate: 40%). For the analyses, we only included participants who had lived in Switzerland more than 5 years (n = 179, 95 women, mean age = 20.16, SD = 1.79). Most participants were Swiss (68%) and had been born in Switzerland (82%).

Questionnaire and Procedure

We used the German and French versions of the questionnaire developed by Cuddy and colleagues (2009) in a cross-cultural validation study of the SCM to measure warmth, competence, competition, and status. Warmth items were friendly, warm, good-natured, and sincere (α = .86 in the Swiss German region; α = .84 in the Swiss French region). Competence items were competent, confident, capable,

and skillful (α = .78; α = .74). Perceived competition was measured with three items[1] (α = .72; α = .74): "How much does special treatment given to the members of this group make things more difficult for the Swiss?" "How much do market resources that go to the members of this group take away from the market resources of the Swiss?" "As the members of this group gain power, to what extent do Swiss lose power?" Perceived status was measured with three items (α = .85; α = .83): "How prestigious are the jobs typically achieved by members of this group?" "How economically successful have members of this group been?" "How well-educated are members of this group?" All responses were indicated on 5-point scales (1 = *not at all*, 5 = *extremely*).

Participants rated nine immigrant groups living in Switzerland which had been identified as salient immigrant groups in a pilot study conducted in the French-speaking and the German-speaking regions (Binggeli, Krings, & Sczesny, 2013)[2]. The groups were immigrants from Africa, the Balkans, Eastern Europe, France, Germany, Italy, Portugal, Spain, and Turkey. To control for order effects, we created 24 versions of the questionnaire that differed with respect to the order in which groups were presented.

Results

To test our first two hypotheses, we used a two-step procedure. In the first step, we performed two regression models for panel data, one predicting warmth and one predicting competence perceptions, estimating random effects and robust standard errors by clustering the data at the participant level. We used region (0 = French-speaking, 1 = German-speaking), immigrant origin (0 = Africa, 1 = Balkans, 2 = Eastern Europe, 3 = France, 4 = Germany, 5 = Italy, 6 = Portugal, 7 = Spain, 8 = Turkey), and their interaction terms to predict warmth and competence perceptions. To isolate the effect of region on both warmth and competence, we controlled for the following variables: participant sex (0 = men, 1 = women), place of birth (0 = born abroad, 1 = born in Switzerland), citizenship (0 = Swiss, 1 = non-Swiss, 3 =

dual citizen: Swiss plus another citizenship), and ratings of groups' status. Although we did not have specific hypotheses concerning competence perceptions, we performed the regression model with competence as dependent variable to determine whether the expected regional differences were indeed restricted to warmth perceptions.

Overall, the results of these two models were significant for both warmth, $\chi^2(22)$ = 1630.96, p < .001, *within R^2* = 50.52%, and competence, $\chi^2(22)$ = 1711.90, p < .001, *within R^2* = 61.92%. Significance levels of the interaction terms of these models are not directly relevant for testing our hypotheses because they indicate regional differences in the evaluation of African immigrants (the reference category) compared to each of the eight other immigrant groups. Hence, the aim of this first step mostly consisted of decomposing the variance of warmth and competence by taking into account the influence of all predictors.

In the second step, we estimated the marginal means of the coefficients obtained from the two regression models and performed a series of Wald postestimation tests to compare the marginal means of the nine immigrant groups in the two linguistic regions, separately for both warmth and competence. Although Hypotheses 1 and 2 concern only immigrants from Germany and France, we performed the Wald postestimation tests for every immigrant group, to show that regional differences are most pronounced for these two groups. Given the number of the tests, Bonferroni adjusted p-values are reported (nonadjusted p-values were multiplied by nine, which corresponds to one test per immigrant group). Descriptive statistics for German and French immigrants are shown in Figure 1.

For warmth perceptions, results of the Wald postestimations tests showed four regional differences. Supporting Hypothesis 1, immigrants from Germany were perceived as less warm in the German-speaking region (M = 2.92, SD = 0.73) than in the French-speaking region (M = 3.27, SD = 0.63), $\chi^2(1)$ = 35.37, p < .001. Furthermore, immigrants from France were perceived as less warm in the French-speaking (M = 3.02, SD = 0.79) than in the German-speaking region (M = 3.43, SD = 0.55), confirming Hypothesis 2, $\chi^2(1)$ = 32.54, p < .001. Two additional regional differences emerged, for immigrants from Africa, $\chi^2(1)$ = 9.31,

---

[1] Items used in the SCM questionnaire to measure competition are similar to those used in IMGC studies (Esses et al., 1998, p. 715). Examples of items from the IMGC scale of zero-sum competition used in Canada are "Immigrants tend to open up small businesses, which means that there are fewer business opportunities available to Canadians already living here"; "Money spent on social services for immigrants means less money for services for Canadians already living here"; "The more power immigrants obtain in Canada, the more difficult it is for Canadians already living here."

[2] The pilot study is described in detail in Binggeli et al. (2013). It closely followed the procedure of Lee and Fiske (2006). Participants were 112 undergraduates and nonstudents in the German-speaking region and 107 undergraduates and nonstudents in the French-speaking region. Instructions were as follows: "Please list groups of immigrants that you personally think are the main immigrant groups living in Switzerland (according to their country of origin)." Only groups cited by more than 20% of the participants were considered as salient. In the German-speaking region, the most salient groups were immigrants from the Balkans (85.3%), Italy (84.4%), Germany (77.9%), Turkey (49.3%), African countries (47.9%), Spain (44.2%), Portugal (37%), Eastern European countries (33.1%), France (27.7%), and Tamil from India and Sri-Lanka (21.5%). In the French-speaking region, the most salient groups were immigrants from Italy (87.9%), Portugal (87.9%), Balkans (86%), Spain (65.4%), France (40%), African countries (38.3%), Germany (29.9%), Eastern European countries (27.1%), and Turkey (25.2%). Taken together, the same nine immigrant groups emerged as salient in the two linguistic regions. One exception was the Tamils from India and Sri-Lanka, who proved to be salient only in the German-speaking region. However, for the main study, only immigrant groups that were salient in both regions were used.
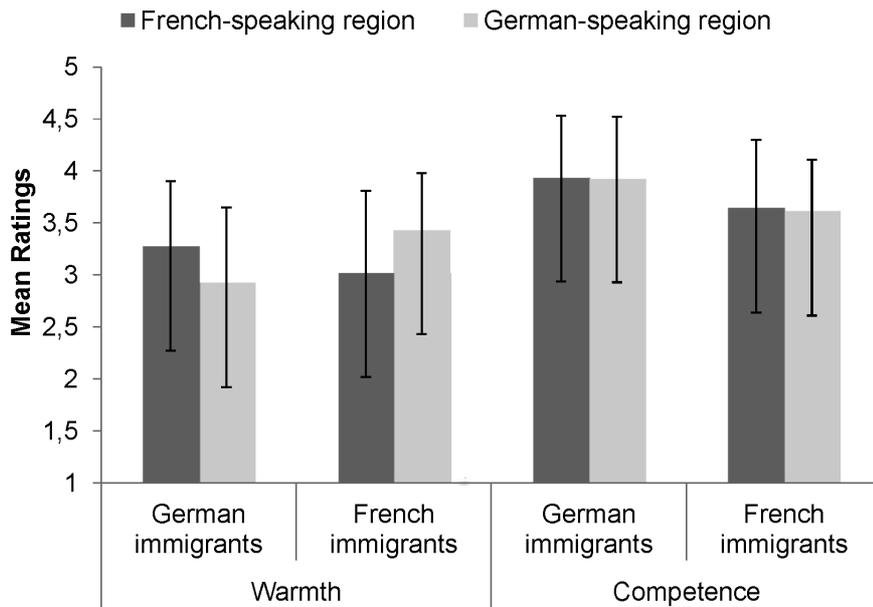
Figure 1. Warmth and competence perception of German and French immigrants, within linguistic regions (means and standard deviations).

$p = .020$, and the Balkans, $\chi^2(1) = 10.06$, $p = .013$. Both were perceived as less warm in the German-speaking ($M = 2.87$, $SD = 0.85$; $M = 2.22$, $SD = 0.81$) than in the French-speaking region ($M = 3.22$, $SD = 0.82$; $M = 2.39$, $SD = 0.78$). However, regional differences in warmth perceptions were stronger for immigrants from Germany and France than they were for immigrants from Africa and the Balkans, as indicated by a comparison of the effects of region of the two relevant immigrant groups (French and Germans) with the two less-relevant immigrant groups (Africans and people from the Balkans), $\chi^2(1) = 5.58$, $p = .018$. Thus, as expected, regional differences in warmth perceptions were most pronounced for French and German immigrants.

Concerning competence perceptions, results of the Wald postestimation tests revealed one regional difference. Portuguese immigrants were perceived as more competent in the French-speaking ($M = 3.41$, $SD = 0.62$) than in the German-speaking region ($M = 3.16$, $SD = 0.54$), $\chi^2(1) = 12.71$, $p = .003$. All other effects of region on competence perceptions were not significant. So, as expected, there were no regional differences in competence perceptions for immigrants from France and Germany.

Hypotheses 3 and 4 postulate that differences in perceived competition underlie regional differences in perceived warmth of French and German immigrants. To test these hypotheses, we used two-stage least squares (2SLS) estimator. 2SLS is a well-known method from economics (for an explanation see Kennedy, 2003) to estimate causal effects (Antonakis, Bendahan, Jacquart, & Lalive, 2010) which has recently received more attention in psychology (e.g., Gennetian, Magnuson, & Morris, 2008). We selected 2SLS because warmth and competition are two endogenous variables gathered from the same source at the same time. Because they may share an omitted common cause, one cannot assume that their disturbance terms – which

reflect all unmeasured causes affecting both variables – are independent. If these terms were indeed correlated, testing mediation with OLS regression (or maximum likelihood) would produce biased estimates. The significance of this correlation (i.e., the residualized correlation between the two endogenous variables) can be tested in 2SLS regression by using the Hausman test (1978) for endogeneity. The null hypothesis of this test is that the endogenous regressor (in this case, competition) can be treated as exogenous. If this hypothesis is not supported, the endogeneous regressor must be "instrumented" using 2SLS. The 2SLS estimator uses the portion of variance that the instrument (in this case, region) predicts in competition, which is shared with warmth, to estimate the effect of competition on warmth. If region is exogenous, this portion of variance will be isolated from the error term of warmth. Given that our model is just-identified, we cannot estimate statistically the relationship between region and the error term of warmth in our model. Hence, we simply assumed that region is exogenous, and estimated the system of equations specified below, once for German and once for French immigrants, with the 2SLS estimator. Then, we tested the hypothesized indirect effect of region on warmth through competition by using a bootstrapping approach (Efron & Tibshirani, 1993; Stine, 1989).

In the first stage:

$$\text{Competition} = \beta_0 + \beta_1 \text{region} + u_i \qquad (1)$$

In the second stage:

$$\text{Warmth} = \beta_0 + \beta_1 \text{competition} + e_i \qquad (2)$$

Results for German immigrants showed that region explained a significant proportion of the variance in perceived competition, $b = 0.46$, $t = 4.51$, $p < .001$, $F(1, 350)$

= 20.37, $p < .001$: German immigrants were perceived as more competitive in the German-speaking ($M = 3.01$, $SD = 1.01$) than in the French-speaking region ($M = 2.55$, $SD = 0.88$). Further, the variance of perceived competition that was predicted by region had a significant impact on perceived warmth of German immigrants, $b = -0.78$, $z = -3.43$, $p = .001$, $F(1, 350) = 11.70$, $p < .001$. The underidentification test showed that the instrumental variable (region) was correlated with the endogenous regressor (competition), $\chi^2(1) = 19.35$, $p < .001$, indicating that the equation is identified. Further, the endogeneity test was significant, $\chi^2(1) = 18.76$, $p < .001$, indicating that the endogenous regressor could not be treated as an exogenous variable. Finally, results of the bootstrapping approach with 1,000 replications indicate that region had an indirect effect on warmth through competition, 95% C.I. [–0.49, –0.20]. Taken together, results support Hypothesis 3 (German immigrants were perceived as more competitive in the German-speaking than in the French-speaking region), and this difference explained why German immigrants were perceived as less warm in the German-speaking than in the French-speaking region.

For French immigrants, region was unrelated to competition, $b = -0.03$, $t = -0.36$, $p = .716$. To better understand this result, we conducted some complementary analyses. First, an examination of the correlations between region and the ratings of French immigrants on each of the three items of the competition scale revealed a regional difference for one of the three items only: The belief that, as French immigrants gain power, the Swiss lose their power was stronger in the French-speaking than in the German-speaking region, $r = -.19$, $p < .001$. We then analyzed whether this specific facet of perceived competition, namely, competition for power, underlies regional differences in warmth perceptions of French immigrants. To this end, we performed the same 2SLS regression as explained above, but used only the power competition item. Results showed that indeed region was related to perceived power competition of French immigrants, $b = -0.44$, $t = -3.65$, $p < .001$, $F(1, 349) = 13.35$, $p < .001$, so that French immigrants were perceived as competing more for power in the French-speaking ($M = 2.94$, $SD = 1.19$) than in the German-speaking region ($M = 2.50$, $SD = 1.06$). Further, the proportion of variance in perceived power competition that was explained by region had a significant impact on perceived warmth, $b = -0.92$, $z = -3.18$, $p = .001$, $F(1, 349) = 10.08$, $p < .001$ The underidentification test showed that the equation is identified, $\chi^2(1) = 12.93$, $p < .001$. Moreover, the endogeneity test was significant, $\chi^2(1) = 25.07$, $p < .001$, indicating that the competition item cannot be treated as an exogenous variable. Finally, results of the bootstrapping approach with 1,000 replications revealed that region had an indirect effect on warmth through perceived competition for power, 95% C.I. [0.25, 0.53]. In sum, Hypothesis 4 was partially supported. Regional differences in perceived competition of French immigrants were restricted to a specific facet of competition. The belief that, as French immigrants gain power, Swiss lose power was stronger in the French- than in the German-speaking region. The difference in perceived competition for power explained why French immigrants were perceived as less warm in the French-speaking than in the German-speaking region.

Discussion

This research systematically examined regional differences in stereotype contents of immigrant groups in Switzerland, demonstrating that regional differences are largely restricted to warmth perceptions of relevant immigrant groups and driven – at least partially – by perceived competition. More specifically, building on the IMGC (Esses et al., 1998), we expected regional differences in perceived competition of German and French immigrants because members of these two groups are highly skilled and speak the same language as locals living in the German-speaking and French-speaking regions of Switzerland, respectively. Drawing on the sociostructural assumption of the SCM (Fiske et al., 2007), we expected these regional differences in competition to motivate locals to derogate German or French immigrants on warmth but not on competence.

In sum, the results of this study supported most, albeit not all, hypotheses. German immigrants were perceived as less warm (though equally competent) in the German-speaking region than in the French-speaking region of Switzerland. The opposite was true for French immigrants: They were perceived as less warm (though equally competent) in the French-speaking than in the German-speaking region. Moreover, these differences in warmth perceptions were due to differences in perceived competition. As such, this research demonstrates meaningful regional differences in stereotype content of immigrant groups as well as the mechanism that underlies these differences. Further, it highlights new links between two prominent theoretical models, the IMGC and the SCM. More precisely, it shows that derogation, as a mechanism to reduce outgroup competitiveness, is limited to one dimension of social perception, namely, warmth, at least for certain groups. Furthermore, it underscores the importance of considering specific outgroup characteristics as factors determining stereotype content. Some immigrant groups are more relevant than others, namely, those that have skills that render them capable to take over desired resources. Often, it is the very same skills (e.g., language competencies, education) that would make these immigrants more likely to integrate easily into the host society. However, this study shows that, paradoxically, these immigrants are particularly disliked, ultimately hindering their integration.

As mentioned above, the results supported most but not all hypotheses. More specifically, while regional differences in perceived warmth emerged as expected, regional differences in perceived competition were somewhat less conclusive. For French immigrants, regional differences were

restricted to perceived competition for power. Several factors may explain this finding. First, it may be due to the fact that more than 60% of the Swiss population speaks German, whereas only about 20% speaks French. From this perspective, the competitive linguistic advantage of French immigrants may not have been perceived as particularly strong to take over locals' resources. Indeed, in Switzerland, speaking German is often considered a stronger asset than speaking French, for instance, for obtaining a management position in the government or a large organization. Second, differences in the salience of the immigrant groups may play a role. Results of the pilot study showed that regional differences in salience were smaller for French than for German immigrants, suggesting that regional differences in competition may be weaker as well. To shed some light on this question, we performed an additional panel regression analysis, using the salience of immigrant groups (i.e., percentages of participants mentioning each immigrant group in the two regions, in the pilot study) to predict their perceived competitiveness in the present study. However, this relationship was not significant, showing that perceived competition is unrelated to salience, at least in this study. Third, facets of competition may be differentially related to different immigrant groups. Results revealed that French immigrants were primarily perceived as competitors for power, whereas German immigrants were perceived as competitors in several domains. Indeed, locals may compete with immigrants for different resources, including "economic advantages, such as jobs and money, as well as social, political, and economic power" (Esses et al., 2001, p. 394). Similarly, integrated threat theory distinguishes between types of threats that immigrants (and other outgroups) may represent, namely, between realistic threats (i.e., threats to political and economical power) and symbolic threats (i.e., threats to values, beliefs, morals, and attitudes, see Stephan et al., 2005; Stephan & Stephan, 2000; Stephan, Ybarra, Bachman, 1998). Some groups are perceived of more as a realistic threat, others more as a symbolic threat, and ingroup members' attitudinal and behavioral responses may differ accordingly. The competition scale used in our study does not allow for clearly distinguishing between different types of threats. But the results suggest that regional differences in stereotype content of relevant immigrant groups may be better understood by considering a more fine-grained conceptualization of the types of resources for which these groups are perceived as competing for with locals.

Limitations and Future Directions for Research

We investigated differences in stereotype content between linguistic regions and hence limited our focus to linguistic similarities of immigrants with locals. However, regional differences are in fact not limited to linguistic differences.

For example, Hall and colleagues (2011) recently showed that highly skilled immigrants are more present in metropolitan than in rural areas in the United States. Our research suggests that these immigrants are probably perceived as more relevant competitors and, as a consequence, more likely to be stereotyped as cold but competent in metropolitan areas than in rural areas.

In line with assumptions of the IMGC, we found that outgroups that are similar to the ingroup on dimensions relevant to accessing resources are likely to be derogated. The distinctiveness threat theory (Baron & Byrne, 2000; Byrne, 1971) makes a similar assumption but proposes a different mechanism to explain outgroup derogation, based on perceived similarity with the ingroup. More specifically, ingroup members should derogate those outgroups that are (too) similar, because these outgroups threaten the uniqueness of the ingroup's social identity. Indeed, studies on international comparisons have observed that inhabitants of small nations typically dislike inhabitants of larger neighbor nations that speak the same or a similar language (Van Oudenhoven, Askevis-Leherpeux, Hannover, Jaarsma, & Dardenne, 2002). Moreover, similar findings have been demonstrated for the attitudes of the Swiss toward French and Germans, as nations, also revealing some regional differences (Matser et al., 2010; Van Oudenhoven, Selenko, & Otten, 2010). This suggests that the regional differences in warmth perceptions found in our study may have been driven by distinctiveness threats, in addition to or instead of competition threats. We did not measure perceived similarity, so this question remains to be answered by future research. Future studies should investigate the relations between both perceived similarity and competition to determine their specific roles for regional differences in stereotype content of immigrant groups.

Finally, some unexpected regional differences in warmth perceptions emerged. More specifically, immigrants from Africa and the Balkans were perceived as warmer (though equally competent) in the French- than in the German-speaking region. Regional differences in warmth were smaller for these groups than for German and French immigrants, supporting our contention that regional differences in warmth perceptions are most pronounced for relevant immigrant groups. Nevertheless, it remains unclear why these groups were stereotyped differently in the two linguistic regions. They cannot be considered relevant outgroups, in the sense of the IMGC, because these immigrants typically have lower educational and professional skill levels (Swiss Federal Statistical Office, 2013), and they do not speak the local language, excluding explanations related to competition. Neither can they be considered outgroups that are particularly similar to the ingroup, i.e., the Swiss, excluding explanations related to distinctiveness threat. However, other regional factors that were not captured by our study (e.g., differences in political climate) may explain this finding, encouraging future research to explore additional dimensions of regional differences to explain stereotype content.

Conclusion

This research demonstrates meaningful regional differences in stereotype content of relevant immigrant groups as well as their underlying mechanisms. We found that German and French immigrants in Switzerland were derogated on warmth – but not on competence – in the linguistic region of the country where they possess a competitive advantage (i.e., speak the same language as locals) compared to the region where they do not have this advantage. These regional differences in warmth were explained by perceived competition. As such, this research points out an interesting paradox: Immigrants who actually have a strong potential to integrate well into the host society due to their language skills are particularly disliked because they are perceived as strong competitors by locals.

Acknowledgments

References

Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On making causal claims: A review and recommandations. *The Leadership Quarterly*, *21*, 1086–1120. doi 10.1016/j.leaqua.2010.10.010

Baron, R. A., & Byrne, D. (2000). *Social psychology*. Boston, MA: Allyn & Bacon.

Bickel, H. (2006). Switzerland: Language situation. In K. Brown (Ed.), *Encyclopedia of language and linguistics* (2nd ed., Vol. 13, pp. 323–325). Amsterdam: Elsevier.

Binggeli, S., Dietz, J., & Krings, F. (2013). Immigrants: A forgotten minority. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *6*, 107–113. doi 10.1111/iops.12019

Binggeli, S., Krings, F., & Sczesny, S. (2013). Stereotype content of immigrant groups in Switzerland. Manuscript submitted for publication.

Byrne, D. (1971). *The attraction paradigm*. Buckingham, UK: Open University Press.

Caprariello, P. A., Cuddy, A. J. C., & Fiske, S. T. (2009). Social structure shapes cultural stereotypes and emotions: A causal test of the stereotype content model. *Group Processes and Intergroup Relations*, *12*, 147–155. doi 10.1177/1368430208101053

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology*, *92*, 631–648. doi 10.1037/0022-3514.92.4.631

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 40, pp. 61–149). San Diego, CA: Elsevier.

Cuddy, A. J. C., Fiske, S. T., Kwan, V. S. Y., Glick, P., Demoulin, S., Leyens, J. P., Bond, M. H., . . . Ziegler, R. (2009). Stereotype content model across cultures: Toward universal similarities and some differences. *British Journal of Social Psychology*, *48*, 1–33. doi 10.1348/014466608X314935

Eckes, T. (2002). Paternalistic and envious gender stereotypes: Testing predictions from the stereotype content model. *Sex Roles*, *47*, 99–114. doi 10.1023/A:1021020920715

Efron, B., & Tibshirani, R. (1993). *An introduction to the bootstrap*. New York: Chapter & Hall.

Esses, V. M., Dovidio, J. F., Jackson, L. M., & Armstrong, T. L. (2001). The immigration dilemma: The role of perceived group competition, ethnic prejudice, and national identity. *Journal of Social Issues*, *57*, 389–412. doi 10.1111/0022-4537.00220

Esses, V. M., Jackson, L. M., & Armstrong, T. L. (1998). Intergroup competition and attitudes toward immigrants and immigration: An instrumental model of group conflict. *Journal of Social Issues*, *54*, 699–724. doi 10.1111/0022-4537.911998091

Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences*, *11*, 77–83. doi 10.1016/j.tics.2006.11.005

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*, 878–902. doi 10.1037//0022-3514.82.6.878

Gennetian, L. A., Magnuson, K., & Morris, P. A. (2008). From statistical associations to causation: What developmentalists can learn from instrumental variables techniques coupled with experimental data. *Developmental Psychology*, *44*, 381–394. doi 10.1037/0012-1649.44.2.381

Hall, M., Singer, A., De Jong, G. F., & Roempke Graefe, D. (2011). *The geography of immigrant skills: Educational profiles of metropolitan areas*. Washington, DC: Metropolitan Policy Program at Brookings Institution.

Hausman, J. (1978). Specification tests in Econometrics. *Econometrica*, *46*, 1251–1271. doi 10.2307/1913827

International Organization for Migration. (2010). *World migration report 2010 – The future of migration: Building capacities for change*. Retrieved from http://publications. iom.int/bookstore/index.php?main_page=product_info&cPath37&products_id=653&language=en

Kennedy, P. (2003). *A guide to econometrics* (5th ed.). Cambridge, MA: MIT.

Lee, T. L., & Fiske, S. T. (2006). Not an outgroup, not yet an ingroup: Immigrants in the stereotype content model. *International Journal of Intercultural Relations*, *30*, 751–768. doi 10.1016/j.ijintrel.2006.06.005

Liebig, T., Kohis, S., & Krause, K. (2012). *The labor market integration of immigrants and their children in Switzerland*. OECD Social, Employment and Migration Working Papers No. 128, Directorate for Employment, Labor and Social Affairs. Paris: OECD Publishing.

Matser, C., Van Oudenhoven, J. P., Askevis-Leherpeux, F., Florack, A., Hannover, B., & Rossier, J. (2010). Impact of relative size and language on the attitudes between nations and linguistic groups: The case of Switzerland. *Applied Psychology*, *59*, 143–158. doi 10.1111/j.1464-0597.2008.00369.x

Pettigrew, T. F. (1998). Reactions toward the new minorities of Western Europe. *Annual Review of Sociology*, *24*, 77–103. doi 10.1146/annurev.soc.24.1.77

Russell, A. M. T., & Fiske, S. T. (2008). It's all relative: Competition and status drive interpersonal perception. *European Journal of Social Psychology*, *38*, 1193–1201. doi 10.1002/ejsp.539

Rustenbach, E. (2010). Sources of negative attitudes toward immigrants in Europe: A multilevel analysis. *International Migration Review*, *44*, 53–77.

Schwartz, S. J., Unger, J. B., Zamboanga, B. L., & Szapocznik, J. (2010). Rethinking the concept of acculturation implications for theory and research. *American Psychologist*, *65*, 237–251. doi 10.1037/a609330

Sibley, C. G., Duckitt, J., Bergh, R., Osborne, D., Perry, R., Asbrock, F., Robertson, A., . . . Barlow, F. K. (2013). A dual process model of attitudes toward immigration: Person × residential area effects in a national sample. *Political Psychology*. doi 10.1111/pops.12009

Stephan, W. G., Renfro, C. L., Esses, V. M., Stephan, C. W., & Martin, T. (2005). The effects of feeling threatened on attitudes toward immigrants. *International Journal of Intercultural Relations*, *29*, 1–19. doi 10.1016/j.ijintrel.2005.04.011

Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination: Claremont symposium on applied social psychology* (pp. 23–46). Hillsdale, NJ: Erlbaum.

Stephan, W. G., Ybarra, O., & Bachman, G. (1999). Prejudice toward immigrants. *Journal of Applied Social Psychology*, *29*, 2221–2237. doi 10.1111/j.1559-1816.1999.tb00107.x

Stine, R. (1989). An introduction to bootstrap methods. *Sociological Methods and Research, 18*, 243–291.

Swiss Federal Statistical Office. (2013). *Migration and integration*. Retrieved from http://www.bfs.admin.ch/bfs/portal/en/index/themen/01/07.html

Vallas, S. P., Zimmerman, E., & Davis, S. N. (2009). Enemies of the state? Testing three models of anti-immigrant sentiment. *Research in Social Stratification and Mobility*, *27*, 201–217.

Van Oudenhoven, J. P., Askevis-Leherpeux, F., Hannover, B., Jaarsma, R., & Dardenne, B. (2002). Asymmetrical international attitudes. *European Journal of Social Psychology*, *32*, 275–289. doi 10.1002/ejsp.89

Van Oudenhoven, J. P., Selenko, E., & Otten, S. (2010). Effects of country size and language similarity on international attitudes: A six-nation study. *International Journal of Psychology*, *45*, 48–55. doi 10.1080/00207590902914069

Steve Binggeli

Faculty of Business and Economics
Department of Organizational Behavior
University of Lausanne
Quartier Unil Dorigny, Internef 621
1015 Lausanne
Switzerland
E-mail steve.binggeli@unil.ch