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The Effect of Intra-Sexual Competition on Anti-Immigrant Attitudes

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Master's Thesis in Psychology

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<p>Abstract:</p> <p>As immigration increases locals will experience increased intra-sexual competition (i.e., competition between same sex individuals over potential partners). Due to individual differences in mate value, some individuals will be more negatively affected by increased competition. Here, we tested the hypothesis that anti-immigrant attitudes could be partly explained by intra-sexual competition, by presenting participants with masculinized/feminized images of males and females, and asking participants to report whether the person on the image should be permitted residence and whether participants would be willing to help the person integrate. We also measured participants mate value. We found that both men and women were more negative towards male than female immigrants. As expected, individuals with lower mate value were more negative towards immigrants. A follow-up study revealed that the experimental manipulation of facial masculinity/femininity was only effective for women. Hence, it remains unclear whether attractive male immigrants elicit more negative attitudes from same sex individuals. In summary, we found tentative support for our hypothesis that intra-sexual competition contributes to explaining anti-immigrant attitudes.</p>	
<p>Keywords: anti-immigrant attitudes, racism, intra-sexual competition, mate value, evolution</p>	
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Abstrakt: <p>I takt med att invandring ökar kommer även intrasexuell tävlan (tävlan mellan individer av samma kön om tillgång till potentiella partners) öka i mottagarländerna. På grund av individuella skillnader i partnervärde så kommer vissa individer att påverkas mera av förhöjd tävlan än andra. Vi testade vår hypotes, att intrasexuell tävlan kan bidra till negativa attityder mot invandrare, genom ett online experiment där deltagarna fick se bilder av maskuliniserade/feminiserade individer från olika bakgrund. Vi bad deltagarna att ta ställning till ifall personen på bilden borde beviljas uppehållstillstånd eller inte, samt hur villiga de skulle vara att hjälpa personen integreras i samhället. Vi inkluderade även en skala för att mäta partnervärde. Vi fann att både män och kvinnor var mera negativa mot manliga invandrare. Som förväntat hade individer med relativt lågt partnervärde negativare attityder mot invandrare. En uppföljningsstudie visade att vår manipulation av maskulinitet/femininitet var effektiv för kvinnor men inte för män. Vi kan därför inte utesluta att attraktiva manliga invandrare skulle väcka mera negativa attityder bland lokala män. Sammanfattningsvis fann vi preliminärt stöd för att intrasexuell tävlan bidrar till att förklara invandrarfientliga attityder.</p>	
Nyckelord: rasism, invandring, evolution, partnervärde, intrasexuell tävlan	
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The Effect of Intra-Sexual Competition on Anti-Immigrant Attitudes

As migration continues to grow, with a 40 percent worldwide increase since year 2000 (United Nations, 2016), understanding relations between local and immigrating populations is becoming increasingly important. Despite ideals about multiculturalism and acceptance, discrimination and negative attitudes towards immigrants and immigration remain widespread (e.g., Öblom & Antfolk, 2017). According to various studies, direct and open expression of negative attitudes is declining (Dovidio & Gaertner, 2000; Jaakkola, 2009; Molina, Tropp & Goode, 2016). On the other hand, covert prejudice is assumed to have remained relatively constant (Akrami, Ekehammar, & Araya, 2000), meaning that anti-immigrant sentiment may simply have taken more subtle forms of expressions (Dovidio & Gaertner, 2004; Dovidio & Gaertner 2000; Molina, Tropp & Goode 2016; Pettigrew & Meertens, 1995). Even if a person is unaware of his or her negative attitudes, these attitudes can still affect behavior (Saucier et al., 2005). The consequences of anti-immigrant attitudes can range from subtle forms of discrimination to outright violence, and can be very costly for the well-being of immigrants and generate societal costs (Pascoe & Richman, 2009).

Sources of Anti-Immigrant Attitudes

A feature of human social psychology is to categorize other individuals into “us” or “them”. This subjective classification into so called in-groups and out-groups has long been seen as a pivotal aspect of the development of negative attitudes towards members of other groups than one’s own (Allport, 1954). Humans appear to exhibit social favoritism and prefer members of their in-group over members of an out-group (e.g., Perdue, Dovidio, Gurtman, & Tyler, 1990). In-group preference does not necessarily mean out-group derogation, but, under certain circumstances, derogation of out-groups can result from this social bias, for example when the out-group is perceived to pose some kind of threat (Molina, Tropp & Goode, 2016). There are some different theories that aim to further explain the in-group out-group division.

Integrated threat theory (Stephan & Stephan, 2000) aims to explain negative attitudes towards out-group members and includes four types of threats: realistic threats, symbolic threats, intergroup anxiety and negative stereotyping. Realistic threats include any perceived threat to the welfare of the in-group (e.g., economical, material or political),

whereas symbolic threats include threats to the social identity of the in-group (Stephan & Stephan, 2000). Intergroup anxiety is experienced in interactions with a member from another group and results from personal concerns of being embarrassed, taken advantage of, or rejected (Stephan & Stephan, 1985). Negative stereotypes, on the other hand, create anticipations of negative interactions and increase intergroup anxiety. Several studies (Corenblum & Stephan, 2001; Stephan, Renfro, Esses, Stephan, & Martin, 2005; Stephan, Ybarra, Martínez, Schwarzwald, & Tur-Kaspa, 1998) have shown that perceived threats posed by immigrant groups increase prejudice. When feeling threatened, perceptions of competition may occur. For example, beliefs that the more one group gains from an interaction, the more the other group will lose is a predictor of anti-immigrant attitudes (Esses, Dovidio, Jackson, & Armstrong, 2001; Esses, Jackson, & Armstrong, 1998).

Importantly, individual differences in ideological attitudes are associated with immigrant attitudes as well. High levels of social dominance orientation consistently predict immigrant attitudes according to a cross-national meta-analysis (Cohrs et al., 2010). Social dominance orientation reflects belief in and preference for social hierarchy and is also negatively correlated with tolerance and altruism (Craig & Richeson, 2014; Pratto, Sidanius, Stallworth, and Malle, 1994). Rustenbach (2010) showed that individuals who have a higher education, higher income, higher levels of interpersonal trust, and a political affiliation report less anti-immigrant attitudes. Mayda (2006) found that national pride, low education, male gender, security worries and worries concerning national and cultural identity correlated positively with anti-immigrant attitudes.

In sum, although several factors contribute to negative attitudes towards immigrants, one important predictor of anti-immigrant attitudes is the perceived (real or imagined) threats posed by immigrant groups to one's own social status.

Intra-Sexual Competition and Anti-Immigrant Attitudes

When two or more members of the same sex compete for the same reproductively relevant resources, intra-sexual competition occurs (Darwin, 1871). Males compete against other males in the search for desirable females, whereas females compete against other females in the search for desirable males (Cox & Fisher, 2008; Darwin, 1871). Because male's minimum required parental investment is lower than that of females (Clutton-Brock et al., 2006; Trivers, 1972), females are choosier than males in the

selection of mates. This means that males with lower mate value are at risk of ending up with no partner at all, increasing the male-male competition for female partners. On the other hand, most females have access to their desired number (but not necessarily the desired quality) of partners (Rosvall, 2011; Sugiyama, 2005), making female-female competition less intense. Indeed, whereas male-male competition is well documented, female-female competition is documented to a lesser extent, but studies indicate that females engage in intra-sexual competition as well (Buss, 1988; Fink, Klappauf, Brewer, & Shackelford, 2014; Sugiyama, 2005; Vaillancourt & Sharma, 2011; Walters & Crawford, 1994).

In the current study, we present and test the hypothesis that intra-sexual competition contributes to anti-immigrant attitudes. This hypothesis is based on the premise that immigration can influence the individually perceived access to desired mates, by both changing the sex-ratio (i.e., the relative number of females and males in a given mating pool) and attractiveness of a given individual relative to that of others. If, for example, more males than females enter into the local mating pool, and increased number of men will compete for females, and this will decrease each individual male's chances of finding a desirable female partner. Also, if the immigrants are considered to be relatively attractive, it decreases the relative attractiveness of local individuals. For example, if immigrating males are perceived as highly attractive to the local females, immigration will incur a disadvantage to local males. Another way intra-sexual competition could increase is if norms (in the old or new cultural context) regulate mating behavior differently for immigrating males and females. If, for example, immigrant males are seen as sexually available and potent and immigrant women as chaste and lacking sexual freedom, local males might experience such a situation as increasing intra-sexual competition. Although the male-to-female ratio is maintained in the population, sexual access to females would remain low. Additionally, highly attractive males tend to adopt so-called short-term sexual strategies, characterized by short, frequent sexual relationships, whereas females of high mate value tend to adopt long term strategies by being relatively choosy in the selection of male partners (Gangestad & Simpson, Jefferey, 2000; Landolt, Lalumière, & Quinsey, 1995; Schmitt, 2005). This means, that even when equal numbers of males and females enter into the local mating pool, the influx of

attractive males can affect male intra-sexual competition differently from how the influx of attractive females affect female intra-sexual competition.

To conclude, intra-sexual competition is in many cases likely to increase when immigrants are welcomed to a country. An individual's attitudes towards immigrants could consequently be explained by how much the immigrant in question weakens or strengthens the local individuals' relative chances of finding a desirable partner.

Gender Differences in Anti-Immigrant Attitudes

In line with the expectation that male intra-sexual competition is more frequent and overt, several studies show that males display more negative attitudes compared to females (Ekehammar, Akrami, & Araya, 2003; Hoxter & Lester, 1994; Moore, Hauck & Denne, 1984; Qualls, Cox & Schehr, 1992; Mayda, 2006). This also holds for covert forms of prejudice (Akrami et al., 2000), whereas some evidence suggests that females may express higher levels of implicit prejudice (Ekehammar et al., 2003). Also in Finland, males tend to be more negative towards immigrants, and the gender difference is particularly apparent among younger individuals (Jaakkola, 2009), and especially immigrant men are discriminated against (Öblom & Antfolk, 2017).

Interestingly, also less direct evidence supports the notion of intra-sexual competition being part of males's anti-immigrant attitudes. The immigration debate in media is highly sexualized (Yardley, 2016) and several anti-immigrant vigilant groups, such as Soldiers of Odin in Finland, state as their aim the protection women and children from immigrant males (Rosendahl & Forsell, 2016). Throughout history interracial romantic relationships, especially between an outgroup male and an ingroup female (Hodes, 1997), have provoked reactions and continue to do so even in modern society (Glaser, Dixit, & Green, 2002).

The Role of Mate Value

Traits that affect the individual mate value (i.e., the general appeal and attractiveness of an individual as a potential partner) include physical attractiveness, resource acquisition, youth, ambition, status, health, friendliness, intelligence, social popularity and many other traits (Buss, 1989; Edlund & Sagarin, 2014). Because there is variation in these traits, there is also individual variation in mate value (Antfolk & Sjölund, 2018; Brase & Guy, 2003; Fisher, Cox, Bennett, & Gavric, 2008). Although

many of the qualities preferred in mates are the same for both males and females, like intelligence and kindness (Lippa, 2007), there are also substantial sex differences. Females generally have a relatively strong preference for status, ambition, and generosity, which signal capacity and willingness to invest in offspring, whereas males tend to place a relatively high value on physical attractiveness (Barber, 1995; Buss, 1989; Scheib, Gangestad, & Thornhill, 1999; Sugiyama, 2005).

Both females and males place value in physical attractiveness, but also in this case there are some clear sex differences. Males are generally drawn to feminine, delicate facial features, lower waist to hip ratio and youth, whereas females often tend to prefer more masculine faces with a marked jawline and prominent brow ridges and cheekbones (Rhodes, 2006). Bird and colleagues (2016) asked men to rate feminized and masculinized photos of female faces and showed that participants preferred feminized female faces. Johnston and colleagues (2001) tested the preferences of women using manipulated faces that ranged from extremely masculinized to extremely feminized. The results indicated that females prefer slightly masculinized faces. Researchers have also found that females report more jealousy in response to imagined flirting from feminized females than masculinized females (O'Connor & Feinberg, 2012), thus perceiving the threat to one's mating opportunities differently based on the attractiveness of the female. This suggests that females are expected to perceive feminine (vs. masculine) women as bigger a threat on the mating market. Males would, on the other hand, perceive masculine (vs. feminine) men as a bigger threat. However, Perrett and colleagues (1998) demonstrated a female preference for more feminine male facial features. This could be a result of women's attempts to solve the tradeoff between the benefits (i.e., healthy offspring) and the costs (i.e., low investment in offspring) of mating with masculine males (DeBruine, Jones, Crawford, Welling, & Little, 2010; Gangestad, Garver-Apgar, Simpson, & Cousins, 2007).

The Current Study and Hypothesis

The hypothesis tested in the current study is that increased intra-sexual competition (i.e., a decrease in the perceived value an individual has on the mating market) contributes, at least partly, to the variation in negative attitudes towards immigrants. We chose to test our hypothesis by conducting an online experiment. In line

with the aforementioned theory and findings, we expected men with lower (vs. higher) mate value would display more anti-immigrant attitudes, and attractive/masculine male immigrants would increase male intra-sexual competition more than unattractive/feminine male (or female) immigrants would, and thus worsen the local males' perceived situation on the mating market. Consequently, local males would display more negative attitudes towards attractive/masculine immigrants. Conversely, females with lower (vs. higher) mate value would also display more anti-immigrant attitudes, and attractive/feminine female immigrants would increase female intra-sexual competition and hence elicit more negative attitudes among local females. Based on this assumption we made a few more specific predictions.

- i) Men and women with relatively low mate value will be more negative towards immigrants of the same sex compared to men and women with a relatively high mate value. This expectation is derived from the notion that low mate value individuals will perceive immigrants as relatively more threatening to their own situation on the mating market.
- ii) Men will have more negative attitudes to immigrants than women. This expectation is derived from the fact that male intra-sexual competition is higher than female intra-sexual competition.
- iii) Men will be more positive towards female immigrants than towards male immigrants, whereas women will be more positive towards male immigrants than female immigrants. This hypothesis is derived from the fact that intra-sexual competition would increase if more members of the same sex were accepted into a country.
- iv) Immigrants that are perceived as more attractive and masculine/feminine will elicit the most negative reactions by members of their own sex. For immigrants of the opposite sex the effect will be the opposite.

Main Study

Methods

Ethical permission

The current study received permission by the Faculty of Arts, Psychology and Theology at Åbo Akademi University, and by the Ethical Review Board of Åbo Akademi University.

Participants

The participants were recruited through mailing lists of universities and vocational schools of Finland, through the mailing list of city/municipality employees, and through social media. After excluding any incomplete answers (i.e., participants who had not provided responses to the items measuring mate value in the end of the survey), the final sample consisted of 533 participants. Out of all the participants, 374 were women and 158 were men. One did not identify as either female or male. The age of the participants ranged from 16 to 60 with the mean age being 34.73 ($SD = 12.80$). There was a statistically significant difference in age between male and female participants, $t = 2.49$, $p < .05$, with men ($M = 36.85$) being older than women ($M = 33.84$).

Measures

Anti-immigrant attitudes. Participants were presented with pictures of males and females of different ethnic origins. The pictures were presented together with a short description of why the depicted individual seeks asylum in Finland (see Appendix A). To measure immigrant attitudes, we included the five following questions: "In your opinion, should the person be granted asylum in Finland?", "How willing would you be to help him/her find an apartment?", "How willing would you be to help him/her establish a social network?", "How willing would you be to ask him/her to spend time with you and your friends?", and "How willing would you be to invite him/her to your house?". Responses were given on a scale from 1 ("Absolutely not") to 9 ("Yes, absolutely"). We combined these five items into one measure by calculating the individual mean for participant and each picture. This measure had adequate internal reliability ($\alpha = .94$). See Table 1 for means, SD and range for each item.

Table 1

Means, Standard Deviation, and Range for Items Measuring Immigrant Attitudes

Item	<i>M</i>	<i>SD</i>	Range	
Asylum	6.37	2.39	1	9
Apartment	5.52	2.35	1	9
Social	5.65	2.29	1	9
Hang Out	5.45	2.33	1	9
Home	5.22	2.39	1	9

Mate value. To measure mate value, we used the mate value scale (Edlund & Sagarin, 2014), which is a self-report scale consisting of four questions regarding self-perceived desirability as a partner (e.g., “Overall, how do you believe you compare to other people in desirability as a partner on the following scale?”). Responses were given on a scale from 1 (extremely undesirable) to 7 (extremely desirable). The mate value scale shows adequate validity and reliability (Edlund & Sagarin, 2014; Gillen, Collisson, Murtagh, Browne, & Mccutcheon, 2016). We combined the four items into one measure by calculating the individual mean. This measure had adequate internal reliability ($\alpha = .88$).

Materials

In total, the stimulus material consisted of 16 pictures. These pictures included two versions of four different males and two versions of four different females. To create the two versions of the same face, one version where masculine features had been amplified and one version where feminine features had been amplified, images of each individual were manipulated using the software PsychoMorph (Tiddeman et al. 2001). The software allows for manipulation of only one selected set of cues. Faces differed only in sexual dimorphism, and all other characteristics (e.g., skin texture) were held constant. The photographs were manipulated to be either 100% more similar to average male face or 100% more similar to average female face. Depicted individuals originated from four different areas: Central America (Mexico), South East Asia (Vietnam), the Middle East (Iraq), and West Africa (Nigeria and Cameroon). The individuals in the pictures were between 22 and 27 years of age. This is an age where individuals in the studied population tend to be seen as relatively attractive and sexually active in the studied population

(Antfolk et al., 2015, Antfolk, 2017). The target individuals were depicted as neutrally as possible (minimal make-up, no jewelry or hats etc.).

Participants were only exposed to half of the picture set to avoid obvious problems with seeing two different versions of the same face. Each picture was paired with a background description. Descriptions were written so that they could be paired with any of the pictures, regardless of gender or origin. We included eight descriptions in total (See Appendix). The combination of pictures and descriptions were counterbalanced, by creating eight survey versions, so that each description was combined with every picture once.

Procedure

The online experiment was created using the Survey Analytics platform. Data was collected during three weeks in October-November 2017. Participants were asked to take part in a survey concerning immigrant attitudes. There was no deception concerning the subject of the current study. We did, however, not disclose our specific hypothesis concerning the association between intra-sexual competition and immigrant attitudes. Participants were insured anonymity and informed that participation was voluntary and could be discontinued at any time. Participants read and agreed to a standard informed consent form before starting.

After asking participants to provide background information (e.g., sex and age), participants were shown the same number of pictures, four males and four females, each paired with a background description. To avoid order effects, the order in which images appeared was completely randomized. If the image shown was the masculine version or the feminine version of an image was also fully randomized. The participants were asked to read each description and thereafter respond to each of the items measuring anti-immigrant attitudes. After responding to the descriptions, respondents were asked to complete the mate value scale, as well as the Personal Relative Deprivation Scale (Callan, Ellard, Shead & Hodgins, 2008) and the Ten Item Personality inventory (Gosling, Rentfrow & Swann, 2003) which were included as fillers to keep the hypothesis of the study less apparent. Responses to the latter scales are not reported here. The final question was a control question with nine alternatives that asked the participants to guess the aim of the study.

Data Analysis

To consider the within-participant clustering of responses, data was modeled as a linear multi-level model with random intercepts for each participant. The association between mate value and anti-immigrant attitudes was interpreted as a linear regression, whereas the associations between respondent gender, stimulus gender, and stimulus masculinization was interpreted as an ANOVA-type model. For modelling the data, we used the lme4-package (Bates, Maechler, Bolker, & Walker, 2015) for *R* (R Core Team, 2008). To compare means, we used the lsmeans-package (Lenth, 2016), and to compute p-values, we used the lmerTest-package (Kuznetsova, Brockhoff, & Christensen, 2016). Anonymized data, analysis scripts, and additional results are available Open Science Framework (osf.io/y92ez).

Results

Descriptive Results

We first inspected participant characteristics. The majority of participants were heterosexual, currently in some form of relationship, and had a degree from a polytechnic school or a university (Table 2). Eighteen participants had a different home country than Finland.

Table 2

Participant Demographics

	Female		Male		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Sexual Orientation						
Heterosexual	338	90.4	151	95.6	499	93.6
Homosexual	3	0.08	3	1.90	6	1.10
Bisexual	27	7.2	3	1.9	30	5.6
Other	6	1.6	1	0.6	7	1.3
Relationship Status						
Single	84	22.5	54	34.2	138	25.9
Dating	56	15.0	13	8.2	69	12.9
Cohabiting	87	23.3	34	21.5	121	22.7

	Married	135	36.1	52	32.9	187	35.1
	Other	12	3.2	5	3.2	17	3.2
Education							
	Compulsory	4	1.1	8	5.1	12	2.3
	Vocational	60	11.3	38	24.1	98	18.4
	Gymnasium	41	11.0	16	10.1	57	10.7
	Polytechnic	96	25.7	37	23.4	133	25.0
	University	157	42.0	57	36.1	214	40.2
	Other	60	16.0	38	24.1	98	18.4

We also found that respondent age was related to immigrant attitudes, $B = -0.02$, $SE = 0.01$, $t = -3.18$, $p < .01$. We thus included age as a co-variate in subsequent analyses.

Mate Value and Anti-Immigrant Attitudes

We then tested our first prediction that individuals with lower mate value would hold more anti-immigrant attitudes. As expected, we found a statistically significant association between mate value and immigrant attitudes, $B = 0.32$, $SE = 0.08$, $t = 4.09$, $p < .001$. Follow-up analyses revealed that this was true both for women, $B = 0.34$, $SE = 0.09$, $t = 3.78$, $p < .001$ and men, $B = 0.28$, $SE = 0.14$, $t = 2.00$, $p < .05$.

The Roles of Respondent Sex, Stimulus Sex, and Masculinization

After this, we tested the remaining hypotheses with a linear multi-level model, with the respondent gender, stimulus gender, and stimulus masculinization, and their interaction terms as predictors, and immigrant attitudes as the outcome variable. Age was again entered as a co-variate in the model. With respect to the second hypothesis that men will hold more anti-immigrant attitudes than women, we found a main effect of respondent gender, $F [1] = 29.01$, $p < .001$. As expected, men held more negative anti-immigrant attitudes ($M = 4.98$, $SE = 0.15$) than women ($M = 5.94$, $SE = 0.15$).

Concerning our third prediction, where we expected an interaction between respondent gender and stimulus gender, such that men would hold more negative attitudes to male immigrants than female immigrants and women hold more negative attitudes to female than male immigrants, we also found a statistically significant interaction, $F [1] = 4.86$, $p < .05$. As expected, men held more negative attitudes being reported for male ($M = 5.14$, $SE = 0.15$) than female ($M = 4.81$, $SE = 0.15$, $t = 7.06$, $p < .001$). Contrary to our

expectation, women held more negative attitudes towards male ($M = 6.17$, $SE = 0.10$) than female ($M = 5.71$, $SE = 0.10$, $t = 14.72$, $p < .001$).

With respect to our fourth hypothesis, that the masculinization of faces would further moderate the two-way interaction so that men would display the most negative attitudes towards masculine males and females display the most negative attitudes towards feminine faces, we did not find a statistically significant interaction, $F [1] = 1.72$, $p = 0.19$. A closer examination showed that there was no difference between attitudes for feminized females ($M = 6.18$, $SE = 0.10$) and masculinized females ($M = 6.16$, $SE = 0.10$, $t = 0.44$, $p = .97$) for women, and no difference between attitudes for feminized males ($M = 4.86$, $SE = 0.16$) and masculinized males ($M = 4.76$, $SE = 0.10$, $t = 1.52$, $p = .42$) for men.

Discussion

We found support for two of our hypotheses and partial support for our third hypothesis. A decrease in mate value was associated with an increase in anti-immigrant attitudes both for men and women. Men displayed more anti-immigrant attitudes than women, and men (but not women) displayed more negative attitudes towards immigrant members of their own sex. We did not find any evidence that anti-immigrant attitudes were affected by the masculinization of the male and female targets. To test whether this could be due to a failure to successfully manipulate the attractiveness of the faces, we conducted a second study.

Attractiveness Ratings

Method

Participants

We recruited 135 (101 female and 34 male) participants for this study. The average age was 23.86 years of age ($SD = 4.01$). There was no statistically significant difference in age between female and male participants, $M = 26.68$, $M = 24.38$, $t = -0.81$, $p = 0.41$).

Measures

Each participant was asked to report how attractive they found the person on the images and how attractive they thought that others would find the person on the image. Both the question “In your opinion, how attractive is the person on the above image?” and the question “How do you think others would evaluate this person?” were answered on a response scale from 0 “not at all attractive” to 10 “very attractive”.

Procedure

We created two surveys. Each survey included one image (feminine or masculine) version of one of the eight stimulus individuals. We did not include both feminine and masculine versions of the same individual in order to avoid contrast effects that could be the result of evaluating both versions. Each survey included images of four male and four female stimulus individuals. Four images were masculinized and four images were feminized. Masculinization was counterbalanced across the two surveys.

Data Analysis

To test whether participants found masculinized males more attractive than feminized males, and feminized females more attractive than masculinized males, we modelled data as a linear-mixed model in the lme4-package (Bates et al., 2015) in R (R Core Team, 2008) with random intercepts for each participant. Two models, one for own ratings and one for others ratings, were created. To compare means, we used the lsmeans-package (Lenth, 2016), and to compute p-values, we used the lmerTest-package (Kuznetsova et al., 2016). Anonymized data, analysis scripts, and additional results are available Open Science Framework (osf.io/y92ez).

Results

The correlation between own and other ratings was $r = .70$, $n = 927$, $p < .001$. After this, we tested the effect of masculinization on male and female images. We did not find any statistically significant interaction between stimulus gender and stimulus masculinization for own or other ratings, $F(1) = 3.26$, $p = .07$ and $F(1) = 1.77$, $p = .18$. For both types of ratings, there was a statistically significant main effect of both stimulus gender, $F(1) = 60.25$, $p < .001$ for own and $F(1) = 5.10$, $p < .05$ for others, and stimulus masculinization, $F(1) = 6.05$, $p < .05$ for own and $F(1) = 8.68$, $p < .01$ for others.

Table 3
Means and Standard Error for Attractiveness Ratings

	<u>Own</u>		<u>Other</u>	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Feminized Females	6.30	0.15	6.79	0.14
Masculinized Females	5.87	0.15	6.30	0.14
Feminized Males	5.32	0.15	6.38	0.14
Masculinized Males	5.26	0.15	6.20	0.14

Note. Higher values indicate higher attractiveness on a scale from 0 to 10.

Although the means were in the expected direction for females, with feminized females being perceived as more attractive than masculinized females, $p < .01$ and $p < .01$ for own and other, respectively, the opposite was not true for males. Not only was the difference not statistically significant, $p = .64$ and $p = .25$, feminized males were perceived as more attractive than masculinized males.

We also tested the three-way interaction of respondent gender, stimulus gender, and stimulus masculinization. The three-way interaction was not statistically significant for either own, $F [1] = 1.54$, $p = .22$, or other ratings, $F [1] = 1.18$, $p = .27$.

Discussion

Here, we tested whether the manipulation of masculinity and femininity affected perceived attractiveness of the individuals used as stimulus material in the main study reported above. This was done in order to separate between two possible explanations to why we did not find an effect of stimulus masculinization on anti-immigrant attitudes: Either the perceived attractiveness of males and females does not affect attitudes concerning immigration, or the manipulation was unsuccessful in eliciting a reaction. In light of the results, it seems that masculinization of female faces was successful. For males, there was no effect of masculinization on attractiveness. This means that we could not successfully falsify the notion that the attractiveness of males affects immigrant attitudes.

General Discussion

The aim of the current study was to test the proposed association between anti-immigrant attitudes and intra-sexual competition. To do this, we conducted an online experiment in which participants evaluated background descriptions of immigrants. These descriptions were paired with images of females or males, that were either masculinized or feminized in an attempt to affect their attractiveness and thereby the potential effect on intra-sexual competition. Our predictions were derived from evolutionary argumentation regarding intra-sexual competition and mate value, as well as based on previous research results regarding anti-immigrant attitudes. We expected that individuals with relatively low mate value would show more negative attitudes towards immigrants of the same sex compared to high mate value individuals. We also expected that men would be more positive towards female immigrants while women would be more positive towards male immigrants. Finally, we predicted that attractive (masculine men and feminine women) immigrants will elicit more negative reactions from members of their own sex compared to unattractive immigrants.

Mate Value

Our results suggest that there is an association between self-reported mate value and anti-immigrant attitudes, both for men and women. The higher mate value a respondent reported, the more positive were his or her attitudes towards immigrants. The finding is in line with our hypothesis that lower mate value individuals perceive immigrants as bigger threats to their own situation by decreasing their chances of finding a partner. This finding is also in line with previous research on immigrant attitudes, which has shown that individuals who perceive immigrants as threatening to their own situation are more likely to have anti-immigrant attitudes (Stephan & Stephan, 2000). Another explanation for this association could involve self-esteem. Since self-perceived mate value tends to correlate with self-esteem (e.g., Goodwin et al., 2012). It is possible that anti-immigrant attitudes are partly explained by low self-esteem.

Sex Differences

We also compared male and female responses in regards to attitudes towards immigrants and our results were consistent with earlier research: Men reported more negative attitudes towards immigrants than women. In line with our hypothesis, men

exhibited more negative attitudes towards male immigrants compared to female immigrants. Contradictory to our predictions, also women reported more positive attitudes towards female immigrants. A possible explanation for this could be the negative portrayal of foreign men in the social narrative, which could cause women to be more suspicious towards male immigrants and possibly even view them as potential threats to their safety. Previous research has shown that out-group men are more likely to be perceived as threatening compared to women and in-group-men (Plant, Goplen, & Kunstman, 2011). Overall, men are seen as the more violent sex (Eagly & Steffen, 1986) and based on this one can assume that men are more likely to be associated with threats of criminal and aggressive nature. Moreover, at the time we collected our data, Finland had recently suffered its first terror attack. In this case the perpetrator was a male immigrant. The media attention on this, as well as reports of other crimes committed by male immigrants (Agerholm, 2017) could have had an effect on the opinions our respondents. Furthermore, a series of studies by Narravete, McDonald, Molina and Sidanius (2010) indicated that through evolutionary history, males and females have developed different strategies to cope with aggressive male out-group members. Out-group men (compared to out-group women) elicit a strong threat response in both sexes but for men the underlying motives are aggression and dominance while for women it is fear of sexual coercion. This is in line with current perceptions of immigrant men as sexually threatening (Agerholm, 2017; Sarrasin, Fasel, Green, & Helbling, 2015). Another explanation could be the general view of women as fragile, sensitive, and in need of protection. According to Sarrasin and colleagues (2015), perceptions of women as fragile are associated with more positive attitudes towards female than male immigrants. We also considered the possibility that women in the sampled population experience less increase in terms of intra-sexual competition because more men than women are currently immigrating to Finland (Statistics Finland, 2016).

Attractiveness

Concerning our last hypothesis, that attractive immigrants will elicit more negative attitudes from same sex individuals than unattractive immigrants, we did not find a significant interaction. We conducted a second online experiment to investigate if this could be a consequence of failure to manipulate facial attractiveness of the stimuli

individuals. Our results suggested that the manipulation worked for the female stimuli individuals but not for the male. Based on this, we cannot be sure if attractive male immigrants elicit more negative reactions among local men or not. However, since feminized females were in fact perceived as more attractive compared to masculinized females, we can assume that attractive female immigrants do not seem to elicit more negative reactions from local women compared to less attractive female immigrants.

Limitations and Future Directions

The results from the present study can only be interpreted in the light of the research context and considering some limitations. The study was conducted in Finland and the sample, although somewhat diverse, was not population based. This negatively influences the generalizability of the results. The high rate of female respondents as well as individuals with higher education, caused our sample to be somewhat skewed.

Based on former research concerning mate preferences it has remained equivocal whether women do in fact prefer masculine male facial traits (Bird et al., 2016; Morrison, Clark, Tiddeman, & Penton-Voak, 2010; Perrett et al. 1998). Moreover, studies have shown that when manipulating sexual dimorphism, as opposed to using unmanipulated masculine faces, feminine features tend to be preferred (Rhodes, 2006). In our second study we also failed to find an effect of facial masculinity on attractiveness. Our measure of attractiveness was therefore not optimal. It is possible that we would have seen different results if we manipulated other variables, for example facial symmetry, which is another predictor of attractiveness (Rhodes, Proffitt, Grady & Sumich, 1998).

Moreover, in various earlier mate preference studies the images used have been composite images. In our study we chose to photograph real people and only manipulate facial femininity/masculinity. We could have chosen to use composites available on the internet but we wanted to have control over ethnic background and age and most open access photos do not include this type of information. This means that our photos were not entirely neutral or standardized, however the ecological validity is most likely higher. All the images were photographed against a white background with similar lighting and the people photographed were instructed to look neutral (neutral facial expression, minimal make up, no jewelry etc.).

Another limitation is the respondent age span (16 to 60), which does not perfectly match the age of the stimulus individuals (22 to 27 years of age) in terms of intra-sexual competition. It has previously been demonstrated that women prefer men who are somewhat older than they themselves are, and that men display a preference for young women (although men are also interested in women of their own age; Antfolk, 2017). The target individuals were, however, all in their twenties, which might mean that the oldest participants might not necessarily think of the target as competing for the same individuals as them.

A suggestion for future research is to replicate the present study using a more representative sample. Since previous studies have showed that both education and gender correlate with immigrant attitudes (Mayda, 2006; Rustenbach, 2010), collecting more data from men, as well as people with lower education would be of importance. Another suggestion for prospective studies is to aim for a better manipulation of facial attractiveness and matching the age of the stimuli individuals and the respondents. Finally, in our study the context did not indicate mate selection (i.e., we only asked the participants to answer questions regarding immigration and did not ask them to rate the stimuli individuals as potential romantic partners). In future studies, a context containing cues of intra-sexual competition might be preferable.

Conclusions

Our study tested the novel hypothesis that the immigration-related increase in intra-sexual competition contribute to negative attitudes towards outgroup members. We found tentative support for this hypothesis, as individuals with lower mate value held more anti-immigration attitudes than individuals with higher mate value. Before any conclusions can be drawn, more stringent tests of the hypothesis are needed.

Svensk sammanfattning

Effekten av intra-sexuell tävlan på attityder mot invandrare

Introduktion

Sedan år 2000 har den globala invandringen ökat med ca 40 % enligt en rapport från Förenta Nationerna (2016). Som följd av den ökade invandringen blir det allt viktigare att förstå relationer mellan invandrade och icke invandrade grupper.

Forskare har inte något entydigt svar på hur negativa attityder mot invandrare uppkommer men det handlar sannolikt om ett samspel mellan ett flertal faktorer. Att kategorisera människor enligt grupptillhörighet verkar dock vara en allmänmänsklig tendens och forskning visar att vi är mera benägna att tycka om personer som vi upplever att hör till samma grupp som vi (ingrupp) jämfört med personer från andra grupper (utgrupp) (Allport, 1954; Perdue, Dovidio, Gurtman, & Tyler, 1990). Man har även kunnat påvisa att negativa attityder mot utgrupper ökar när vi upplever oss hotade. Hotet kan vara antingen realistiskt (t.ex. hot mot ekonomisk eller personlig säkerhet) eller symboliskt (hot mot social identitet, värderingar och kultur) (Stephan & Stephan, 2000).

Invandring och intrasexuell tävlan

Allt eftersom flera människor välkomnas till ett land så kommer lokalinvanarna att uppleva att konkurrensen om att hitta en lämplig partner ökar. Denna konkurrens kallas intrasexuell tävlan. Bland heterosexuella individer tävlar män sinsemellan om tillgång till kvinnor, medan kvinnor tävlar sinsemellan om tillgång till män (Cox & Fisher, 2008; Darwin, 1871). Båda könen påverkas av ökad intrasexuell tävlan, men på något olika sätt (Rosvall, 2011; Sugiyama, 2005). Eftersom manlig intrasexuell tävlan är mera intensiv (Sugiyama, 2005), kan vi anta att effekten av invandring på upplevd intra-sexuell tävlan kommer att vara starkare bland män jämfört med kvinnor.

Partnervärde

Alla människor har inte samma värde på "partnermarknaden", utan det finns vissa egenskaper som gör en individ mer eller mindre åtråvärd som partner, t.ex. vänlighet, intelligens, social status, ambition, och fysisk attraktivitet (Buss, 1989; Edlund & Sagarin, 2014; Sugiyama, 2005). Det finns omfattande forskning som tyder på att män föredrar

kvinnor med feminina ansiktsdrag (se t.ex. Bird et al., 2016). Gällande kvinnors preferenser är forskningen till viss del motstridig (Rhodes, 2006), det finns dock studier som tyder på att kvinnor föredrar män med ansiktsdrag mot det maskulina hållet (Johnston et al., 2001). På basen av dessa resultat kan man dra slutsatsen att ansiktsdrag påverkar det individuella partnervärdet och att feminina kvinnor och maskulina män kommer att uppfattas som mera attraktiva och därmed också som större hot på partnermarknaden. Vi kan således anta att attraktiva invandrare skulle väcka mera negativa reaktioner hos lokala individer av samma kön, eftersom attraktiva invandrare har en negativ inverkan på deras partnervärde och minskar deras chanser att hitta en lämplig partner.

Hypoteser

Syftet med den föreliggande studien var att vetenskapligt testa ifall en individs attityder mot invandrare delvis skulle kunna förklaras som en funktion av hur mycket invandraren i fråga försämrar individens värde på partnermarknaden. Med andra ord, finns det en association mellan intrasexuell tävlan och invandrarfientliga attityder? På basen av evolutionspsykologiska teorier samt tidigare nämnda forskningsresultat, formulerade vi fyra mera specifika hypoteser:

- i)* Män och kvinnor med lägre partnervärde kommer att ha mera negativa attityder mot invandrare jämfört med män och kvinnor med relativt högt partnervärde.
- ii)* Män kommer att ha mera negativa attityder mot invandrare än vad kvinnor har.
- iii)* Män kommer att ha positivare attityder mot invandrade kvinnor än mot invandrade män medan kvinnor kommer att ha positivare attityder mot invandrade män än mot invandrade kvinnor.
- iv)* Invandrare som ses som relativt attraktiva, dvs. maskulina män och feminina kvinnor, kommer att väcka mera negativa reaktioner från medlemmar av samma kön. För medlemmar av motsatt kön blir reaktionerna också motsatta.

Den huvudsakliga studien

Metod

Studien erhöll etiskt tillstånd vintern 2016 från den forskningsetiska nämnden vid fakulteten för humaniora, psykologi och teologi vid Åbo Akademi.

Deltagarna rekryterades huvudsakligen via e-post från universitet, yrkeshögskolor, andra stadiets yrkesskolor och kommuner runt om i Finland samt via diverse föreningar och social media. Efter att ha exkluderat alla ofullständiga svar bestod vårt sampel av 533 individer, av vilka 374 var kvinnor och 158 var män.

Vi skapade en online enkät bestående av 8 bilder av 4 män och 4 kvinnor från olika bakgrund (Mellanöstern, Sydamerika, Sydostasien och Västafrika). Varje bild presenterades tillsammans med en kort bakgrundshistoria och studiedeltagarnas uppgift var att ta ställning till (på en skala från 1 till 9) ifall individen på bilden borde beviljas uppehållstillstånd i Finland eller inte samt hur villig hen vore att på olika sätt hjälpa individen att integreras i samhället. I enkäten inkluderades även en skala för att mäta partnervärde (Edlund & Sagarin, 2014).

Enkäten bestod av totalt 16 bildstimuli. Vi skapade 2 versioner av varje bild, en version där feminina drag förstärkts och en version där maskulina drag förstärkts. Studien hade alltså en 4(härkomst) x 2(kön) x 2(maskulin eller feminin) design. Varje enskild respondent blev presenterad för endast hälften av bilderna för att undvika uppenbara problem med att se samma individ två gånger. Bakgrundshistorierna var 8 till antalet och skrivna på ett sådant sätt att varje historia kunde kombineras med varje bild, oberoende av kön och härkomst. Bilderna presenterades i randomiserad ordning för att undvika ordningseffekter. Enkäten skapades i Survey Analytics och data samlades in under oktober och november 2017.

Resultat

Angående vår första hypotes, att individer med lägre partnervärde kommer att ha mera negativa attityder mot invandrare, fann vi som väntat en signifikant korrelation, $B = 0.32$, $SE = 0.08$, $t = 4.09$, $p < .001$. Denna effekt fanns hos både män och kvinnor.

Vi testade sedan vår andra hypotes, att män kommer att ha mera negativa attityder mot invandrare än kvinnor, och fann en huvudeffekt av kön $F [1] = 29.01$, $p < .001$. Män hade som förväntat mera negativa attityder ($M = 4.98$, $SE = 0.15$) än kvinnor ($M = 5.94$, $SE = 0.15$).

Beträffande vår tredje hypotes så fann vi i enlighet med vår prediktion att manliga respondenter hade mera negativa attityder gentemot manliga ($M = 5.14$, $SE = 0.15$)

jämfört med kvinnliga ($M = 4.81$, $SE = 0.15$, $t = 7.06$, $p < .001$) invandrare. Tvärtemot våra förväntningar fann vi att även kvinnor var mera negativa mot manliga invandrare ($M = 6.17$, $SE = 0.10$) än kvinnliga invandrare ($M = 5.71$, $SE = 0.10$, $t = 14.72$, $p < .001$).

Vi förväntade oss även att män skulle vara mest negativa mot maskuliniserade invandarmän samt att kvinnor skulle vara mest negativa mot feminiserade invandrarkvinnor. Angående denna hypotes fann vi ingen signifikant interaktion för varken män eller kvinnor $F [1] = 1.72$, $p = 0.19$. För att ta reda på ifall detta resultat kunde bero på att vi inte lyckats manipulera attraktivitet så genomförde vi ytterligare ett online experiment.

Bedömning av attraktivitet

Metod

Till vår uppföljande studie rekryterades 135 deltagare av vilka 101 var kvinnor och 34 män. Medelåldern var 23.86 år ($SD = 4.01$). Vi skapade två enkäter och var och en av dessa bestod av antingen den maskuliniserade eller den feminiserade versionen av de 8 stimulusindividerna från vår huvudstudie. I var och en av enkäterna inkluderades 4 män och 4 kvinnor. Varje deltagare ombads bedöma (på en skala från 0 till 10) hur attraktiva de tyckte att personen på bilden var samt hur de tror att andra skulle bedöma personen på bilden.

Resultat

Vi testade effekten av maskulinisering av ansiktsdrag på manliga och kvinnliga individer. Vi fann ingen statistiskt signifikant interaktion mellan stimulusindividens kön och maskulinisering för de två bedömningarna av attraktivitet (egen och andras), $F(1) = 3.26$, $p = .07$ och $F(1) = 1.77$, $p = .18$. Däremot fann vi en signifikant huvudeffekt av både stimulusindividens kön och maskulinisering. Effekten gick i förväntad riktning för kvinnor, dvs. feminiserade kvinnor bedömdes som attraktivare än maskuliniserade kvinnor. För män fanns ingen signifikant effekt.

Diskussion

Syftet med den föreliggande studien var att undersöka ifall tävlan om tillgång till sexuella eller romantiska partners bidrar till invandrarfientliga attityder. Våra hypoteser var att män kommer att rapportera mera invandrarfientliga attityder än kvinnor, att både män och kvinnor kommer att vara mera fientliga mot invandrare av samma kön som en själv, att respondenter med relativt lågt partnervärde kommer att uppvisa negativare attityder än de med relativt högt partnervärde och slutligen att män och kvinnor kommer att vara mera negativa mot attraktiva invandrare av samma kön som de själva.

Som förväntat, och i linje med tidigare forskning, var männen i vår studie mera negativa mot invandrare än vad kvinnorna var. Också i enlighet med våra prediktioner hade män positivare attityder mot kvinnliga invandrare jämfört med manliga invandrare. Däremot uppvisade även kvinnliga respondenter positivare attityder mot invandrarkvinnor. En potentiell förklaring till detta kunde vara hur utländska män framställs i media. Manliga invandrare beskrivs relativt ofta som potentiellt våldsamma eller som sexuella hot mot kvinnor (Agerholm, 2017). Forskning tyder även på att män från s.k. utgrupper oftare än kvinnor och män från s.k. ingrupper uppfattas som farliga (Plant, Goplen & Kunstman, 2011). En annan tänkbar förklaring skulle kunna vara samhällets syn på kvinnor som ömtåliga och i behov av beskydd. En sådan kvinnosyn kan enligt forskning vara kopplad till positiva attityder mot invandrarkvinnor (Sarrasin et al., 2016). Vi övervägde även en tredje potentiell förklaring; enligt statistikcentralen i Finland har Finland tagit emot flera invandarmän än invandrarkvinnor. Detta kunde eventuellt betyda att invandringen inte påverkat intrasexuell tävlan för kvinnor, eftersom tillgången till män de facto ökat medan tillgången till kvinnor minskat.

Enligt våra analyser fanns det en signifikant interaktion mellan partnervärde och invandrarattityder. Interaktionen var i enlighet med vår hypotes att individer med lägre partnervärde känner sig mera hotade eftersom flera invandrare betyder ytterligare försämrade möjligheter på partnermarknaden.

Vi fann inte någon effekt av attraktivitet på invandrarattityder. Därför gjorde vi en uppföljningsstudie för att utesluta en av två möjliga förklaringar: att vi misslyckats med att manipulera attraktivitet eller att attraktivitet inte inverkar på invandrarattityder. Vi

kunde konstatera att manipuleringen haft förväntad effekt för kvinnor men inte för män. Vi kunde därmed inte utesluta att attraktiva manliga invandrare väcker mera negativa attityder hos lokala män än mindre attraktiva manliga invandrare.

Våra resultat kan endast tolkas i ljuset av forskningskontexten. Studien utfördes i Finland och vårt sampel var inte representativt för hela populationen. På grund av detta är möjligheterna till generalisering av resultaten begränsade.

En brist i vår studie var den ojämna könsfördelningen (70 procent var kvinnor). Även högutbildade individer var överrepresenterade i vårt sampel. Eftersom tidigare studier (Rustenbach, 2010; Mayda, 2006) påvisat ett positivt samband mellan både kön och utbildning och invandrarattityder så kan denna begränsning ha påverkat våra resultat. På grund av att vi förväntat oss starkare effekter bland män jämfört med kvinnor hade vi önskat flera manliga respondenter.

En annan brist i studien var manipulationen av femininitet/maskulinitet, eftersom forskning beträffande kvinnors preferens för maskulina ansiktsdrag är motstridig (se t.ex. Morrison, Clark, Tiddeman, & Penton-Voak, 2010). På grund av detta var vår manipulation av attraktivitet inte optimal.

Förslag till framtida forskning är att replikera studien med strävan till jämnare könsfördelning samt bättre manipulation av attraktivitet.

Slutsatser

Vi genomförde en experimentell studie och fann partiellt stöd för att intrasexuell tävlan bidrar till uppkomsten av negativa attityder mot invandrare. För att bekräfta resultaten krävs ytterligare forskning.

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Appendix A

Background descriptions (in Swedish) that were paired with a picture in the online experiment

1. Individens nedan tog sig till Finland eftersom det i hemnationen fanns mycket få arbetsmöjligheter. Lönerna i landet är för låga och konkurrensen mycket hård. Efter att individen blivit klar med sina studier och tagit sin examen bestämde sig individen för att flytta utomlands för att öka sina chanser till ett bättre liv. Individen kom till Finland och har ansökt om uppehållstillstånd för att kunna börja söka jobb här.
2. Individen nedan är 24 år och hör till en grupp människor som i sitt hemland blivit förföljda pga. sin etnicitet. Man har t.ex. fängslat flera individer utan tillräcklig juridisk behandling. Man bedömer att risken för väpnad konflikt mellan nationens olika etniska grupper ständigt ökar. På grund av att förföljelserna tilltagit under senare tid så valde individen att lämna sin hemnation och flytta till Finland. Individen har kommit ensam till Finland och hoppas beviljas uppehållstillstånd.
3. Individen på bilden är 22 år gammal och vill få uppehållstillstånd i Finland för att kunna studera. I hemnationen är högskoleutbildning dyr och möjligheten att studera är få förunnat. För att bli accepterad till en högskola krävs inte bara bra betyg och pengar utan även att man kommer från rätt slags familj. Individen har flera bekanta som flyttat utomlands för att skaffa sig en utbildning och valde därför att göra det samma.
4. Individen nedan tillhör en religiös minoritet som fått utstå förföljelser i hemlandet. Medlemmar av denna religiösa minoritet har utsatts för hot och skadegörelse av vissa, radikala medlemmar av majoritetsreligionen. Individen hade läst på internet att Finland är ett av världens säkraste länder och att här råder religionsfrihet och när förföljelserna endast verkade öka bestämde sig individen för att flytta hit och ansöka om uppehållstillstånd.
5. På grund av den ekonomiska osäkerheten och fattigdomen i hemnationen bestämde sig individen nedan för att öka sina chanser till ett bättre liv och flytta till Finland. Individen är 23 år och kom ensam till Finland efter att ha arbetat för minimilön i flera år. Individen hoppas på att få uppehållstillstånd, hitta ett bättre jobb och kunna sända hem pengar till sina föräldrar som ännu bor kvar i hemlandet.
6. Individen på bilden är 25 år gammal och bodde i ett land där politiska konflikter redan länge varit en del av vardagen. Klasskillnaderna i landet är stora och på senaste tiden har situationen blivit allt mera ostabil med protester och ökande våldsamheter mellan de olika politiska grupperna. Tillsammans med några bekanta tog individen flyget till central Europa och därifrån vidare till Finland. Nu väntar individen på besked om uppehållstillstånd.

7. Individen nedan levde i ett land där hotet om krig kom allt närmare. Nästan dagligen protesterar folk på gatorna och militären i landet har tagit till allt mer drastiska metoder för att tysta protesterna. Nyheterna varnar för att krig är nära att bryta ut och det har gjorts att många medborgare valt att lämna landet. Individen på bilden har nyligen kommit till Finland och önskar nu att få uppehållstillstånd här för att kunna börja sitt liv på nytt.

8. Individen nedan kommer från en liten by där möjligheterna är väldigt få. Arbetslösheten är stor och fattigdomen verkar inte minska. Individen är 26 år gammal och har bestämt sig för att söka in till ett universitet utomlands för att skaffa sig en bra utbildning. Eftersom utbildning är så gott som gratis i Finland valde individen att komma hit och väntar på beslut om uppehållstillstånd.

PRESSMEDDELANDE

Effekten av intra-sexuell tävlan på attityder mot invandrare

Pro gradu avhandling i psykologi

Fakulteten för humaniora, psykologi och teologi, Åbo Akademi

En pro gradu avhandling vid Åbo Akademi har visat ett samband mellan negativa attityder mot invandrare och upplevelsen av tävlan om tillgången till potentiella partners.

Upplevelsen av s.k. intra-sexuell tävlan kan bli mera intensiv när invandring ökar menar forskarna vid Åbo Akademi. I studien frågade forskarna studiedeltagarna om deras attityder mot invandrare samt om hur de upplevde sina egenskaper som partner. Resultaten visade att personer med lägre partnervärde har mera negativa attityder mot invandrare. Forskarna fann även att män var mera negativa mot manliga invandrare än kvinnliga invandrare, vilket också stöder teorin. Studien fann således preliminärt stöd för hypotesen att intra-sexuell tävlan bidrar till negativa attityder mot invandrare, men för att bekräfta resultaten anser forskarna att ytterligare forskning behövs.

Studien utfördes i form av ett nätbaserat experiment och sammanlagt 374 av deltagarna var kvinnor och 158 var män. För att mäta attityder mot invandrare presenterades bilder av individer från olika bakgrund och deltagarnas uppgift var att ta ställning till ifall personen på bilden borde beviljas uppehållstillstånd i Finland eller inte och till vilken grad man kunde tänka sig hjälpa individen integreras i samhället.

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