

**How Do Finns' Demographic Perceptions Relate to Anti-Immigration Tendencies:
Exploring Assumptions About Immigrants in the Context of Intrasexual Competition**

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Master's Thesis in Psychology

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**ÅBO AKADEMI UNIVERSITY – FACULTY OF ARTS, PSYCHOLOGY AND
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| <p>Abstract: The ideas natives hold about immigrants are affected by complex psychosocial processes such as ingroup favoritism and outgroup homogeneity effect as well as media portrayals of immigrants. In this study, I suggest that natives' estimates of immigrants' demographic features and mechanisms of intrasexual competition should be considered to better understand individual differences in anti-immigration tendencies (i.e., negative attitudes and behaviors towards immigrants). Based on theories of intrasexual competition suggesting that men compete for reproductive partners more intensely than women, it can be assumed that particularly native men's perceived access to potential partners might be threatened by immigrating men with certain demographic features. I conducted an online survey study and analyzed data from native Finnish men ($N = 68$) using a two-way ANOVA. Data from native Finnish women ($N = 64$) was analyzed exploratively. The results showed that Finnish men's anti-immigration tendencies were not associated with their estimates of the age, number, or reason to migrate of the individuals immigrating to Finland. Instead, the Finnish men who estimated that most immigrants are men as well as the Finnish men who estimated that immigrants' most common geographic origin is the Middle East had more anti-immigration tendencies than other male respondents. A regression analysis did not show moderation by mate access or mate value on the results regarding demographic estimates. The results suggest that intrasexual competition can partially explain variation in Finnish men's anti-immigration tendencies. However, the results indicate that other explanatory factors – potentially perceived economic and cultural threat – are crucial as well.</p> | |
| Keywords: anti-immigration tendencies, immigration, intrasexual competition, demographics, mate access, mate value, evolutionary psychology | |
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| <p>Abstrakt: De inföddas föreställningar om invandrare påverkas av invecklade psykosociala fenomen som ingrupsfavoritism och utgruppshomogenitetseffekten samt hur medier porträtterar invandrare. I denna studie föreslår jag att infödda finländares uppskattningar av demografiska egenskaper hos invandrare och mekanismer för intrasexuell tävlan bör tas i beaktande för att bättre förstå individuella skillnader i anti-immigrationstendenser (dvs. negativa attityder och beteenden gentemot invandrare). Baserat på teorier om intrasexuell tävlan som tyder på att män konkurrerar om reproduktiva partner mer intensivt än kvinnor kan det antas att särskilt infödda finländska mäns upplevda tillgång till potentiella partner kan hotas av invandrande män med vissa demografiska egenskaper. Jag genomförde en onlineundersökning och analyserade data från infödda finska män ($N = 68$) med hjälp av en tvåvägs ANOVA. Data från infödda finska kvinnor ($N = 64$) analyserades explorativt. Resultaten från denna studie visade att finska mäns anti-immigrationstendenser inte var förknippade med deras uppskattningar av ålder, antal eller orsak till migration av de individer som invandrar till Finland. Istället hade de finska männen som uppskattade att de flesta invandrare är män, liksom de finska männen som uppskattade att invandrarnas vanligaste geografiska ursprungsområde är Mellanöstern mer anti-immigrationstendenser än andra manliga respondenter. En regressionsanalys av modererande effekter visade ingen moderering av partnertillgång eller partnervärde på resultaten gällande de demografiska uppskattningarna. Resultaten från denna studie tyder på att intrasexuell tävlan delvis kan förklara variationen i finska mäns anti-immigrationstendenser. Resultaten tyder dock även på att andra förklaringar – möjligen upplevt ekonomiskt och kulturellt hot – också är avgörande.</p> | |
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How Do Finns' Demographic Perceptions Relate to Anti-Immigration Tendencies: Exploring Assumptions About Immigrants in the Context of Intrasexual Competition

Despite the societal importance of immigration, knowledge about how attitudes and behaviors towards immigrants vary between the individuals of a native population is still lacking. Even less is known about the role of intrasexual competition in the individual variation in negative attitudes and behaviors towards immigrants, referred to as anti-immigration tendencies. Intrasexual competition takes place when two or more representatives of the same sex compete for the same resources that are relevant for reproduction, such as potential reproductive partners (Darwin, 1859/2009). The intrasexual competition theory of anti-immigration tendencies proposed by Antfolk et al. (2018) suggests that some of the variation in anti-immigration tendencies may be attributed to the potential role of immigrants as competitors for local reproductive partners. Improving the understanding of anti-immigration tendencies is vital, not least because perceived negative attitudes and behaviors hamper immigrants' physical and mental health (e.g., Jasinskaja-Lahti et al., 2006; Szaflarski & Bauldry, 2019).

Immigration Landscape in Finland and in the EU

The percentage of people with foreign backgrounds in Finland's total population has risen from 0.8 to 8.5 percent between 1990 and 2021 (Statistics Finland, n.d.-a). Several other European countries have witnessed a similar trend and since the mid-1980s, each year more people have moved into the European Union (EU) than left, resulting in positive net migration (European Commission, 2020). The overall population situations in Finland and the EU are also similar in that the natural change of the EU population has been negative since 2012 (Eurostat, 2022) and of the Finnish population since 2016 (Statistics Finland, n.d.-b). Negative natural change means that more deaths than births are recorded.

Immigration is seen as a possible solution to labor shortages both in the EU and in Finland (Alho et al., 2023; European Council, 2023). Furthermore, research proposes that an increased immigration to Finland would have remarkable positive effects on Finland's fiscal sustainability and economic growth (Alho et al., 2023). On the other hand, many native Finns seem to experience immigration as a threat to Finland (Croucher et al., 2021).

In 2014, over half (54 percent) of the immigration to Finland was mainly family-related, 18 percent mainly work-related, and 10 percent mainly study-related, whereas 11 percent arrived seeking international protection and 8 percent had some other main reason to immigrate (Sutela & Larja, 2015). The so-called refugee crisis with high numbers of asylum-seeking individuals arriving in the EU particularly in 2015, as well as Russia's war in

Ukraine initiated in early 2022, have increased the numbers of asylum seekers in the EU, while the COVID-19 pandemic dramatically reduced immigration especially during 2020–2021.

Formation of Anti-Immigration Tendencies

The formation of anti-immigration tendencies is affected by various psychological processes. The human tendency to categorize individuals into “us” and “them” is a basic notion within social psychology (Allport, 1954), and ingroup favoritism – the tendency to favor members of one’s own group over those in other groups – is well documented (Everett et al., 2015). Previous research has also demonstrated that people have a tendency to perceive outgroup members as more similar to one another than ingroup members, also known as the outgroup homogeneity effect (Quattrone & Jones, 1980). Moreover, people can have many false ideas about immigration. For example, it has been found that natives in the U.S. and in the EU tend to overestimate both the number of immigrants coming to their country and the negative consequences of immigration (e.g., Ipsos, 2014; Mehta, 2019).

The media portrayals of the 2014–2017 refugee crisis have presumably shaped native Finns’ current anti-immigration tendencies. Much of the European media coverage of this influx centered around the economic integration challenges of the immigrants and on the security threats that the immigration might pose (Ward, 2019). On a more general level, it has been claimed that the media often frame immigration as either economically, culturally, or criminally threatening, and that exposure to such media coverage can lead to negative attitudes towards immigration (Eberl et al., 2018). All in all, while portrayals of immigration in host-country media are not necessarily always accurate, they have a critical role in shaping natives’ attitudes (King & Wood, 2013).

Perceptions of certain types of features seem to be more refined than an ingroup vs. outgroup division. For example, research has demonstrated that people can have assumptions of sexual assertiveness based on ethnic background (Ghavami & Peplau, 2013). Walldén et al. (2022) asked Finnish adults to estimate how actively men and women from different ethnic origins (Finnish, Egyptian, Palestinian, Thai, and Vietnamese) are looking for sexual partners. They found that while Finnish men estimated that men from the Middle East were the ones most actively looking for sexual partners, Finnish women estimated that Finnish men were the most active in looking for sexual partners.

Dancygier et al. (2019) suggest that men are more likely than women to be both the agents and targets of prejudicial behaviors and that targeting an outgroup with violence may generate psychological benefits for individuals seeking to establish superiority and

dominance. Similarly, Ward (2019) found that groups of immigrants with a large proportion of young men receive substantially less approval from the host-country public than do other types of immigrating groups. Furthermore, the perception that immigrants coming to Finland are predominantly men has been found to create anxiety among natives (Croucher et al., 2021). Finally, there is some evidence that male immigrants are overrepresented in the media (Rosenthal, 2020). Such findings indicate that perceptions of an immigrant population's demographics can play a key role in relation to natives' anti-immigration tendencies.

Theoreticized Foundations of Men's Anti-Immigration Tendencies

A number of theories based on an evolutionary approach emphasize men's reproductive strategies and can help explain why men may have more anti-immigration tendencies than women. To begin with, intrasexual competition is usually more intense among men than it is among women (Trivers, 1972). According to Trivers (1972), women are generally more selective as to their sexual partners because the minimum required parental investment is higher than it is for men, reducing intrasexual competition between women. Accordingly, the social dominance theory suggests that competition over sexual partners is a type of resource conflict which is particularly likely to emerge between native and immigrant men (Dancygier et al., 2019). The so-called male warrior hypothesis proposes that men's psychology has been shaped by intergroup competition in order to help men acquire and protect reproductive resources (VanVugt, 2006). The theory suggests that gender-specific selective pressures favor cooperation with the members of one's own group but create hostility towards outsiders.

Perceptions of one's own life situation can also explain some of the individual variation in anti-immigration tendencies. Antfolk et al. (2018) studied how differences in native men's mate access and mate value can explain individual variation in native men's anti-immigration tendencies. They found that individuals with lower self-estimated mate value reported more negative attitudes towards immigrants than individuals with higher mate value. Mate value consists of the individual characteristics that affect the capacity to find and keep partners (Waynforth, 2001).

Furthermore, low mate access has been found to be associated with negative affect as a response to difficulties in finding a partner (Walldén et al., 2020), and difficulties in finding a partner also increase the risk of several other negative consequences, including outgroup prejudice (Klavina et al., 2011). Mate access is concerned with the frequency of encounters with potential partners as well as the frequency of perceived possibilities to engage with potential partners (Walldén et al., 2020). However, mate access is not only affected by

individual characteristics (i.e., mate value) but also by intrasexual competition and social context, such as how many potential partners one meets on an average day (Walldén et al., 2020). Mate access and mate value are associated in that individuals who regard themselves as desired partners will perceive frequent mating possibilities, while low mate access and mate value indicate a felt underdog status in intrasexual competition. However, mate access and mate value seem to deal with separate constructs (Walldén et al., 2020).

The intrasexual competition theory of anti-immigration tendencies presented by Antfolk et al. (2018) suggests that immigrants' individual features can influence the degree to which native men regard immigrants as a threat to their mate access. According to Antfolk et al. (2018), immigration can increase perceived mate competition, negatively affecting perceived mate access for native individuals with low mate value. The native men – especially men with low mate access and mate value who estimate that immigration mostly consists of other men – may have more anti-immigration tendencies than other native men, as the immigrating men could be perceived to constitute a threat to these native men's mate access. Dancygier et al. (2019) found that in Germany, men who live in areas where men are disadvantaged in mating markets are more likely to perceive refugees as a mating threat than other men.

In sum, mechanisms of intrasexual competition seem to be different for men and women, and theories of intrasexual competition mostly concern men. In addition, previous research suggests that women may actually have more positive attitudes towards female immigrants than male immigrants (Antfolk et al., 2018).

The Current Study

The current study contributes to an improved understanding of the associations between natives' estimates immigrants' demographic features – such as age, gender, and geographic origin – and natives' anti-immigration tendencies. The demographic estimates were analyzed within the framework of the intrasexual competition theory of anti-immigration tendencies presented by Antfolk et al. (2018). Hypothesis 5) builds on the finding by Wallden et al. (2022) that Finnish men estimated men from the Middle East to be the ones most actively looking for sexual partners compared to several other nationalities. The main aims of this study were to investigate a) whether native Finnish men's perceptions of the demographic features of immigrants (such as gender and age) are associated with anti-immigration tendencies and b) whether the possible associations are moderated by mate access or mate value. As I expected my hypotheses to mainly apply to men, I studied data from women merely exploratively.

The following five hypotheses were tested:

- 1) The native men who estimate that immigration mainly (vs. to a lesser degree) consists of other men have more anti-immigration tendencies.
- 2) The native men who estimate that immigration mainly (vs. to a lesser degree) consists of individuals in a reproductively active age (18–44 years) have more anti-immigration tendencies.
- 3) The native men who estimate that seeking a new partner is the main reason to immigrate to Finland for a larger proportion of immigrants than the response median have more anti-immigration tendencies.
- 4) The native men who estimate that the number of immigrants coming to Finland is higher than the response median have more anti-immigration tendencies.
- 5) The native men who estimate that immigration mainly (vs. to a lesser degree) consists of individuals from the Middle East have more anti-immigration tendencies.

Finally, I studied whether the association suggested by each hypothesis was stronger for men with low mate access or mate value.

Method

Ethical Statement

The current study was granted ethical permission by the Ethical Committee of the Departments of Psychology and Logopedics at the Åbo Akademi University. In the information text at the beginning of the survey, I described the nature of the study as well as the data integrity policy concerning survey answers. Also, I informed that participation was voluntary and that respondents had the right to interrupt their participation at any time without providing a reason. Finally, I explained that the survey data would be reported at group-level, and that individual results could thus not be connected with any particular respondent. Respondents gave their informed consent before taking part in the study.

Respondents

Native Finnish adults (18 years or above) residing in Finland at the time of taking the questionnaire were eligible to participate in this survey study. A native Finn, as I define it in this study, is a person born in Finland. A total of 260 people gave their informed consent and started answering the survey. Of those people, three were not born in Finland and one person did not reside in Finland at the time of taking the survey, and these people could thus not proceed to further survey questions. A total of 134 people completed the survey, resulting in a completion rate of 51.15 percent.

Of the people who completed the survey, 68 were men, 64 women and two reported other gender. The last-named two respondents were excluded as the sample size was not sufficient to perform analyses. The main focus was on men's responses, and the women's responses were studied exploratively. Respondents' age ranged from 18 to 79. The mean age was 42.22 years ($SD = 14.73$).

Procedure

I collected the research data via an anonymous, voluntary online survey (see Appendix). I created the survey with Survey Analytics, a secure online questionnaire software. I used convenience sampling and recruited adults residing in Finland as respondents through an online ad. I spread the survey ad via several Facebook groups and different online discussion forums. I first published the ad in the *Interpersonal Relations Research Group at Åbo Akademi* Facebook group. As I only gained a modest number of responses, I later published the ad on two more Facebook groups, on two popular Finnish discussion forums, on the discussion forums for four Finnish magazines, and on the discussion forum Reddit. Data collection lasted for 168 days, from the 15th of March to the 29th of August 2022. Respondents completed the survey in Finnish. After completing the survey, respondents were given the option to take part in a lottery of two 50-euro gift cards to a Finnish chain store by filling in their email address in a separate questionnaire.

Measures

In the survey, I inquired for the following demographic information from the respondents: age, municipality of residence, gender, relationship status, sexual orientation, education level, and income level. I then asked the respondents to estimate different demographic features related to people who immigrate to Finland by providing their estimates of the age, gender, geographic origin, main reason to immigrate to Finland, as well as the number of immigrants having arrived in Finland in 2019, 2020, and 2021. Furthermore, I included items measuring respondents' mate access, mate value, and anti-immigration tendencies in the survey, and used the results in the statistical analyses.

Gender Estimate. Respondents were asked to indicate their estimate of the gender of individuals who immigrate to Finland by dividing 100 percent between men, women, and others. The total of 100 percent had to be allocated entirely and with one-percent accuracy, and the same response logic was applied to all demographic estimates with the exception of the estimate of the number of immigrants.

Age Estimate. Respondents were asked to indicate their estimate of the age of people who immigrate to Finland by dividing 100 percent between age categories 0–17, 18–24, 25–44, 45–64, and 65 or more.

Estimate of the Main Reason to Immigrate. Respondents were asked to indicate their estimate of the main reason to immigrate to Finland by dividing 100 percent between the following: Asylum seeking or Refugee; Reasons related to work or studies; Partner or Family reunion; Seeking a new partner; Higher standard of living; and Other reasons.

Estimate of the Number of Immigrants. Respondents were asked to estimate the number of immigrants having arrived in Finland in 2019, 2020, and 2021. Estimates for three separate years were included so that any single event (such as the start of the COVID-19 pandemic) would not extensively affect the estimate. As a reference, the number of people having immigrated to Finland in 2018 (31 106 individuals) was given.

Estimate of the Geographic Origin. Respondents were asked to indicate their estimate of the geographic origin of individuals who immigrate to Finland by dividing 100 percent between the following geographic regions: Northern America; Latin America and the Caribbean; Northern Europe; Southern and Western Europe; Eastern Europe; Africa, the Middle East; Asia; and Australia and Oceania.

Mate Access. Respondents were asked to evaluate their mate value using the Mate Access Scale (Walldén et al., 2020). It is a 12-item self-report questionnaire for measuring mate access, or perceived opportunities to meet potential romantic partners. Each item is rated on a Likert-type scale, with four, five, or seven options depending on the type of question. The mate access scale has demonstrated adequate psychometric properties (Walldén et al., 2020).

Mate Value. Respondents were asked to evaluate their mate value using the 4-item Mate Value Scale (Edlund & Sagarin, 2014). It measures respondents' self-perceived mate value. The items are designed to measure one's desirability as a mate, and responses are given using a Likert-type scale, where two of the questions are on a 9-point scale, and the other two on a 7-point scale. This scale has demonstrated adequate psychometric properties (Edlund & Sagarin, 2014).

Anti-Immigration Tendencies. Respondents were asked to evaluate their anti-immigration tendencies using an anti-immigration tendencies measure. It consists of 16 items that assess behavioral and attitudinal responses to immigrants, and each of them is rated on a 5-point Likert-type scale ranging from “strongly disagree” to “strongly agree”. The items are statements that direct respondents to think of immigration both at an individual level (e.g., “I

would not mind spending time with an immigrant.”) and at a group level (e.g., “Immigrants are a threat to my home country.”). This anti-immigration tendencies measure has been used in a previous data collection for the thesis research by Fierro Smith (2022).

Statistical Analyses

I conducted the statistical analyses using SPSS 28.0 software for Mac OS (IBM Corp., 2021). I first performed descriptive analyses using a one-way ANOVA to compare different demographic aspects between male and female respondents. I then further analyzed the data using a two-way ANOVA and conducted the analyses separately for men and women. The independent variables – respondents’ estimates of the demographic features of immigrants – were dichotomized. Dichotomization helped encapsulate the results regarding whether estimates of immigrants’ demographic features were associated with anti-immigration tendencies.

To test hypothesis 1), I performed a two-way ANOVA to study if the native men who estimated that more than half of the immigrants coming to Finland were men reported more anti-immigration tendencies than the native men who estimated that half or fewer than half of the immigrants coming to Finland were men. Respondents’ estimate of immigrants’ gender was treated as an independent variable and anti-immigration tendencies as a dependent variable. I dummy-coded the independent variable so that 0 signified that the respondent estimated that 50 percent or fewer of the immigrants arriving in Finland were men and 1, correspondingly, signified that the respondent estimated that over 50 percent of the immigrants arriving in Finland were men.

To test hypothesis 2), I performed a two-way ANOVA to study if the native men who estimated that more than half of the immigrants coming to Finland were between 18 and 44 years of age reported more anti-immigration tendencies. Respondents’ estimate of immigrants’ age was treated as an independent variable and anti-immigration tendencies as a dependent variable. I dummy-coded the independent variable so that 0 signified that the respondent estimated that 50 percent or more of the immigrants were other than 18–44-year-olds, and 1 signified that the respondent estimated that the major age group of immigrants arriving in Finland consisted of 18–44-year-olds.

To test hypothesis 3), I performed a two-way ANOVA to study if the native men who estimated that seeking a new partner was the main reason to immigrate to Finland for a larger proportion of immigrants than the response median reported more anti-immigration tendencies. Respondents’ estimates of immigrants’ main reason to come to Finland was treated as an independent variable and anti-immigration tendencies as a dependent variable. I

dummy-coded the independent variable so that 0 signified that the respondent estimated that seeking a new partner was the main reason to immigrate to Finland for as many or fewer individuals than the response median, and 1 signified that the respondent estimated that seeking a new partner was the main reason to immigrate to Finland for more individuals than the response median.

To test hypothesis 4), I performed a two-way ANOVA to study if the native men who estimated that the number of immigrants coming to Finland was higher than the response median reported more anti-immigration tendencies. The mean value of the respondents' estimates of the total number of immigrants having arrived in Finland in 2019, 2020 and 2021 was treated as an independent variable and anti-immigration tendencies as a dependent variable. I dummy-coded the independent variable so that 0 signified that the respondent estimated the number of immigrants having arrived in Finland 2019–2021 at the response median or lower, and 1 signified that the respondent estimated that the number was above the response median.

To test hypothesis 5), I performed a two-way ANOVA to study if the native men who estimated that immigration mainly consisted of individuals from the Middle East reported more anti-immigration tendencies. Respondents' estimate of immigrants' geographic origin was treated as an independent variable and anti-immigration tendencies as a dependent variable. I dummy-coded the independent variable so that 0 signified that the respondent estimated that the single most common geographic origin of immigrants arriving in Finland was other than the Middle East, and 1 signified that the respondent estimated that the single most common geographic origin of immigrants was the Middle East.

Finally, to test whether mate access and mate value moderated the relationship between the independent variables in hypotheses 1–5 and anti-immigration tendencies, I performed moderation analyses using linear regression for the data from male respondents. I did not perform moderation analyses for the data from female respondents.

Results

Respondent Demographics

I first compared the means and standard deviations for age and the distributions of relationship status, sexual orientation, education, and income categories for male and female respondents (see Table 1). There were no significant differences between men and women (all p -values $> .05$).

Table 1*Respondents' Age, Relationship Status, Sexual Orientation, Education, and Income*

| Variable | Men <i>n</i> = 68 <i>n</i> (%) | Women <i>n</i> = 64 <i>n</i> (%) | Total <i>n</i> = 132 <i>n</i> (%) |
|---------------------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Age | | | |
| <i>M</i> (<i>SD</i>) | 41.03 (14.51) | 43.91 (14.73) | 42.22 (14.73) |
| Municipality of residence (%) | | | |
| One of the 10 most populous | 40 (58.8) | 44 (68.8) | 84 (63.6) |
| Other | 28 (41.2) | 20 (31.3) | 48 (36.4) |
| Relationship status (%) | | | |
| In a relationship | 41 (60.3) | 41 (64.1) | 82 (62.1) |
| Not in a relationship | 22 (32.4) | 21 (32.8) | 43 (32.6) |
| Other | 5 (7.4) | 2 (3.1) | 7 (5.3) |
| Sexual orientation (%) | | | |
| Bi | 7 (10.3) | 5 (7.8) | 12 (9.1) |
| Hetero | 59 (86.8) | 54 (84.4) | 113 (85.6) |
| Gay/Lesbian | 1 (1.5) | 1 (1.6) | 2 (1.5) |
| Other | 1 (1.5) | 4 (6.3) | 5 (3.8) |
| Education (%) | | | |
| Comprehensive school | 3 (4.4) | 1 (1.6) | 4 (3.0) |
| Upper secondary / Postsecondary | 25 (36.7) | 13 (20.4) | 38 (28.8) |
| Bachelor's degree | 17 (25.0) | 22 (34.4) | 39 (29.5) |
| Master's degree | 18 (26.5) | 19 (29.7) | 37 (28.0) |
| Licentiate / Doctor's degree | 5 (7.4) | 8 (12.5) | 13 (9.8) |
| Other | 0 (0.0) | 1 (1.6) | 1 (0.8) |
| Salary income, gross / year (%) | | | |
| 0–19 999 € | 17 (25.0) | 17 (26.6) | 34 (25.8) |
| 20 000–39 999 € | 26 (38.2) | 26 (40.6) | 52 (39.4) |
| 40 000–59 999 € | 13 (19.1) | 13 (20.3) | 26 (19.7) |
| 60 000–89 999 € | 10 (14.7) | 7 (10.9) | 17 (12.9) |
| 90 000–149 999 € | 2 (3.0) | 1 (1.6) | 3 (2.3) |
| 150 000– € | 0 (0.0) | 0 (0.0) | 0 (0.0) |

Note. A one-way ANOVA showed that the values were equally distributed across men and women.

Respondents' Anti-Immigration Tendencies, Mate Access and Mate Value

I then compared the means and standard deviations for anti-immigration tendencies scores, mate access scores, and mate value scores for male and female respondents (see Table 2). There were no significant differences in these regards between men and women (all p -values $> .05$).

Table 2

Respondents' Anti-Immigration Tendencies, Mate Access, and Mate Value

| Variable | Men $n = 68$ | Women $n = 64$ | Total $n = 132$ |
|-----------------------------|-----------------|-------------------|--------------------|
| Anti-immigration tendencies | | | |
| $M (SD)$ | 2.03 (0.99) | 1.77 (0.93) | 1.90 (0.96) |
| Mate access | | | |
| $M (SD)$ | 2.32 (0.53) | 2.24 (0.56) | 2.28 (0.54) |
| Mate value | | | |
| $M (SD)$ | 4.74 (1.60) | 4.79 (1.75) | 4.77 (1.67) |

Note. The scale for anti-immigration tendencies is 1–5, for mate access 1–5.58, and for mate value 1–8. A one-way ANOVA showed that the values were equally distributed across men and women.

Demographic Perceptions Concerning Immigrants

Next, I compared the distributions of key demographic estimates concerning immigration to Finland for male and female respondents. There were no significant differences in these regards between men and women (all p -values $> .05$).

Table 3

Respondents' Estimates of the Age, Gender, Geographic Origin, and Main Reason to Immigrate for Immigrants Who Arrive in Finland

| Variable | Men <i>n</i> = 68 <i>n</i> (%) | Women <i>n</i> = 64 <i>n</i> (%) | Total <i>n</i> = 132 <i>n</i> (%) |
|--|-----------------------------------|-------------------------------------|--------------------------------------|
| Gender estimate | | | |
| More than 50% of immigrants are men | 49 (72.1) | 22 (65.6) | 41 (68.9) |
| Fewer than or 50% of immigrants are men | 19 (27.9) | 42 (34.4) | 91 (31.1) |
| Age estimate | | | |
| More than 50% of immigrants are 18–44 | 7 (10.3) | 6 (9.9) | 13 (9.8) |
| Fewer than or 50% of immigrants are 18–44 | 61 (89.7) | 58 (90.1) | 119 (90.2) |
| Estimate of the main reason to immigrate (%) | | | |
| Seeking a new partner more important reason than estimate median | 28 (41.2) | 23 (35.9) | 51 (38.6) |
| Seeking a new partner as or less important reason than estimate median | 40 (58.8) | 41 (64.1) | 81 (61.4) |
| Estimate of the geographic origin (%) | | | |
| The Middle East the single most common origin | 15 (22.1) | 12 (18.8) | 27 (20.5) |
| Other than the Middle East the single most common origin | 53 (77.9) | 52 (81.2) | 105 (79.5) |

Note. A one-way ANOVA showed that the values were equally distributed across men and women.

Analyses of Demographic Perceptions and Anti-Immigration Tendencies

Gender Estimate and Anti-Immigration Tendencies

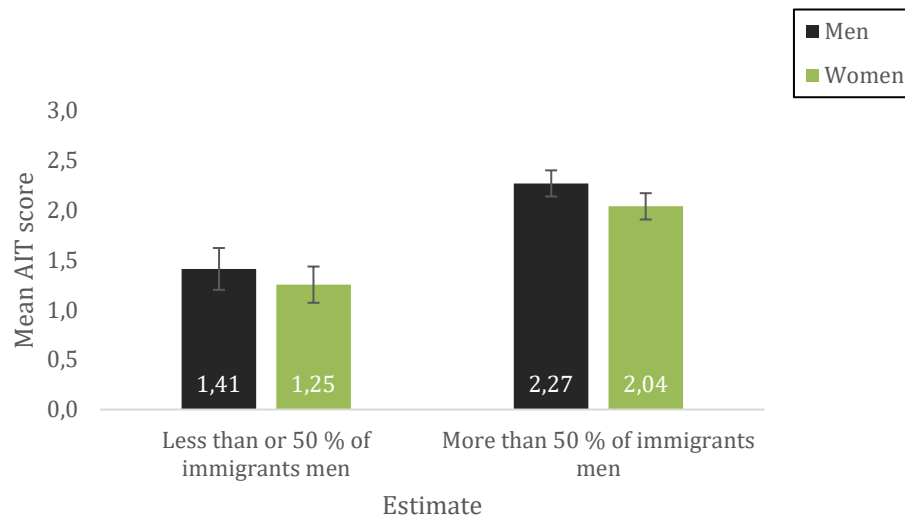
Hypothesis 1) predicted that native men who estimate that immigration mainly (vs. to a lesser degree) consists of other men have more anti-immigration tendencies. The results showed that most male respondents estimated that most immigrants who arrive in Finland are men (see Table 3). In accordance with hypothesis 1), a two-way ANOVA revealed that these respondents reported significantly more anti-immigration tendencies ($F[1, 66] = 11.98, p < .001$) compared with the respondents who estimated that 50 percent or fewer of the immigrants are men (see Figure 1).

The results were similar for female respondents. In parallel with male respondents, most female respondents estimated that more than half of the immigrants are men, even though this percentage was slightly lower (see Table 3). Moreover, the female respondents

who estimated that the majority of immigrants who arrive in Finland are men also demonstrated significantly more anti-immigration tendencies ($F[1, 62] = 12.22, p = 0.001$) than other female respondents (see Figure 1).

Figure 1

Mean Values of Respondents' Estimates of the Gender of Immigrants Arriving in Finland and Anti-Immigration Tendencies Score



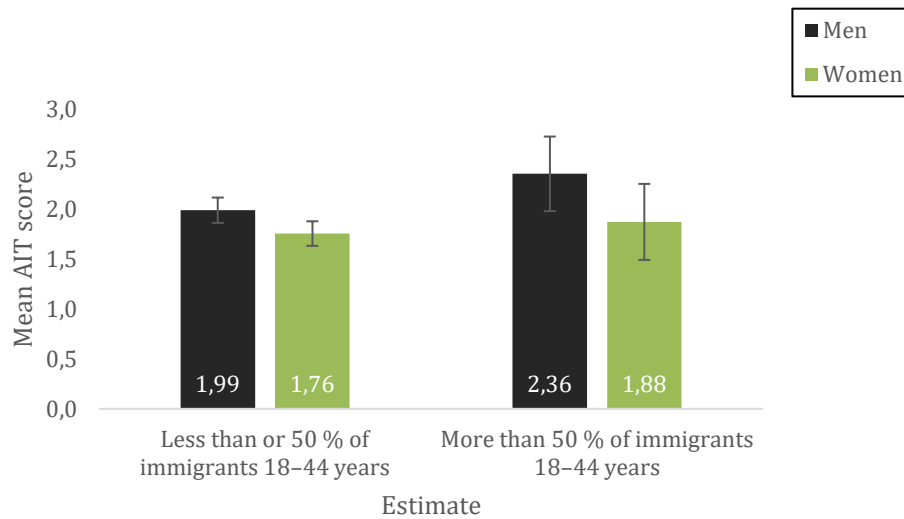
Note. The anti-immigration tendencies (AIT) score is on a scale of 1–5 points. The respondents were grouped into those who estimated that half or fewer of the immigrants are men vs. those who estimated that over half of the immigrants are men. Error bars represent standard errors.

Age Estimate and Anti-Immigration Tendencies

Hypothesis 2) predicted that the native men who estimate that immigration mainly (vs. to a lesser degree) consists of individuals in a reproductively active age (18–44 years) have more anti-immigration tendencies. Contrary to the hypothesis, I did not find a significant difference between estimates that the majority of immigrants arriving in Finland are between 18 years and 44 years and anti-immigration tendencies ($F[1, 66] = 0.85, p = 0.359$) (see Figure 2). The results were similar for female respondents ($F[1, 62] = 0.086, p = 0.770$) (see Figure 2).

Figure 2

Mean Values of Respondents' Estimates of the Age of Immigrants Arriving in Finland and Anti-Immigration Tendencies Score



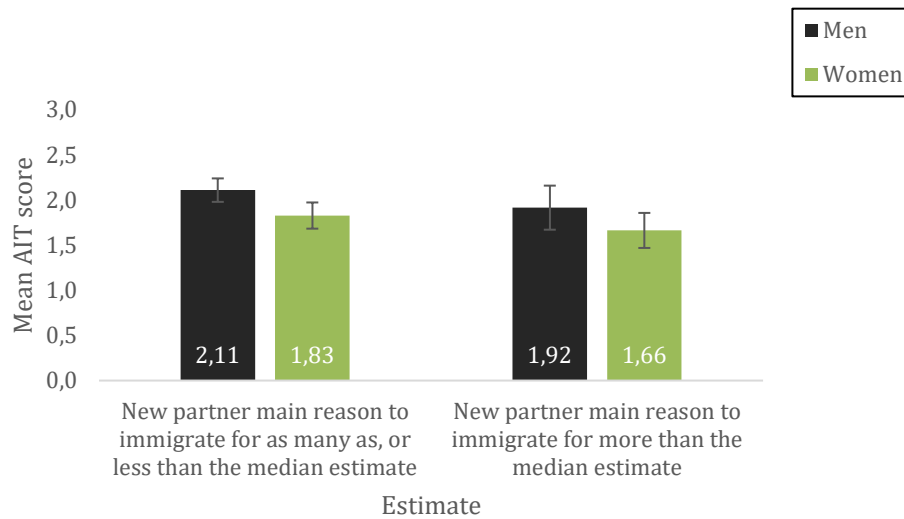
Note. The anti-immigration tendencies (AIT) score is on a scale of 1–5 points. The respondents were grouped into those who estimated that half or fewer of the immigrants are 18–44 years of age vs. those who estimated that over half of the immigrants are 18–44 years. Error bars represent standard errors.

Estimate of the Main Reason to Immigrate and Anti-Immigration Tendencies

Hypothesis 3) predicted that the native men who estimate that seeking a new partner was the main reason to immigrate to Finland for a larger proportion of immigrants than the response median ($Mdn = 2\%$) have more anti-immigration tendencies. However, I did not find such an association ($F[1, 66] = 0.63, p = 0.430$) (see Figure 3). The results were similar for female respondents ($Mdn = 2\%$) ($F[1, 62] = 0.46, p = 0.500$) (see Figure 3).

Figure 3

Mean Values of Respondents' Estimates of the Proportion of Immigrants Whose Main Reason to Immigrate to Finland is Finding a New Partner and Anti-Immigration Tendencies Score



Note. The anti-immigration tendencies (AIT) score is on a scale of 1–5 points. The respondents were grouped into those who estimated that seeking a new partner was the main reason to immigrate to Finland for as many or fewer individuals than the response median vs. those who estimated that seeking a new partner was the main reason to immigrate to Finland for more individuals than the response median. Error bars represent standard errors.

Estimate of the Number of Immigrants and Anti-Immigration Tendencies

Hypothesis 4) predicted that the native men who estimate that the number of immigrants coming to Finland is higher than the response median have more anti-immigration tendencies. Contrary to the hypothesis, I did not find a difference between respondents' estimates of the number of immigrants and anti-immigration tendencies score ($F[1, 66] = 0.84, p = 0.362$) (see Figure 4).

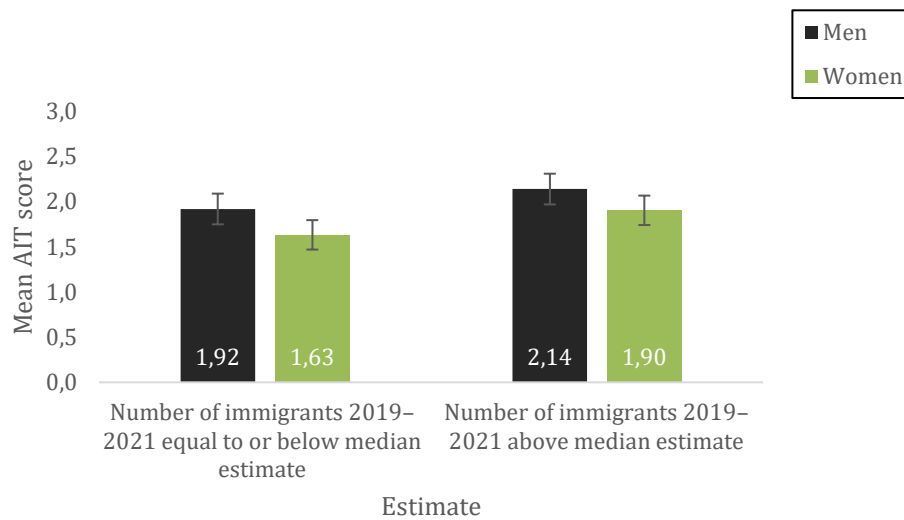
The mean values for the estimated total numbers of immigrants during 2019, 2020, and 2021 were higher than the median values, indicating that the data were positively skewed (see Figure 5). In other words, relatively low estimates were more frequent than very high estimates in my data. The standard deviations were high, showing that the estimates were rather varied (see Figure 5).

The results were similar for female respondents. The data from female respondents were also positively skewed and characterized by considerable standard variations (see Figure 5). Like with male respondents, there was no difference between female respondents'

estimates of the number of immigrants and anti-immigration tendencies score ($F[1, 62] = 1.38, p = 0.245$) (see Figure 4).

Figure 4

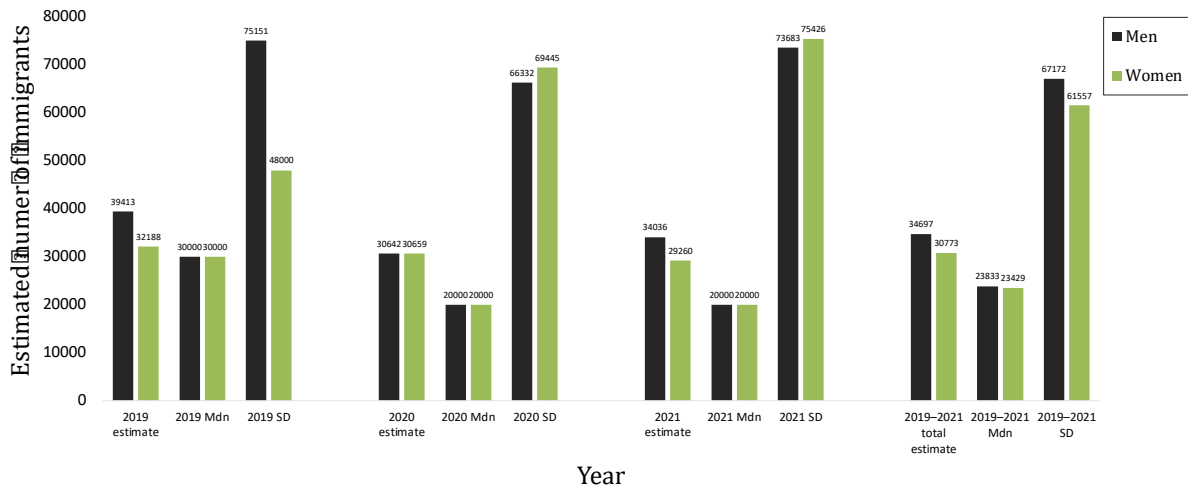
Mean Values of Respondents' Estimates of the Number of Immigrants Having Arrived in Finland During 2019–2021 and Anti-Immigration Tendencies Score



Note. The anti-immigration tendencies (AIT) score is on a scale of 1–5 points. The respondents were grouped into those who estimated that the number of immigrants was equal to or below the response median of their gender group (men or women) vs. those who estimated that the number of immigrants was above the response median of their gender group. Error bars represent standard errors.

Figure 5

Mean Values, Median Values and Standard Deviations of Respondents' Estimates of the Number of Immigrants Who Arrived in Finland in 2019, 2020, 2021, and in Total During 2019–2021



Note. A one-way ANOVA showed a significant difference between men and women as to the estimated number of immigrants having arrived in Finland in 2019 ($F[1,130] = 3.92, p = .05$) and in 2021 ($F[1,130] = 3.92, p = .05$). For 2020 the estimates were equally distributed across men and women.

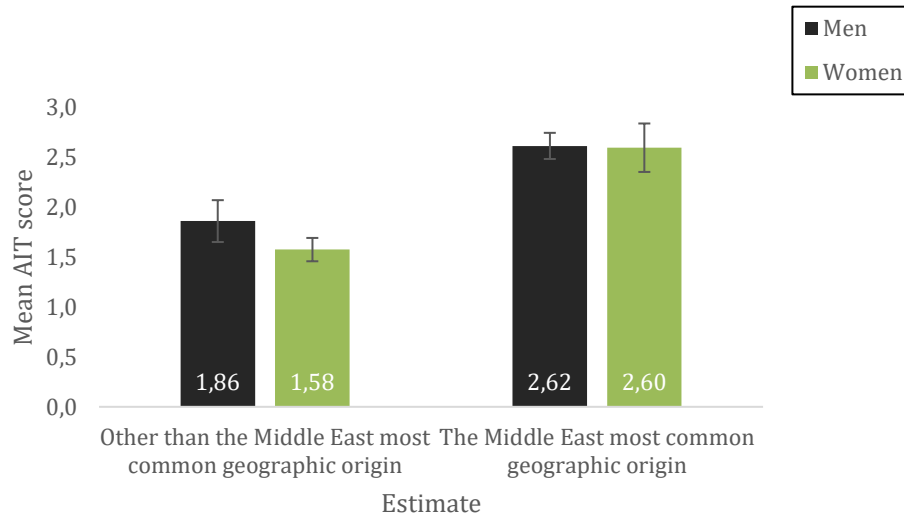
Estimate of the Geographic Origin and Anti-Immigration Tendencies

Hypothesis 5) predicted that the native men who estimate that immigration mainly (vs. to a lesser degree) consists of individuals from the Middle East have more anti-immigration tendencies. In accordance with the hypothesis, those male respondents who estimated that the single most common geographic origin of immigrants arriving in Finland was the Middle East reported significantly more anti-immigration tendencies ($F[1, 66] = 7.43, p = 0.008$) compared to the male respondents who estimated that the single most common geographic origin of immigrants arriving in Finland was something other than the Middle East (see Figure 6).

The results were similar for female respondents. Those female respondents who estimated that the single most common geographic origin of immigrants arriving in Finland was the Middle East reported significantly more anti-immigration tendencies compared to the female respondents who estimated that the single most common geographic origin of immigrants arriving in Finland was something other than the Middle East ($F[1, 62] = 14.36, p = 0.001$) (see Figure 6).

Figure 6

Mean Values of Respondents' Estimates of the Most Common Geographic Origin of Immigrants Arriving in Finland and Anti-Immigration Tendencies Score



Note. The anti-immigration tendencies (AIT) score is on a scale of 1–5 points. The respondents are grouped into those who estimated that the most common geographic origin of immigrants was the Middle East vs. those who estimated that the most common geographic origin of immigrants was other than the Middle East. Error bars represent standard errors.

Moderating Effects of Mate Access and Mate Value on Anti-Immigration Tendencies

I predicted that the associations between the estimates of the demographic features of immigrants in hypotheses 1–5 are stronger for men with low mate access or mate value. However, I did not find any such moderating effects (all p -values > 0.05) (see Table 4).

Table 4

Results from the Moderation Analysis Using Linear Regression to Investigate Possible Moderating Effects of Mate Access and Mate Value on the Relationships Between Finnish Men's Estimates of the Demographic Features of Immigrants Presented in Hypotheses 1–5 and Anti-Immigration Tendencies

| Hypothesis | Mate access | Mate value |
|------------|---|---|
| 1) | $b = 0.00$ 95% CI [-0.04, 0.04] $t = 0.02$ $p = 0.985$ | $b = 0.00$ 95% CI [-0.01, 0.01] $t = 0.45$ $p = 0.656$ |
| 2) | $b = -0.03$ 95% CI [-0.06, 0.01] $t = -1.45$ $p = 0.152$ | $b = -0.01$ 95% CI [-0.02, 0.00] $t = -1.27$ $p = 0.209$ |
| 3) | $b = -0.22$ 95% CI [-1.16, 0.73] $t = -0.46$ $p = 0.648$ | $b = -0.16$ 95% CI [-0.46, 0.15] $t = -1.03$ $p = 0.309$ |
| 4) | $b = 0.00$ 95% CI [0.00, 0.00] $t = -0.32$ $p = 0.751$ | $b = 0.00$ 95% CI [0.00, 0.00] $t = -0.13$ $p = 0.894$ |
| 5) | $b = -0.01$ 95% CI [-0.06, 0.05] $t = -0.35$ $p = 0.730$ | $b = 0.00$ 95% CI [-0.01, 0.01] $t = -0.01$ $p = 0.994$ |

Discussion

The main aims of the current study were to investigate a) whether native Finnish men's perceptions of the demographic features of immigrants are associated with anti-immigration tendencies and b) whether the possible associations are moderated by mate access or mate value. To study these questions, I formulated five hypotheses based on the intrasexual competition theory of anti-immigration tendencies presented by Antfolk et al. (2018). The theory suggests that the variation in anti-immigration tendencies can be partially attributed to the potential role of immigrants as competitors for local reproductive partners.

My sample was a convenience sample collected through an online survey, consisting of 68 male respondents. Data from 64 female respondents were studied exploratively.

To study each hypothesis, I performed two-way ANOVAs. I divided the respondents into two groups using dummy coding. To investigate whether there were moderating effects of mate access and mate value on the relationships between the respondents' estimates of the demographic features of immigrants and anti-immigration tendencies, I performed regression analyses.

Main Findings and Interpretations

The core findings indicate that perceptions about immigrants' demographic background may explain some of the variation in native Finnish men's anti-immigration tendencies. Intrasexual competition is a possible explanation (among others) to why some Finnish men have more anti-immigration tendencies and others less. Two of the five hypotheses in this study were supported by the analyses and three were rejected. The results suggest that Finnish men's anti-immigration tendencies are not associated with immigrants' age, reason to immigrate, or number of immigrants arriving in Finland. Instead, the results indicate that immigrants' gender and geographic origin are associated with Finnish men's anti-immigration tendencies, such that immigrants' male gender and Middle Eastern origin were associated with more anti-immigration tendencies. However, the results are far from indisputable and more rigorous tests of the hypotheses are needed in order to draw more definite conclusions.

Gender Estimate and Anti-Immigration Tendencies

In line with hypothesis 1), the analysis revealed that the native Finnish men who estimated that most immigrants who arrive in Finland are men reported more anti-immigration tendencies than the native men who estimated that half or fewer of the immigrants are men. This finding provides support for the intrasexual competition theory of anti-immigration tendencies (Antfolk et al., 2018), indicating that the men who estimated that most immigrants who arrive in Finland are men may have regarded those immigrant men as possible competitors for reproductive partners and reported more anti-immigration tendencies than other male respondents for this reason. Another possible explanation for why immigrating men in particular seem to induce negative response is provided by the male warrior hypothesis (VanVugt, 2007). It might be that the positive association between higher estimates of the proportion of immigrating men and anti-immigration tendencies can partially be explained by outgroup hostility motivated by the inclination to protect reproductive resources, as the male warrior hypothesis suggests.

Age Estimate and Anti-Immigration Tendencies

The analysis of hypothesis 2) did not support the prediction that there would be an association between native Finnish men's estimates that most immigrants (of all genders) were in a reproductively active age (18–44 years) and more anti-immigration tendencies. However, as my data do not provide information of gender-specific estimates of immigrants' age, the current study cannot suggest an association between native men's estimates of specifically immigrant *men's* age and anti-immigration tendencies. On the other hand, as the results for hypothesis 1) also suggest, respondents may think of immigrants dominantly as men regardless. Moreover, there is no reason to assume that respondents would estimate there to be considerable differences between immigrating men's and women's demographic features, such as age. In other words, the results indicate that immigrants' age does not seem to be related to anti-immigration tendencies.

Estimate of the Main Reason to Immigrate and Anti-Immigration Tendencies

The analysis of hypothesis 3) did not provide support for the prediction that native men, who estimated that seeking a new partner was the main reason to immigrate to Finland for a larger proportion of immigrants than the response median, would have more anti-immigration tendencies. Overall, respondents estimated that seeking a new partner was the main reason to immigrate to Finland for relatively few individuals. The estimates varied between 0 and 24 percent, and the mode was 0 percent, indicating that respondents found seeking a new partner to be a relatively unimportant reason to immigrate. Thus, it may be less surprising that I did not find an association between higher estimates of seeking a new partner as the main reason to immigrate and more anti-immigration tendencies.

Estimate of the Number of Immigrants and Anti-Immigration Tendencies

The analysis of hypothesis 4) did not support the prediction that there would be an association between native Finnish men's estimates that the number of immigrants coming to Finland is higher than the response median and more anti-immigration tendencies. This is to say that the estimated volume of immigration seems to be irrelevant regarding anti-immigration tendencies while certain individual demographic features of immigrants may have a more essential role. In general, the estimates of the number of immigrants who arrived in Finland in 2019, 2020, and 2021 were rather modest. This might be partially due to the actual number of individuals having immigrated to Finland in 2018 given as a reference, and partially due to that respondents may have assumed the COVID-19 pandemic to have reduced immigration.

Estimate of the Geographic Origin and Anti-Immigration Tendencies

The analysis of hypothesis 5) revealed that native Finnish men who estimated that most immigrants who arrived in Finland were from the Middle East reported more anti-immigration tendencies compared to those who estimated that 50 percent or fewer of the immigrants who arrive in Finland are men or come from some other region than the Middle East. In line with Walldén et al. (2022), the results suggest that native Finnish men may perceive Middle Eastern men as sexually more assertive than men from other geographic regions and thus regard them as more competitive sexual rivals than men from other regions. On the other hand, it is also possible that the results reflect native Finnish men's concern for native Finnish women. This possibility is supported by the fact that, in line with Finnish men, native Finnish women who estimated that most immigrants who arrived in Finland were from the Middle East reported more anti-immigration tendencies than other female respondents. Croucher et al. (2021) reported some fear among native Finns regarding the perceived differences in behaviors towards women in the Middle East as opposed to in Finland. The perception of such cultural distance may also explain these findings. Albada et al. (2021) found that perceived cultural distance in social values was associated with more negative attitudes in a Dutch sample. Fietkau and Hansen (2018) report that immigrants coming to Germany and Denmark trigger both economic and cultural fears in the native populations. One fear was that immigrants would exploit welfare benefits, and religious symbols (such as headscarves) were associated with more negative attitudes towards immigrants (Fietkau & Hansen, 2018). The findings from the current study imply that, in addition to perceived intrasexual competition, perceived cultural distance and perceived economic threat may explain some of the variation in Finnish men's anti-immigration tendencies.

The Current Political Situation in Europe

It may be that the political uproar in Europe caused by Russia's war in Ukraine has influenced native Finns' current perceptions about immigrants. For example, most Ukrainian asylum seekers are, as is well known, women and children (OCHA Services, 2022). This might be reflected in the results; speculatively, estimates of the proportion of male immigrants may have been lower than they would have been without Russia's war. Male respondents did presumably not regard women and individuals in non-reproductive age (i.e., children) as an intrasexual threat.

Moderation by Mate Access and Mate Value

I did not find support for a moderating effect of mate access or mate value on the relationships between natives' estimates of any of the studied demographic features of

immigrants and anti-immigration tendencies. This was contrary to my predictions. On one hand, I had hypothesized that limited mate access might accentuate perceptions of intrasexual rivalry and that there might be a moderating effect of mate access. In addition, Antfolk et al. (2018) found that individuals with lower mate value held more negative attitudes towards immigrants than individuals with higher mate value. Based on this evidence, I had expected a moderating effect of mate value. However, the anti-immigrant attitudes measure used by Antfolk et al. (2018) was somewhat different from the anti-immigration tendencies measure used in the current study. Whereas the measure in the study by Antfolk et al. (2018) had an emphasis on respondents' attitudes towards immigration to Finland, the current study focused more on attitudes and behaviors towards immigrating individuals. This difference may at least partially explain why the findings differ from those by Antfolk et al. (2018).

At any rate, the fact that predictions regarding the moderating effects of mate access and mate value were rejected implies that Finnish men's perceptions of their access to partners or desirability as a partner do not affect anti-immigration tendencies. This suggests that male warrior hypothesis (VanVugt, 2007), rather than the intrasexual competition theory of anti-immigration tendencies (Antfolk et al., 2018) may explain the results. Also, the lack of moderating effects implies that factors other than mate competition may explain that specifically men from the Middle East seem to spark native men's anti-immigration tendencies. Perceived cultural distance, perceived sexual assertiveness, or perceived threat towards women may be such explanatory factors.

Strengths and Limitations of the Current Study

The current study is, to my knowledge, a pioneering attempt to investigate associations between natives' estimates of immigrants' demographic features and anti-immigration tendencies in the context of intrasexual competition. The study connects theories of intrasexual competition and research on how anti-immigration tendencies are formed, building on previous findings. I consider those qualities to be strengths of the current study.

Some limitations should be pointed out as well. Firstly, I will discuss some limitations with regards to the representativeness of the sample. On a general note, online survey studies are a popular data gathering method, as they are relatively easy and affordable to conduct (e.g., Saleh & Bista, 2017). However, the representativeness of the sample is an important concern. Not everyone uses the internet or follows social media platforms and other internet forums equally actively.

As to basic demographic features, my sample differed somewhat from the Finnish population demographics as a whole, and this implies that the results cannot be generalized to

a national level without certain reservations. My sample was somewhat more highly educated and more affluent than the national average. In my sample, 66.0 percent of the respondents had reached bachelor's degree or a higher educational degree, whereas the national equivalent was 24.2 percent in 2021 (Statistics Finland, 2023-a)¹. I divided income into six groups, and while the nationwide percentage representing the lowest income group (0–19 999 gross euros per year) was 48.0 in 2021 (Statistics Finland, 2023-b)², in my sample the corresponding percentage was only 25.8. Several studies suggest that more educated or affluent individuals are more likely to participate in surveys than less educated or affluent individuals (e.g., Warriner et al., 2002). Such notions regarding representativeness are relevant, as previous research implies that an individual's demographic background may be associated with their attitudes towards immigrants. For example, Fietkau and Hansen (2018) found that less educated Danes were less accepting towards non-Western immigrants in their country compared with more educated Danes. Borgonovi and Pokropek (2019) report that highly educated individuals expressed more openness to immigration than those with a lower educational level, and that as much as 60 percent of that difference was due to the mediated effect through feelings of threat.

Furthermore, one's living environment may affect attitudes towards immigration. For example, Lahdelma (2020) found differences in attitudes towards asylum seekers between individuals from urban and rural backgrounds, such that rural reactions were more positive than urban reactions. Similarly, Jaakkola (2009) reports that while the fear of sexual harassment decreased in rural areas, it increased in the metropolitan area in Finland. In my sample, 63 percent of the respondents resided in one of the ten most populous municipalities of Finland while the corresponding percentage on the national level is 42 (Statistics Finland, n.d.-a). In other words, my sample seems to be somewhat more urban than the Finnish generation in general.

Secondly, I will describe a few considerations regarding respondent drop-out. The number of people who started answering the survey but dropped out was 120, which is 46 percent of the total number of people who participated in the survey. The question with the single largest termination rate (39 people or 31 percent of all dropouts) was the one where

¹ It should be noted that the statistics from Statistics Finland include Finnish citizens regardless of possible non-Finnish ethnic background, not only the individuals referred to as native Finns in the current study.

² The data in the current study consist of responses from individuals, who are 18 years and above, whereas the nationwide statistics by Statistics Finland register all individuals who are 15 years and above.

respondents were asked to estimate the age of immigrants who arrive in Finland. This question was the first one after demographic background questions. Respondents probably experienced the background questions as quick and easy to answer, whereas this was the first question requiring the respondents to give an estimate. The increased cognitive effort required to answer this question might explain the high termination rate.

The question with the second largest termination rate (27 people or 21 percent of all dropouts) was a question about immigrants' geographic background, also including allocating 100 percent in a similar way than described above, this time between nine different geographic areas. It is possible that respondents experienced answering the question as challenging due to this relatively high number of categories to which the percentages were to be allocated. After this question the drop-out rate was more evenly distributed. In other words, I might have reached a higher completion rate, had the question design been somewhat different.

Thirdly, the sample size was somewhat modest, with 68 male respondents in my main sample and 64 female respondents whose responses were used exploratively. A bigger sample size would thus have provided more statistical power for the analyses. I conducted a post hoc power analysis for two-way ANOVA using G*Power3 (Faul et al., 2007) to test the statistical power of the main analyses reached with the current sample size of 68 respondents. The analysis revealed that the sample size was sufficient to find large effects ($f = .25$, $\alpha = .05$), but that a bigger sample would have been required to detect medium effect size ($f = .50$, $\alpha = .05$) or small effect size ($f = .80$, $\alpha = .05$). The power analysis showed that a sample of 84 respondents would have been required to detect medium effect size and a sample of 210 respondents to detect a small effect size. A post hoc power analysis for regression using G*Power3 (Faul et al., 2007) to test the statistical power of the moderation analyses also showed that the sample size in the current study was sufficient to detect large effect size but not medium or small effect size.

Fourthly, the hypotheses may not be completely independent of each other. It is possible that some respondents are more frequently represented in the groups selected by dummy coding than others. However, investigating such connections fell outside the scope of the current study.

Fifthly, and lastly, a remark regarding the question design and how it should be considered when interpreting the results. The questions that I used in order to study the hypotheses varied structurally, as did the dummy coding for each question. As for hypothesis 1), for example, respondents answered a question where they estimated the immigrants'

demographic features in terms of gender, allocating the total of 100 percent between three gender categories (men, women, and other genders). Respondents who had estimated that most immigrants were men were selected in the dummy coding phase. As for hypothesis 2), on the other hand, respondents estimated the immigrants' demographic features in terms of age, allocating the total of 100 percent between five age categories. In the dummy coding, respondents who estimated that most immigrants fell into the two middle categories put together, were selected. In other words, it was statistically more likely that some selected groups would be larger than others. As for the example above, if the gender estimates were randomly distributed, one third or 33 percent of them would fall into the selected group, whereas the corresponding share for the age estimates would be two fifths or 40 percent. The practical implication is that the percentages of respondents for different questions are not directly comparable.

Future Directions

Future studies could pose further questions to continue investigating whether the intrasexual competition theory of anti-immigration tendencies proposed by Antfolk et al. (2018) can explain the findings from the current study, or if some other theories would seem to offer more accurate explanations. For example, further analysis could shed light on the relationship between respondents' anti-immigration tendencies and age, relationship status, sexual orientation, education, and income. Results from such analyses could be compared with previous evidence suggesting that respondents' demographic features are associated with anti-immigration tendencies. Antfolk et al. (2018) found that, compared to individuals with other relationship statuses, single individuals reported most negative attitudes to immigrants. Furthermore, future research could investigate whether the accuracy of respondents' estimates of immigrants' demographic qualities is associated with anti-immigration tendencies.

As a general note, future research designs might benefit from directing respondents to specifically consider immigrants of the same gender as themselves in order to effectively capture the effects of intrasexual competition.

Conclusions

The results from the current study suggest that native Finnish men's anti-immigration tendencies are associated with their perceptions of immigrants' gender and geographic origin. Finnish men who estimated that most immigrants coming to Finland were men reported more anti-immigration tendencies than other male respondents. In addition, Finnish men who estimated that the main geographic origin of immigrants coming to Finland was the Middle

East reported more anti-immigration tendencies than other male respondents. Estimates of immigrants' age, reason to immigrate, or number of immigrants were not associated with anti-immigration tendencies. Moreover, Finnish men's perceptions of their access to potential reproductive partners or their own desirability as partners did not moderate the associations between perceptions of immigrants and anti-immigration tendencies. The current study thus partially supports the intrasexual competition theory of anti-immigration tendencies proposed by Antfolk et al. (2018). While intrasexual competition seems to explain some of the individual variation in negative attitudes and behaviors towards immigrants, other factors, such as perceived cultural distance and threat from immigrants, also seem to have a key role.

Further research is required in order to continue constructing an improved understanding of the associations between natives' estimates of immigrants' demographic features in the context of intrasexual competition.

Summary in Swedish – Svensk sammanfattning

Hur förhåller sig finländarnas demografiska uppfattningar till anti-immigrationstendenser: Antaganden om invandrare med intrasexuell tävling som referensram

Trots invandringens samhälleliga betydelse saknas det fortfarande kunskap om hur attityder och beteenden gentemot invandrare varierar mellan individer i en infödd befolkning. Ännu mindre är känt om vilken roll intrasexuell tävling spelar för den individuella variationen i negativa attityder och beteenden gentemot invandrare, så kallade anti-immigrationstendenser. Intrasexuell tävling äger rum när två eller flera representanter av samma kön tävlar om samma resurser som är relevanta för reproduktion, såsom potentiella reproduktiva partner (Darwin, 1859/2009). Teorin om intrasexuell tävling och anti-immigrationstendenser av Antfolk et al. (2018) föreslår att en del av variationen i anti-immigrationstendenser kan vara förknippad med invandrarnas potentiella roll som konkurrenter om lokala reproduktiva partner.

År 2014 var 54 procent av invandringen till Finland huvudsakligen familjerelaterad, 18 procent huvudsakligen arbetsrelaterad och 10 procent huvudsakligen studierelaterad, medan 11 procent anlände för att söka internationellt skydd och 8 procent hade någon annan huvudorsak för migrationen (Sutela & Larja, 2015). Den så kallade flyktingkrisen med ett stort antal asylsökande som anlände till EU, särskilt under 2015, samt Rysslands krig i Ukraina som inleddes i början av 2022, har ökat antalet asylsökande i EU, medan covid-19-pandemin minskade invandringen dramatiskt, särskilt under perioden 2020–2021.

Andelen personer med utländsk bakgrund av Finlands totala befolkning har ökat från 0,8 till 8,5 procent mellan 1990 och 2021 (Statistics Finland, n.d.-a). Flera andra europeiska länder har sett en liknande trend, och sedan mitten av 1980-talet har fler människor flyttat in i Europeiska unionen varje år än lämnat den, vilket resulterat i positiv nettomigrering (European Commission, 2020). Enligt forskning kan invandring bidra till att upprätthålla välfärdssamhället eftersom den finska befolkningen åldras och födelsetalen är otillräckliga för att upprätthålla befolkningstillväxten (Alho et al., 2023). Å andra sidan verkar många infödda finländare uppleva invandring som ett hot mot Finland (Croucher et al., 2021).

Uppkomsten av anti-immigrationstendenser påverkas av olika psykologiska processer. Den mänskliga tendensen att kategorisera individer i "oss" och "dem" är en grundläggande iakttagelse inom socialpsykologin (Allport, 1954), och ingrupsfavoritism – tendensen att favorisera medlemmarna i den egna gruppen framför individer i andra grupper – är väl

dokumenterad (Everett et al., 2015). Det har också visats att det finns en tendens att uppfatta utgruppsmedlemmar som mer lika varandra än ingruppsmedlemmar, även kämnt som utgruppshomogenitetseffekten (Quattrone & Jones, 1980). Dessutom kan människor ha många falska föreställningar om invandring. Till exempel tenderar de infödda i USA och EU att överskatta både antalet invandrare till sitt land och de negativa konsekvenserna av immigration (t.ex. Ipsos, 2014; Mehta, 2019).

Hur flyktingkrisen 2014–2017 framställdes i olika medier har förmodligen format infödda finländares nuvarande anti-immigrationstendenser. En stor del av den europeiska mediebevakningen av denna tillströmning kretsade kring invandrarnas ekonomiska integrationsutmaningar och de säkerhetshot som invandringen kunde utgöra (Ward, 2019). På ett mer generellt plan har det hävdats att media ofta framställer invandring som antingen ekonomiskt, kulturellt eller kriminellt hotfullt, och att exponering för sådan mediebevakning kan leda till negativa attityder till invandring (Eberl et al., 2018). Även om skildringar av invandring i värdlandets media inte nödvändigtvis alltid är korrekta, har de sammantaget en avgörande roll i att utforma inföddas attityder (King & Wood, 2013).

Uppfattningar om vissa typer av egenskaper tycks vara mer ingående än en ingrupps- kontra utgruppsindelning. Till exempel har tidigare forskning visat att människor kan ha antaganden om andra individers sexuella självsäkerhet baserat på deras etniska bakgrund (Ghavami & Peplau, 2013). Walldén et al. (2022) bad finska vuxna att uppskatta hur aktivt män och kvinnor med olika etniska ursprung (finska, egyptiska, palestinska, thailändska och vietnamesiska) söker efter sexpartner. De fann att medan finska män uppskattade att män från Mellanöstern var de som mest aktivt letade efter sexpartner, uppskattade finska kvinnor att finska män var mest aktiva när det gällde att leta efter sexpartner.

Intrasexuellt tävling är vanligtvis hårdare bland män än bland kvinnor (Trivers, 1972). Enligt Trivers (1972) är kvinnor i allmänhet mer selektiva när det gäller sexpartner eftersom den minsta nödvändiga insatsen i föräldraskap är högre än för män, och detta minskar intrasexuellt tävling mellan kvinnor. Teorin om social dominans antyder att konkurrens om sexuella partner är en typ av resurskonflikt som är särskilt sannolik att uppstå mellan infödda och invandrade män (Dancygier et al., 2019). En annan teori baserad på ett evolutionärt förhållningssätt och relevant i sammanhanget, den så kallade hypotesen om manliga krigare (*the male warrior hypothesis*), föreslår att mäns psykologi har formats av konkurrens som pågår mellan olika grupper för att skaffa och skydda reproduktiva resurser (VanVugt, 2007). Hypotesen antyder att könsspecifika selektiva påtryckningar å ena sidan har gynnat

samarbete mellan medlemmarna i den egna gruppen och och å andra sidan förstärkt fientlighet mot utomstående.

Uppfattningar om den egna livssituationen kan också förklara en del av den individuella variationen i anti-immigrationstendenser. Antfolk et al. (2018) fann att individer med lägre självuppskattat partnervärde rapporterade mer negativa attityder till invandrare än individer med högre partnervärde. Partnervärde består av de individuella egenskaper som påverkar förmågan att hitta och behålla partners (Waynforth, 2001).

Vidare har låg partnertillgång visat sig vara associerad med negativ affekt som en reaktion på svårigheter att hitta partner (Walldén et al., 2020). Partnertillgång syftar på frekvensen av möten med potentiella partner samt frekvensen av upplevda möjligheter att engagera sig med potentiella partner (Walldén et al., 2020). Tillgången till partner påverkas dock inte bara av individuella egenskaper (dvs. partnervärde) utan också av intrasexuell tävlan och sociala omständigheter, såsom hur många potentiella partner man träffar på en genomsnittlig dag (Walldén et al., 2020).

Enligt Antfolk et al. (2018) kan invandring öka den upplevda tävlan om partner, vilket negativt påverkar den upplevda partnertillgången hos infödda individer med lågt partnervärde. De infödda männen – särskilt män med låg partnertillgång och partnervärde som uppskattar att invandringen till största delen består av andra män – kan ha mer anti-immigrationsstendenser än andra infödda män. Detta kan bero på att de infödda männen upplever de invandrande männen som ett hot mot sin partnertillgång.

Studiens syfte

Denna studie bidrar till en förbättrad förståelse av sambanden mellan inföddas uppfattning om demografiska egenskaper – såsom ålder, kön och geografisk ursprung – hos invandrare och inföddas anti-immigrationstendenser. Huvudsyftet med denna studie var att undersöka a) om infödda finska mäns uppfattningar om invandrares demografiska särdrag är förknippade med deras anti-immigrationstendenser och b) om de möjliga sambanden modereras av partnertillgång eller partnervärde. För att studera dessa frågor formulerade jag fem hypoteser baserade på teorin om intrasexuell tävlan och anti-immigrationstendense som presenteras av Antfolk et al. (2018). Teorin antyder att variationen i anti-immigrationstendenser delvis kan tillskrivas invandrarnas potentiella roll som konkurrenter om lokala reproduktiva partner.

Jag testade följande fem hypoteser:

1) De infödda män, som uppskattar att invandringen huvudsakligen (mot i mindre grad) består av andra män, har mer anti-immigrationstendenser.

- 2) De infödda män som uppskattar att invandringen huvudsakligen (mot i mindre grad) består av individer i en reproduktivt aktiv ålder (18–44 år) har mer anti-immigrationstendenser.
- 3) De infödda män som bedömer att sökandet efter en ny partner är den främsta orsaken till att migrera till Finland för en större andel invandrare än svarsmedianen har mer anti-immigrationstendenser.
- 4) De infödda män som uppskattar att antalet invandrare till Finland är högre än svarsmedianen har mer anti-immigrationstendenser.
- 5) De infödda män som uppskattar att invandringen främst (mot i mindre grad) består av individer från Mellanöstern har mera anti-immigrationstendenser.

Slutligen studerade jag om det samband som föreslås av varje hypotes var starkare för män med låg partnertillgång eller partnervärde.

Metod

Denna studie erhöll tillstånd av Fakulteten för humaniora, psykologi och logopedi vid Åbo Akademi och av den etiska granskningsnämnden vid Åbo Akademi före datainsamlingen påbörjades. Jag samlade in samplet genom en webbenkät. Infödda finska vuxna (18 år eller äldre) som var bosatta i Finland när de besvarade frågeformuläret var berättigade att delta i denna studie. Det slutgiltiga samplet bestod av 132 respondenter, vilka rekryterades via sociala medier och diskussionsforum på internet. Av personerna som besvarade enkäten var 68 män, 64 kvinnor och två rapporterade annat kön. De sistnämnda två respondenterna exkluderades då urvalsstorleken inte var tillräcklig för att utföra analyser. Respondenternas ålder varierade från 18 till 79. Eftersom jag förväntade mig att mina hypoteser främst skulle gälla män, studerade jag data från 64 kvinnliga respondenter enbart explorativt.

I enkäten samlade jag in följande demografiska uppgifter från respondenterna: ålder, hemkommun, kön, relationsstatus, sexuell läggning, utbildningsnivå och inkomstnivå. Jag bad sedan respondenterna att uppskatta olika demografiska egenskaper hos individer som invandrar till Finland genom att ge uppskattningar av ålder, kön, geografiskt ursprung, huvudorsaken till att migrera till Finland samt antalet invandrare som anlänt till Finland 2019, 2020 och 2021. Därtill inkluderade jag mått som mäter respondenternas partnertillgång, partnervärde och anti-immigrationstendenser i enkäten och använde resultaten i den statistiska analysen.

Jag utförde först beskrivande analyser med envägs ANOVA för att jämföra olika demografiska aspekter mellan manliga och kvinnliga respondenter. För att studera varje hypotes 1–5 utförde jag en tvåvägs ANOVA och genomförde analyserna separat för män och kvinnor. De oberoende variablerna i tvåvägs ANOVA, dvs. respondenternas uppskattningar

av olika demografiska egenskaper hos invandrarerna, dikotomerades genom dummy-kodning för att förenkla tolkning och presentation av resultat. För att testa om partnertillgång och partnervärde modererade sambandet mellan de oberoende variablerna i hypoteserna 1–5 och anti-immigrationstendenser, utförde jag moderationsanalyser med linjär regression för data från manliga respondenter.

För att testa hypotes 1) utförde jag analyser för att studera om de infödda männen som uppskattade att mer än hälften av invandrarna till Finland var män rapporterade mer anti-immigrationstendenser än de infödda männen, som uppskattade att hälften eller mindre än hälften av invandrarna till Finland var män.

För att testa hypotes 2) utförde jag analyser för att studera om de infödda männen som uppskattade att mer än hälften av invandrarna till Finland var mellan 18 och 44 år rapporterade mer anti-immigrationstendenser än andra manliga respondenter.

För att testa hypotes 3) utförde jag analyser för att studera om de infödda männen som uppskattade att det att söka en ny partner var den främsta orsaken till att migrera till Finland för en större andel invandrare än svarsmedianen rapporterade mer anti-immigrationstendenser än andra manliga respondenter.

För att testa hypotes 4) utförde jag analyser för att studera om de infödda männen som uppskattade att antalet invandrare till Finland var högre än svarsmedianen rapporterade mer anti-immigrationstendenser än andra manliga respondenter.

För att testa hypotes 5) utförde jag analyser för att studera om de infödda männen, som uppskattade att invandringen huvudsakligen bestod av individer från Mellanöstern, rapporterade mer anti-immigrationstendenser än andra manliga respondenter.

Resultat

Jag jämförde först medelvärden och standardavvikelser för ålder samt fördelningarna av relationsstatus, sexuell läggning, utbildning och inkomstkategorier för manliga och kvinnliga respondenter. Jag jämförde sedan medelvärdena och standardavvikelseerna för poäng för anti-immigrationstendenser, poäng för partnertillgång och poäng för partnervärde för manliga och kvinnliga respondenter. Därefter jämförde jag fördelningarna av demografiska uppskattningar gällande invandring till Finland för manliga och kvinnliga respondenter. Det fanns inga statistiskt signifikanta skillnader mellan män och kvinnor.

Resultaten för hypotes 1) visade att de flesta manliga respondenterna uppskattade att de flesta invandrare som anländer till Finland är män. I enlighet med hypotes 1) visade en tvåvägs ANOVA att dessa respondenter rapporterade signifikant mer anti-

immigrationstendenser jämfört med de respondenter som uppskattade att 50 procent eller mindre av invandrarna är män (se Figure 1).

I motsats till hypotes 2) hittade jag ingen skillnad mellan de manliga respondenternas uppskattningar att majoriteten av invandrare som anländer till Finland är mellan 18 år och 44 år och anti-immigrationstendenser jämfört med andra manliga respondenter (se Figure 2).

I motsats till hypotes 3) hittade jag ingen skillnad mellan de manliga respondenternas uppskattningar att det att söka en ny partner var den främsta orsaken till att migrera till Finland för en större andel invandrare än svarsmedianen och anti-immigrationstendenser jämfört med andra manliga respondenter (se Figure 3).

I motsats till hypotes 4) hittade jag ingen skillnad mellan de manliga respondenternas uppskattningar att antalet invandrare till Finland är högre än svarsmedian och anti-immigrationstendenser jämfört med andra manliga respondenter (se Figure 4).

I enlighet med hypotes 5) rapporterade de manliga respondenterna som uppskattade att det vanligaste geografiska ursprunget för invandrare som anlände till Finland var Mellanöstern betydligt mer anti-immigrationstendenser jämfört med de manliga respondenterna som uppskattade att det enskilt vanligaste geografiska ursprunget för invandrare som anlände till Finland var ett annat än Mellanöstern (se Figure 6).

Resultaten gällande hypoteserna 1–5 var liknande för kvinnor, med en betydande skillnad för hypoteserna 1 och 5 och ingen skillnad för hypoteserna 2, 3 och 4.

Jag hittade inga modererande effekter av partnertillgång eller partnervärde på resultaten för de demografiska analyserna för manliga respondenter.

Diskussion

Syftet med denna studie var att undersöka om infödda finska mäns uppfattningar om invandrades demografiska egenskaper är förknippade med anti-immigrationstendenser och om de möjliga sambanden modereras av partnertillgång eller partnervärde. De centrala fynden indikerar att uppfattningar om invandrades demografiska bakgrund kan delvis vara förknippade med infödda mäns anti-immigrationstendenser.

Sammanfattningsvis stöddes två av de fem hypoteserna i denna studie av analyserna och tre förkastades. Resultaten tyder på att finska mäns anti-immigrationstendenser inte är förknippade med invandrarnas ålder, invandringsorsak eller antalet invandrare som anländer till Finland. Istället tyder resultaten på att invandrarnas kön och geografiska ursprung är förknippade med finska mäns anti-immigrationstendenser, så att invandrarnas manliga kön och härkomst från Mellanöstern är förknippade med mer anti-immigrationstendenser. Dessutom förkastades förutsägelser om de modererande effekterna av partnertillgång och

partnervärde, vilket tyder på att finska mäns uppfattning om sin tillgång till partner eller önskvärdhet som partner inte påverkar anti-immigrationstendenser. Detta tyder på att den så kallade hypotesen om manliga krigare (*the male warrior hypothesis*) (VanVugt, 2007), snarare än teorin om intrasexuell tävlan och anti-immigrationstendenser (Antfolk et al., 2018) kan förklara resultaten. Bristen på modererande effekter antyder också att andra faktorer än tävlan om partner kan förklara att specifikt män från Mellanöstern tycks utlösa infödda mäns anti-immigrationstendenser. Upplevd kulturell distans, upplevd sexuell självsäkerhet eller upplevt hot mot kvinnor kan vara sådana förklaringsfaktorer.

Denna studie är, såvitt jag vet, ett banbrytande försök att undersöka samband mellan inföddas uppskattningar av invandrares demografiska egenskaper och anti-immigrationstendenser i samband med intrasexuell tävlan. Studien kopplar samman teorier om intrasexuell tävlan och forskning om hur anti-immigrationstendenser uppstår, och bygger på tidigare rön. Jag anser att dessa egenskaper är styrkorna i denna studie.

Det finns vissa begränsningar att påpeka. För det första, när det gäller grundläggande demografiska egenskaper skiljer sig mitt urval något från den finska befolkningsdemografien som helhet, och detta innebär att resultaten inte kan generaliseras till en nationell nivå utan vissa reservationer. För det andra var respondentbortfallet 46 procent. Jag kanske hade nått en högre slutförandegrad om frågedesignen varit något annorlunda. För det tredje var urvalsstorleken något blygsam. En post hoc effektanalys för tvåvägs ANOVA visade att provstorleken var tillräcklig för att hitta stora effekter, men att ett större urval skulle ha krävts för att hitta medelstora eller små effekter. För det fjärde är hypoteserna kanske inte helt oberoende av varandra. Det är möjligt att vissa respondenter är mer frekvent representerade i grupperna som valts ut genom dummy-kodning än andra. Att undersöka sådana samband föll dock utanför ramen för denna studie.

Framtida studier kunde ställa ytterligare frågor för att fortsätta undersöka om teorin om intrasexuell tävlan och anti-immigrationstendenser som föreslås av Antfolk et al. (2018) kan förklara resultaten från den aktuella studien, eller om några andra teorier verkar ge mer korrekta förklaringar. Ytterligare analys skulle till exempel kunna belysa sambandet mellan respondenternas anti-invandringstendenser och ålder, relationsstatus, sexuell läggning, utbildning och inkomst. Resultat från sådana analyser kunde jämföras med tidigare bevis som tyder på att respondenternas demografiska egenskaper är förknippade med anti-immigrationstendenser. Exempelvis visade Antfolk et al. (2018) att, jämfört med individer med annan relationsstatus, rapporterade ensamstående individer mer negativa attityder till invandrare. Vidare kunde framtida forskning undersöka om riktigheten i respondenternas

uppskattningar av invandrades demografiska egenskaper är förknippad med anti-immigrationstendenser.

Sammanfattningsvis tyder resultaten från denna studie på att infödda finska mäns anti-immigrationstendenser är förknippade med deras uppfattningar om invandrades kön och geografiska ursprung. Finska män som uppskattade att de flesta invandrare till Finland var män rapporterade mer anti-immigrationstendenser än andra manliga respondenter. Finska män som uppskattade att det huvudsakliga geografiska ursprunget för invandrare till Finland var Mellanöstern rapporterade mer anti-immigrationstendenser än andra manliga respondenter. Uppskattningar av invandrades ålder, orsak till invandring eller antal invandrare var inte förknippade med anti-immigrationstendenser. Dessutom modererade inte finska mäns uppfattning om sin tillgång till potentiella reproduktiva partner eller sin egen önskvärdhet som partner sambandet mellan uppfattningar om invandrare och anti-immigrationstendenser. Medan intrasexuell tävlan verkar förklara en del av den individuella variationen i negativa attityder och beteenden gentemot invandrare, verkar även andra faktorer, såsom upplevt kulturellt avstånd och hot från invandrare, ha en nyckelroll.

Ytterligare forskning krävs för att skapa en bättre förståelse av sambanden mellan inföddas uppskattningar av invandrades demografiska egenskaper och anti-immigrationstendenser i samband med intrasexuell tävlan.

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Appendix

Table 1

Questions and Response Options translated to English

| Item Name | Item Block | Question | Response Options |
|--------------------|---|--|--|
| Age | Demographics | Age | 18 – ≥100 |
| | | Are you born in Finland? | Yes, No |
| | | Do you currently reside in Finland? | Yes, No |
| Gender | | Gender | Male, Female, Other |
| Municipality | | Municipality of residence | [Drop-down menu of all Finnish municipalities] |
| Relationship | | Relationship status | Not in a relationship, In a relationship, Other |
| Sexual_orientation | | Sexual orientation | Heterosexual, Homosexual, Bisexual, Other |
| Education | | Education | Basic education, Postsecondary qualification, Upper secondary education, Bachelor's degree, Master's degree, Licentiate degree or doctor's degree, Other |
| Income | | Gross income (EUR per year) | 0–19 999, 20 000–39 999, 40 000–59 999, 60 000–89 999, 90 000–99 999, 100 000–149 999, 150 000– |
| DEM_imm_age | Perceptions of Immigration Demographics | Estimate the age of immigrants who arrive in Finland (percentage of total immigration, 100 % in total) | 0–17 years, 18–24 years, 25–44 years, 45–64 years, 65– years |

| | | | |
|----------------|--------------------------------|--|--|
| DEM_imm_gender | | Estimate the gender of immigrants who arrive in Finland (percentage of total immigration, 100 % in total) | Males, Females, Others |
| DEM_imm_area | | Estimate the geographic origin of immigrants who arrive in Finland (percentage of total immigration, 100 % in total) | Northern America, Latin America and the Caribbean, Northern Europe, Eastern Europe, Africa, Southern and Western Europe, The Middle East, Asia, Australia and Oceania |
| DEM_imm_reason | | Estimate the main reason to immigrate for immigrants who arrive in Finland (percentage of total immigration, 100 % in total) | Asylum seeker / Refugee, Reasons related to work/studies, Reunion with one's partner/family, Seeking a new partner, Improved standard of living, Other than above mentioned reason |
| DEM_imm_2019 | | Estimated number of immigrants to Finland in 2019 | [Numeric answer] |
| DEM_imm_2020 | | Estimated number of immigrants to Finland in 2020 | [Numeric answer] |
| DEM_imm_2021 | | Estimated number of immigrants to Finland in 2021 | [Numeric answer] |
| MAS_E_num | Mate Access; Encounters (E) | How many potential partners do you meet on an average day? Do not count people you only meet on the internet. | 0, 1-3, 4-9, 10-19, 20-49, 50-99, 100 or more |
| MAS_E_talk | | How many potential partners do you talk to on an average day? Do not count people you only meet on the internet. | 0, 1-3, 4-9, 10-19, 20-49, 50-99, 100 or more |
| MAS_E_sexself | | Think about the people you talk to on an average day. How many of them are you sexually interested in? | 0, 1-3, 4-9, 10-19, 20-49, 50-99, 100 or more |

| | | | |
|------------------|--|--|---|
| MAS_E_we_romtalk | | How many potential romantic partners do you talk to during a normal weekend? | 0, 1-3, 4-9, 10-19, 20-49, 50-99, 100 or more |
| MAS_E_we_sextalk | | How many potential sex partners do you talk to during a normal weekend? | 0, 1-3, 4-9, 10-19, 20-49, 50-99, 100 or more |
| MAS_P_meetwant | Mate Access; Perceived Possibilities (P) | In your everyday life, do you meet as many potential partners as you want to? | Not nearly as many as I want, Fewer than I want, Close to as many as I want, Yes, as many as I want |
| MAS_P_rominvwant | | Do you receive as many romantic invitations (e.g., someone asking you out) as you would desire (or even more than you would desire)? | Not nearly as many as I want, Fewer than I want, Close to as many as I want, Yes, as many as I want |
| MAS_P_w_sexfind | | If you were looking for a new partner to have sex with, how would you estimate your chances to do so within a week? | Very low, A bit lower than average, Average, A bit higher than average, Very high |
| MAS_P_m_romfind | | If you were looking for a new partner to have a romantic relationship with, how would you estimate your chances to do so within a month? | Very low, A bit lower than average, Average, A bit higher than average, Very high |
| MAS_P_sextime | | If you were looking for a new partner to have sex with, in what time do you think it would be realistic for you to find one? | Within a week, Within a month, Within 6 months, More than 6 months |
| MAS_P_sexcompr | | Compared to people of the same age and gender as you, how many sex partners do you think you could have if you tried to? | Many fewer, A bit fewer, As many, A bit more, Many more |
| MAS_P_sexinvintr | | How often do you receive sexual invitations from persons you might be interested in? | Never, Quite seldom, Sometimes, Quite often, Almost daily |
| MVS1 | Mate Value | Overall, how would you rate your level of desirability as a partner on the following scale? | 1 Extremely undesirable – 9 Extremely desirable |

| | | | |
|--------------|------------------------|---|--|
| MVS2 | | Overall, how would members of the opposite sex rate your level of desirability as a partner on the following scale? | 1 Extremely undesirable – 9 Extremely desirable |
| MVS3 | | Overall, how do you believe you compare to other people in desirability as a partner on the following scale? | Very much lower than average, Lower than average, Slightly lower than average, Average, Slightly higher than average, Higher than average, Very much higher than average |
| MVS4 | | Overall, how good of a catch are you? | Very bad catch, Bad catch, Somewhat bad of a catch, Average catch, Somewhat good of a catch, Good catch, Very good catch |
| AIT_buy | Immigration Tendencies | I could buy services from an immigrant. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_neighbor | | I would not like having an immigrant as my neighbor. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_rent | | If I were to rent out an apartment, I would refuse renting it to an immigrant. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_hire | | If I were to hire someone, I would refuse hiring a qualified immigrant. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |

| | | |
|------------------|--|--|
| AIT_goodpeople | Immigrants are good people. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_badinfluence | I think that immigrants impact my country negatively. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_thankful | Immigrants should show they are grateful for living in this country. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_vote | I would vote against increased immigration to Finland. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_dislike | I dislike immigrants. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_host | My country should host more immigrants. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_cooperate | I would co-operate with an immigrant at work or on a school project. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_write | I could write something hostile about immigrants online. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |

| | | |
|----------------|---|--|
| AIT_derogatory | I could use derogatory language against an immigrant. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_welcome | Immigrants are welcome in my home country. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_spendtime | I would not mind spending time with an immigrant. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |
| AIT_threat | Immigrants are a threat to my home country. | Strongly disagree, Somewhat disagree, Do not agree or disagree, Somewhat agree, Strongly agree |

PRESSMEDDELANDE

Antaganden om att män från Mellanöstern immigrerar till Finland verkar vara förknippade med negativa attityder och beteenden mot invandrare, Pro gradu-avhandling i psykologi Fakulteten för humaniora, psykologi och teologi, Åbo Akademi

Resultaten från en pro gradu-avhandling i psykologi vid Åbo Akademi tyder på att infödda finska män, som antar att främst män eller individer från Mellanöstern invandrar till Finland, uppvisar mer negativa attityder och beteenden mot invandrare än andra infödda finska män. Däremot var infödda finska mäns uppskattningar om invandrarnas ålder, invandringsorsak eller antalet invandrare inte förknippade med negativa attityder och beteenden mot invandrare. Vidare hittades ingen inverkan av infödda finska mäns uppfattningar om sin tillgång till potentiella partner eller om sin önskvärdhet som partner på de ovannämnda resultaten. Dessa resultat tyder på att intrasexuell tävlan, eller tävlan om reproduktiva resurser, inte ensam kan förklara variationen i infödda finska mäns negativa attityder och beteenden mot invandrare, utan att även andra förklaringar är viktiga. Syftet med studien var att undersöka om intrasexuell tävlan kan förklara variation i infödda finska mäns negativa attityder och beteenden mot invandrare. I studien utreddes om infödda finska mäns uppfattningar om invandrades demografiska egenskaper var förknippade med negativa attityder och beteenden mot invandrare, samt om de möjliga sambanden påverkades av infödda finska mäns uppfattningar om sin tillgång till potentiella partner eller om sin egen önskvärdhet som partner. Studien utfördes i form av en webbenkät. Sammanlagt 132 personer (varav 68 män) i åldern 18 till 79 deltog i studien. Framtida studier kunde undersöka sambanden mellan infödda mäns demografiska uppfattningar om invandrare och negativa attityder och beteenden mot invandrare genom ett större sampel för att kunna fastställa eller utmana resultaten från denna studie.

Avhandlingen utfördes av Katri Björkvall under handledning av PsM Catharina Walldén och PsD Annika Gunst PsD, docent i psykologi.

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