Tinder study:
‘The influence of ethnicity on going on a date in a Tinder-like setting’

Attitudes towards dating interracially: how do ethnically defining appearances and names influence the likelihood of going on a date through an online mobile dating platform such as Tinder?

Vrije Universiteit Amsterdam – Faculty of Social Sciences

April 2019

Communication Science Master’s Thesis

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Abstract

The online dating application Tinder is increasingly popular among individuals (Sumter, Vandenbosch, & Ligtenberg, 2017). Nevertheless, no European study has yet investigated the influence of coming across a profile with an ethnic appearance and/or name on the likelihood of going on a date in an online dating setting such as Tinder. Therefore, this study aims to investigate the influence of ethnicity on the likelihood of dating. Interracial dating seems to occur more often due to the increase of immigration and a mixed population (Bialik, 2017). However, several social studies show that the willingness to date interracially is significantly lower than the willingness to date intra-racially (Harris & Kalbfleisch, 2000; Hwang, 2012; Levin, Taylor, & Claudle, 2007; Liu, Campbell, & Condie, 1995; Yancey, 2002). The current study is one of the first European studies investigating interracial dating behaviour in an experimental 2x3 setting (n = 331), with conditions being the ethnicity of the presented Tinder-like profile (white/non-white) and name (no name/Dutch name/ Non-Dutch name). Because the sample consists of mainly Caucasian respondents, the applicability of this research will be for those identifying themselves as Western. The results show that both white female and white male Tinder-like profiles seem to be the more favourable group to date. Non-white profiles in combination with a non-Dutch name seem to be the least favourable group to date. These results are in line with earlier and mainly American studies, indicating that the willingness to date interracially is lower than the willingness to date intra-racially and whites are the most favourable group to date (Harris & Kalbfleisch, 2000; Hwang, 2012; Levin, Taylor, & Claudle, 2007; Liu, Campbell, & Condie, 1995; Yancey, 2002). The results furthermore show that this discrepancy in the willingness to date white versus non-white profiles is more applicable for Tinder users compared to non-users. Living in an era where online dating has evolved to a mainstream social practice with more than 10 million active users a day, it underscores the importance of this applicable social study.

Keywords: intra/inter-racial dating, interracial relationships, Tinder, online dating, ethnic background, (foreign) appearance, (foreign) names, attractiveness, Tinder motivations, ethnicity.
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Introduction

With over 500 inhabitants per square kilometre, the Netherlands is one of the most densely populated countries in the world. It is not only densely populated, but also home to a great variety of inhabitants with different ethnic backgrounds, cultures or religions (CBS, 2018). The Netherlands is rapidly diversifying, with ethnic minorities sprouting all over the country. There are currently over 256 different nationalities and more than 8 different registered religions in the Netherlands (CBS, 2018). It is predicted that due to immigration, the number of foreigners will continue to rise; by the time of 2060 one third of the inhabitants in the Netherlands will have a non-Dutch background (CBS, 2014). This diverse population emphasizes the need for a better understanding of social behaviour and inter- and intra-racial relationships, as it facilitates meeting people of different ethnicities in a new online dating era (Martin, Bradfort, Drzewiecka, & Chitgopek, 2003).

Interracial dating, also known as interethnic dating, is the practice of dating between partners who are members of different ethnic groups (Harris & Kalbfleisch, 2000). According to Bialik (2017), interracial dating occurs more often within a context of increased immigration. It may therefor seem evident that with ethnic diversities rising, romantic relations built a bridge to mingle backgrounds, cultures and religions between different minorities (Bialik, 2017). Nevertheless, several social studies show that the willingness to date interracially is still significantly lower than the willingness to date intra-racially (Harris & Kalbfleisch, 2000; Hwang, 2012; Levin et al., 2007; Liu et al., 1995; Yancey, 2002). This could be explained by several social and cultural factors, such as the fact that until 1967 interracial marriage and miscegenation was still illegal in many parts of the world (Pascoe, 1996). Over the course of time, many social scientists aimed to understand these social and cultural factors influencing intra- and interracially dating through the lens of many dispositional factors such as; religion (Yancey, 2002), the Social Identity Theory (Tjafel, 1981), peer groups (Levin et al., 2007), interracial dating experience (Liu et al., 1995), motivations (Buss & Schmidt, 1993) and historical background (Hwang, 2012; Pascoe, 1996). Based on these studies it is safe to conclude that some individuals appear to show preferences towards same-race partners when they are looking for a date.

Remarkably, most studies on interracial dating are conducted in the USA and European studies seem to be lacking. This makes it hard to generalize above findings to European demographics, let alone the Netherlands specifically. Only a few studies exist that study interracial relationships with a European or Dutch sample (Potârcâ & Mills, 2015; Zantvliet, Kalmijn, & Verbakel, 2015). These studies show that European individuals prefer
to date same-race partners and that there is a hierarchy of preferences both among natives and minority groups (Potârcâ & Mills, 2015). The Netherlands is a country well known for its comprehensive historical and cultural history, and in the last decades it has created a climate in which high-level discussions are held about the ethics and aesthetics of racist behaviour (Kuipers, 2003). This open climate has resulted in numerous memorable moments, with the Netherlands being the first country to have a reporting center for online discrimination and to legalize gay marriage (Kuipers, 2003; Amnesty International, 2018). However, even in the Netherlands racial relationships are a delicate matter, as for instance exemplified in the fierce annual recurring ‘zwartenpietendebat’ - a debate about an old Dutch tradition involving black helpers and a White Saint Nicholas bringing presents to children – emphasizing the difficulty of approaching this matter and the importance of studying racial relationships.

The purpose of this study is to investigate interracial dating behaviour of individuals in the Netherlands, through the use of an online dating setting such as Tinder. The online dating landscape provides us with the unique opportunity to monitor changing cultural norms imbedded by technology-mediated relationships (Hobbs, Owen, & Gerber, 2017). It helps us to gain insights into aspects of online intercultural behaviour wherein people first meet online and then offline. Tinder is a Location-Based real-time dating app (LBTD) and a commonly used tool to reinforce dating life (Sumter, Vandenbosch, & Ligtenberg, 2017). This study employed a questionnaire with fake Tinder profiles to acquire a Tinder-like setting. This enables us to test a set of dispositional factors in a highly accurate way. Even though this topic has been studied several times (Buunk & Dijkstra, 2017; Carpenter & McEwan, 2016; Hwang, 2013; Sumpter et al., 2017), this research is one of the first European studies investigating interracial dating behaviour in an experimental setting. Furthermore, this research includes possible moderating relationships such as one’s motivation for using Tinder and the level of contact with different ethnic groups. The experiment employed a within-subjects design (2x3), with condition variables being the ethnicity of the presented stimuli (white/non-white) and name (no name/Dutch name/non-Dutch name). By exploring associations between these variables and the likelihood of dating, I aim to answer the following research question: What is the effect of an ethnic defining appearance and ethnic name on the likelihood of going on a date in an online dating setting such as Tinder?

There are 8 hypotheses formulated to answer this question. The next section will discuss these hypotheses together with the theoretical considerations and a literature review. The subsequent sections discuss the justification and description of the methods, the conclusion and the implications for future research.
Theory

*Intercultural relationships and dating interracially*

Interracial dating has an extensive history, and in order to answer the research question it is important to first clarifying some facts of interracial and intra-racial dating and the development in recent years. Dating interracially is the act of dating between two or more members who are from different ethnic groups. Dating intra-racially is the act of dating between two or more members of the same ethnic group (Bialik, 2017). The number of intercultural relationships is increasing by the year, but there is still some resistance to the idea of interracial relationships (Bialik, 2017; Buunk & Dijkstra, 2017; Levin et al., 2007). An American study from Liu and colleagues (1995) showed that 65% of the respondents had at least one interracial dating experience. In 2002 the percentage of interracial marriages in the US was however only 2.9% (Joyner & Kao, 2005). This number increased profoundly in the last decade to a respective 17% in 2015 (Bialik, 2017). According to the research of Pew Research Center on interracial relationships in the US, a growing share of adults claim interracial marriage is a good thing for the American society (Bialik, 2015). Americans today also seem less likely to oppose a close relative marrying someone with a different ethnicity. In 2015, only 10% of the total US population would not engage in interracial marriage, whereas this percentage was 31% in 2000. The most drastic change occurred among the non-blacks. In 1990, 63% of the US population was against interracial marriage. In 2015, this number dropped below 14% (Bialik, 2015). Accordingly, men tend to be more open to dating members of other ethnic groups than women (Hwang, 2013; Tucker & Mitchell-Kernan, 1995). A study among online daters showed that women were twice as inclined to have a partner of the same ethnicity than men (Mendelsohn, Shaw-Taylor, Fiore, & Cheshire, 2014). Additionally, intra-racial dating seems to be more prevalent under young students of multiple ethnicities in comparison to inter-racial dating. When inter-racial dating does occur, whites seem to be favoured compared to other ethnicities (Levin et al., 2007).

Remarkably, most of these studies on interracial dating are conducted in the US and mainly amongst college students, which makes it hard to generalize the findings. What about Europeans? How about the Dutch? It is hard to conclude whether these results are applicable to nations with completely different racial and immigration patterns. One of the firsts to study European racial dating preferences in an online setting are sociologists Potârcâ and Mills (2015). They showed that European individuals also prefer to date intra-racial compared to interracial (Potârcâ & Mills, 2015). However, their results also show that individuals in heterogeneous countries (countries with a high amount of foreign-born residents) have a
higher preference to date interracially than homogeneous countries. These finding are in line with earlier American research (Harris & Kalbfleisch, 2000; Hwang, 2012; Levin et al., 2007; Liu et al., 1995). Another European study shows similar results, indicating that the more conservative immigrants are less likely to date a native partner (Zantvliet et al., 2015). Based on these studies it is safe to conclude that some individuals show preferences towards same-race partners when looking for a relationship or date (Bialik, 2017; Buunk & Dijkstra, 2017; Levin et al., 2007).

**Historical background**

To provide possible explanations for this skewed tendency, one has to start examining the historical evolution of interracial dating and race. Throughout history, whites have been associated with imperialism and colonization of aboriginals and natives that consisted of mainly black people. Initially, race was connected to social status. Special laws were created to ban interracial marriage to protect the ‘purity’ of the whites and preventing mixing with people with colour (Hwang, 2012). Evolutionary theories of mate selection hypothesize that women may be less willing to date interracially compared to men (Buss & Schmidt, 1993). This is because of the fear of decrease of social status and social disapproval by friends and family, as men tend to focus more on fertility and beauty (Buss & Schmidt, 1993). A study by Miller, Oslon and Fazio (2004) showed consistent results with these evolutionary and social structural theories of mate selection. Their results indicate that white women dating minority men, received the greatest amount of social disapproval and are hence less inclined to date interracially. The Social Exchange Theory can help to explain these dating choices, as it indicates that human relationships and choices are done by rational motivations as people make cost-benefit analyses (Homans, 1958). To give an example: a wealthy associated white man who is less attractive exchanges his wealth and richness to be with an attractive but less wealthy non-white woman. Unless there is some form of a trade, a social exchange, those of ‘higher’ racial status are less likely to trade down (Hwang, 2013). This can help to explain some of these skewed patterns in intra- and interracially dating, as whites are still labelled by some with attributes of these ‘higher’ social statuses (Hwang, 2013). In sum, ethnicity can be seen as a social construct that is intertwined with social status as a result of a history of racism, colonialism and slavery.

Another important theory that could explain dating preferences is the Social Identity Theory (Tjafel, 1981; Tjafel & Turner, 1986). According to the Social Identity Theory, an identity can be formed through the process of self-categorization in beliefs, values or cultural
embedded norms, explaining the very root of in-group and out-group behaviour. (Stets & Burke, 2000). In identity theories this process is called identification (McCall & Simmons, 1978). A social identity is a person’s understanding of belonging to a social group (in-group) of individuals who view themselves as members of the same social category or hold a similar social identification (Abrams & Hogg, 1988; Stets & Burke, 2000). Self-categorization can lead to accentuation of the perceived similarities between the in-group members and the accentuation of the perceived differences with people from the out-group members. An individual’s race, and everything that is intertwined with it like heritage, customs or skin colour, are examples of these characteristics that label people in the in- or out-group. As Abrams and Hogg (1988) point out, social categories in which individuals place themselves are part of a structured society in contrasting categories. For example blacks versus whites. Each category has more or less prestige, status and so on (Abrams & Hogg, 1988; Buss & Schmidt, 1993). As individuals, we are born in a social structured society, and people derive their identity or self-categorization through social categories to which they belong (Abrams & Hogg, 1988). In-group identification can explain possible preferences to date people of the same ethnicity, but this does not automatically mean that they have hostile attitudes towards out-groups. Findings from both cross-cultural research and laboratory experiments showed that in-group bias and intergroup discrimination is motivated by preferential treatment of in-group members rather than negative attitudes towards in-groups (Brewer, 1999).

In sum, it can be argued that the combined concepts of the Social Exchange Theory, the Social Identity Theory and the intertwined history provide possible explanations for this tendency to date intra-racially. It furthermore helps to explain why whites are possibly the most favourable (out)group to date, as this can be a result of in- and out-group behaviour what is intertwined with early history.

**Online dating**

Not only the composition of the population is rapidly changing, the media landscape in which they operate is changing accordingly. Before online dating was born, people had to go out and mingle to look for social encounters, whereas nowadays people can meet other people simply by using their phone or laptop. With the help of dating websites and applications (*apps*), people can meet potential partners online. There are more than 1500 online dating websites and apps to choose from (Xavier, 2016). A popular type of online dating is based on online dating apps like ‘Tinder’, ‘Happn’ and ‘Grinder’. These apps locate nearby people who are looking for dates. These apps are called Location-Based Real-Time Dating apps
A recent American study showed that the online dating industry is estimated to be worth 2 billion dollars, with one out of ten Americans reporting that they had used some form of online dating. A quarter of these people found either a partner or a spouse by doing so (Wiederhold, 2015).

Online dating has some unique properties compared to normal dating. Online dating creates new opportunities to meet more diverse potential partners, giving users the opportunity to communicate with individuals with a broader range of different ethnicities and cultural heritage (Wiederhold, 2015; Ortega & Hergovich, 2017). Also, online dating can be a relatively nonthreatening way for some people to initiate contact compared to meeting in public (Carpenter & McEwan, 2016). In addition, online dating provides the option to screen out people in order to create a possible match based on preferences and demographics, enhancing the efficiency of online dating (Wiederhold, 2015).

The amount of interracial and interreligious couples has increased substantially with the rise of the Internet and online dating (Thomas, 2018). This can be a result of the Internet bringing people together from different social groups, resulting in a blend of multiple groups. Online dating has the power to substantially weaken social or even demographical boundaries, as people are confronted with more potential partners of different ethnicities. However, it is argued that meeting people online can also trigger the activation of social boundaries, creating more homogeneous couples (Thomas, 2018). The Social Identity Theory helps to explain this, as online dating can facilitate more in-group and out-group behaviour (Tjafel, 1981; Tjafel & Turner, 1986).

In sum, it can be argued that although intercultural dating occurs more often, intragroup dating still dominates the (online) dating field and whites are the most favourable group to date (Harris & Kalbfleisch, 2000; Hwang, 2012; Levin et al., 2007; Liu, et al., 1995; Yancey, 2002). Considering the evidence, the following hypotheses are constructed:

**H1:** Individuals are more willing to choose a Tinder profile for a date that has the same ethnicity as theirs compared to a Tinder profile that has different ethnicity.

**H2:** Individuals are more willing to choose a white Tinder profile for a date compared to a non-white Tinder profile.
It is expected that different results yield between dating app users and non-users. Online dating possibly facilitates more in-group and out-group behaviour due to unique properties of dating apps, like screening a possible partner on (ethnic) preferences (Wiederhold, 2015; Tjafel & Turner, 1986). Hence, additional analyses will be conducted for every hypothesis in this study to compare the behaviour of users and non-users. This research focuses on the online dating app ‘Tinder’. This app is connected to the user’s Facebook profile, giving users the option to select photos they wish to show. The user is presented with a number of photos from someone else’s profile, and can like (swipe right) or dislike (swipe right) other users. The app allows users to chat with each other if both parties like each other. This is called a match. This research uses a Tinder-like setting and not the real app, what will be explained in the method section.

Motivations of use

To provide possible explanations for the preferences in dating white ethnicities and dating interracially, it is recommended to look into different motivations for using Tinder. The opinions about the use of LBRTD apps like Tinder vary greatly. Some media call Tinder the hook-up app, stating that it facilitates casual hook-ups and low superficial standards (Sales, 2015; Thompson, 2015). Some even name it the dating apocalypse, indicating that Tinder is the start of a new dawn without any romance left in this world (Ayers, 2014). Others are less critical and see Tinder as an opportunity for young adults to initiate romantic relationships, especially for those who feel more secure by communicating in an online environment compared to face to face (Amichai-Hamburger, Wainapel & Fox, 2002).

The idea that Tinder users have romantic motives for using the app rather than to casually hook-up, is substantiated by a recent study from Sumpter and colleagues (2017). This study among Dutch young adults differentiated six primary motivations for Tinder use: love, casual sex, ease of communications, self-worth validation, trill of excitement and trendiness. The results showed that the motivation of love appeared to be a stronger motivation for women than casual sex. This indicates that Tinder should not only be seen as a casual hook-up platform, but rather as a platform that users employ with different motivations (Sumpter et al., 2017). These different motivations can be explained by the Uses and Gratifications Theory (U&G). This theory indicates that individuals use mass media to fulfil specific desires or needs (Katz, 1959; Katz, Blumler, & Gurevitch, 1973). The theory was originally developed to study mass media, but seems applicable for understanding the use of social media by individuals (Foregger, 2008; Ryan et al., 2014; Shao, 2009; Urista, Dong, & Day,
From this perspective, literature suggested that social, physical and psychosocial gratifications can be obtained by the use of online dating apps (Valkenburg & Peter, 2007; Van De Wiele & Tong, 2014). The social gratifications sought by using dating apps relates to the need for establishing new connections and the potential of finding a romantic partner (Hart, 2015). Prior research suggests that dating apps can help to fulfil these developmental needs (Van De Wiele & Tong, 2014). Physical gratifications relate to the need for sexual pleasure that is commonly present during young adulthood, which is the target group for Tinder (Diamond, 2004; Sumpter, 2017). These gratifications are conclusive with the previously mentioned statements, that Tinder is a hook-up app (Sales, 2015; Thompson, 2015). It seems that the amount of long-term relationships and marriages that started from meeting in an online dating setting is rising each year (Thomas, 2018). This increasing number consists of more intercultural relationships within each year (Smith & Anderson, 2015; Troy, Lewis-Smith, & Laurenceau, 2006). This indicates that motivations for using Tinder are important determinants to consider when studying online dating behaviour. It is expected that individuals who are interested in using Tinder for long-term relationships will have different requirements that candidates have to meet, compared to individuals who use Tinder for a casual hook-up. Factors such as personality, intelligence, culture, religion, norms and values can become increasingly important when looking for a potential long-term mate, whereas attractiveness and sexual attraction can be more important for casual hook-up dating (Garcia, 2008; Stewart, Stinnett & Rosenfeld, 2000). It is expected that individuals who are more driven by physical gratifications instead of finding a long-term relationship, are more willing to date interracially. This is because they put less weight in the possible objections of interracial relationships (Troy et al., 2006). Some studies show that individuals are indeed more likely to date interracially when they are not looking for something serious (Joyner & Kao, 2005; Laumann, Gagnon, Michael, & Michaels, 1994).

In sum, it is expected that Tinder users who use Tinder for the long-term are more focussed on the possible complications that could correlate with interracial relations and are hence less inclined to date interracially (Stewart et al, 2000). To investigate this statement, the following hypothesis is conducted that involves only the Tinder users in this study:

**H3**: Tinder users are more willing to choose a white Tinder profile for a date compared to a non-white Tinder profile. The motivation of using Tinder for the long-term positively moderates this relationship.
Diversity of backgrounds

Another important determinant for the willingness to date interracially and intraracially is an individual’s background, as can be explained by using the Proximity Theory (Allport, 1954). This theory indicates that individuals with more intergroup contact have reduced levels of prejudice when certain conditions are met (Kahn & McGayghey, 1977; Miller et al. 2006). This may be linked to the Social Identity Theory that is earlier mentioned, whereas people with more contact with out-group members may feel less inclined to self-categorization and hence less hostile towards the classifications given to them (Tjafel, 1981; Tjafel & Turner, 1986). This is also well aligned with both of the earlier mentioned European studies of Potârcâ and Mills (2015) and Zantvliet and colleagues (2015). It indicates that anti-immigrant behaviour is stronger related to in-group preferences among natives, and conservative immigrant adolescents are less likely to date interracially (Zantvliet et al., 2015; Potârcâ & Mills, 2015). In addition, meeting individuals with different ethnicities at schools and neighbourhoods can be important factors for explaining partner choice of varying ethnicities (Zantvliet et al., 2015). Some studies found that increased contact with members of different ethnic groups in settings such as neighbourhoods or schools can lead to increased interracial dating (Fujino, 1997; Yancey, 2002). A possible explanation is found in the individual’s background or family. The results from a Dutch study showed that more than 28% of the variation in ethnic attitudes can be ascribed directly to someone’s family, showing that the transmission of attitudes and cultural positions are important indicators for attitudes towards intercultural relationships (Huijnk & Liefbroer, 2012). A study by Mok (1999) showed different findings, as their results show that the ethnic density of where one lives has almost no influence on the level of interracial dating and that parental objection is the main predictor for the lack of interracial dating (Mok, 1999).

In sum, it can be argued that individuals who engage more with people of different ethnicities are more likely to date interracially and less inclined to date intra-racial (Huijnk & Liefbroer, 2012). Taken this evidence into consideration, together with the importance to fill in this research gap of inconclusive results, the following hypothesis is conducted:

H4: Individuals are more willing to choose a white Tinder profile for a date compared to a non-white Tinder profile. The level of contact with different ethnic groups negatively moderates this relationship.
Names and racial signalling

Elaborating on the short historical lesson on dating in the beginning of this chapter, the simple function of a name should be taken into consideration accordingly. Commenting on the importance of names, Bosmajian (1974) writes, “An individual has no definition, no validity for himself, without a name. His name is his badge of individuality, the means whereby he identifies himself and enters upon a truly subjective existence” (p. 3).

Names can provide individuals with a lot of information. In some cases, it can give a hint of the person’s sex, a religious affiliation, social position and ethnic background (Daniel & Daniel, 1998; Dinur, Beir-Hallahmi, & Hofman, 1996). A name itself can be a signal to one’s ethnical background due to different spelling, social backgrounds or religion (Walther, Heide, Hamel, & Shulman, 2009). With online dating apps, individuals know someone by their name before they even meet in person. Since Tinder is directly linked to one’s Facebook account, it is not possible to change or alter a name. When certain information cannot be easily manipulated, like one’s name on Tinder, an observant places greater trust in this information. This is called ‘the warranting principle’ (Walther, Heide, Hamel, & Shulman, 2009). Sometimes intentionally, sometimes unintentionally, people draw conclusions from the limited information they have, which can lead to biased perceptions based on someone’s name.

These biased perceptions can occur because of two prominent characteristics of names. Firstly, names can lead to the activation of stereotyping. Stereotyping can be defined as a category-based cognitive response to another person (Fiske, 1993). It involves prejudice (affect), discrimination (behaviour) and beliefs (cognitions) about an individual based on a particular name. Unfortunately, stereotyping usually involves assumptions that all group members, for instance people with this kind of name, share the same characteristics (Carpusor & Loges, 2006). These assumptions are based on a collection of associations to a set of descriptive characteristics, followed by prejudice (Devine, 1989). Secondly, names can inherit associated expectations that are attached by individuals (Carpusor & Loges, 2006). For example, when someone hears a lot of troubling news about persons named ‘Constance’ in the news, seeing that particular name can trigger an biased association one has with that name. In this particular situation, one would place the other in the out-group by stereotyping. This could lead to feeling less inclined to date interracially (Tajfel, 1970). In sum, a name can be seen as an essential piece of information that provides users with a hint of someone’s heritage and can lead to biased perceptions (Carpusor & Loges, 2006; Walther et al., 2009).
In sum, it can be argued that ethnically defining names can lead to different results when it comes to (online) dating. Due to possible biased perceptions, individuals can be less motivated to date others who have a non-Dutch name due to the activation of stereotyping or the associations that one has with a name (Carpusor & Loges, 2006). Moreover, it is expected that this will be more applicable for Tinder users. As in an online setting such as Tinder, people know one’s name before they meet in person. This gives more weight to this information (Walther et al., 2009). Given this evidence, the following hypothesis is conducted:

**H5: Individuals are more willing to choose a Tinder profile with a Dutch name for a date compared to a Tinder profile with a non-Dutch name.**

It is expected that individuals are more inclined to date white profiles with a Dutch name. This is expected because this would minimum the triggering effect of possible biased perceptions due to an ethnic name (Carpusor & Loges, 2006) or ethnic appearance (Hwang, 2013; Abrams & Hogg, 1988; Buss & Schmidt, 1993). Therefore, the combination of a Dutch name and a white profile can result in an interaction effect as individuals put more credence or value in both when they are combined (Rydgren, 2004). Hence, the following hypothesis is conducted:

**H6: Individuals are more willing to choose a white Tinder profile combined with a Dutch name for a date compared to a non-white Tinder profile combined with a non-Dutch name.**

**Perceived attractiveness**

Since this study is about online dating preferences, it is suggested that the role of perceived attractiveness should be included in the research. Early research already indicated that when it comes to meeting strangers, physical attractiveness is an important determinant for interpersonal attraction (Byrne, London & Reeves, 1968). An American study by Liu and colleagues (1995) showed that people with a seemingly white appearance were rated the most favourable out-group to date. Both Asian and Latinos rated whites as more physically attractive (Liu et al., 1995). Studies about attractiveness across different ethnicities show that there are some general features associated with attractiveness like sexual maternity or symmetry that are set across different ethnicities (Keating, Mazur & Segall, 1981; Cunningham, 1995; Little, Jones & DeBruine, 2011). There are some features that are
positively correlated with attractiveness according to an international quasi-experiment by Cunningham (1986). These are the features of large eyes, a small nose and chin, prominent cheekbones and narrow cheeks. Accordingly, expressive features like high eyebrows, large pupils and a large smile are also positively correlated with attractiveness (Cunningham, 1986). However, many inconstancies on cross-cultural attractiveness remain that prior studies can’t fully theoretical explain (Cunningham, 1995; Coetzee, Stephen, & Perett, 2014). Even Darwin himself couldn’t explain the difference in perceived attractiveness when it comes to different ethnicities, neither could he exclude the possibility of consistency in facial attractiveness judgements (Darwin, 1871; Coetzee et al., 2014).

In sum, it can be argued that physical attractiveness is highly valued when it comes to online dating (Hancock & Toma, 2009). Especially with dating apps like Tinder, where judgments are based on a picture, it is expected that attractiveness will have an increased value as a determinant when it comes to the likelihood of dating. It is expected that attractiveness positively moderate the relationship between the likelihood of dating white Tinder profiles compared to those with non-white profiles, due to same-race and white preferences (Hitsch, Hortacsu & Ariely, 2010). Given this evidence, the following hypotheses are conducted:

H7: Individuals are more willing to choose a white Tinder profile for a date compared to a non-white Tinder profile. The level of perceived attractiveness positively moderates this relationship.

H8: Individuals are more willing to choose a Tinder profile with a Dutch name for a date compared to a Tinder profile with a non-Dutch name. The level of perceived attractiveness positively moderates this relationship.
Methods

Participants

This research is conducted commissioned by the Vrije Universiteit Amsterdam. Out of the total of 469 who initiated participating in the experiment, a total of 331 (70.6%) respondents completed the whole experiment and questionnaire. Incomplete responses were removed from further analysis. No significant outliers were detected nor where there any items deleted. A prior power analysis showed the study must have a sample size of at least 126 respondents in order to achieve a reliable outcome. More women \( (n = 190) \) than men \( (n = 140) \) participated in the study, one person answered with ‘other’ \( (n = 1) \) on the question about the respondent’s gender. The mean age of the respondents was 27.76 years \( (SD = 5.62) \). The respondents ranged in age from 19 to 61 years. 80.4% of the respondents identified themselves as Western, 3.3% was Asian and 16.3% was from another ethnicity. Most of the respondents have no religion (68.1%), followed by Christianity (22.5%) and Islam (4.2%). The education level of the respondents varies from no education to a Master’s Degree. Most respondents are Bachelor Graduates (47.4%), followed by a Master University degree (14.8%) or High School graduates (13.3%). Of the included respondents, 197 chose to be presented with the male stimuli and 134 chose the female stimuli. 192 respondents (58.0%) use(d) the app Tinder before, whereas 139 (42.0%) did not. Both Tinder users and non-users are included in the analyses. However, for hypothesis three, only the Tinder users are included since this hypothesis involves different motivations for using Tinder.

Procedure

This study employed a questionnaire with fake Tinder profiles to acquire a Tinder-like setting. The research was conducted through a survey, which was constructed with the help of the online research software called Qualtrics. A within-subjects design was chosen, because of the advantages in terms of power to detect a significant association between the likelihood of dating and the ethnicity of the stimuli (Charness, Gneezy & Kuhn, 2012). The respondents were approached via the network of the author. They were recruited through work (mailing), university, first- and second-hand networks and throughout multiple survey platforms. The majority of the respondents were collected through a professional work network. Platforms such as Facebook, Instagram, e-mail, Whatsapp and Internet forums were used due to its broad reach and the importance for this study to examine online dating behaviour. A period of 3 weeks was used to recruit respondents, providing sufficient amount of time for the survey to be spread and completed. Because the aim was to recruit respondents of different ethnicities,
the questionnaire was written in English.

The respondents received an anonymous link to the online experiment. By clicking on the link, respondents were redirected to the experiment from their desktop, mobile device or tablet. After clicking on the link, respondents received minimal but sufficient information about the experiment in order to create the most valid and least biased setting as possible. The questionnaire started after the respondents gave their consent in participating. First, some socio-demographic questions were asked. Next, respondents were asked if they had any experience with the app Tinder. This is important, as the result section discusses separate analyses for Tinder users and non-users to see whether different results yield between these groups. If the respondents had any experience with the app, they were asked about their motivation of using Tinder. This information was needed for the hypothesis about the moderating relationship between Tinder use motivations and the likelihood of dating. After finalizing these questions, the experiment started. The respondents were instructed to look at the Tinder-like profiles (the stimuli) before answering the questions that followed about the likelihood to date the presented stimuli. Every respondent was shown either female or the male Tinder stimuli depending on their preference. The stimuli consisted of 12 fictive Tinder profiles per gender. After the stimuli were presented to the respondents, additional questions were asked about the respondent’s cultural background and the level of contact with different ethnic groups. After completing the survey, respondents received more detailed information about the study and they were thanked for their participation.

*Research design*

The study employed a 2x3 design with dependent variable conditions being the ethnicity (white/non-white) and name (no name/Dutch name/non-Dutch name) of the presented stimuli. All the respondents were shown the same stimuli per gender, creating a within-groups design, by using a latter case wherein each respondent is exposed to all the stimuli. The order of presentation of the stimuli was fixed and the names were fixed to the pictures. This resulted in the following stimuli condition combinations: white ethnicity + no name, white ethnicity + Dutch name, white ethnicity + non-Dutch name, non-white ethnicity + no name, non-white ethnicity + Dutch name, non-white ethnicity + non-Dutch name. Please see Appendix A for the used questionnaire and stimuli. Each respondent was shown one picture at a time. After seeing the Tinder-like profile picture, the respondents were asked 3 questions to measure the stimuli dependent variables: the likelihood of dating the person on presented profile, the perceived attractiveness of the presented profile and how likely it was
that the respondents thought the person on presented profile had the same ethnicity as their own. Each respondent was shown 2 pictures in each condition. This was to control for possible confounders that could lead to biased results, for instance one’s personal preference like a specific appearance feature (Charness, Gneezy & Kuhn, 2012). Afterwards, an average is calculated per condition per stimuli. The gender of the respondent is not included in further analyses.

**Stimulus material/conditions**

**Ethnicity**

The used images for the fake Tinder-like profiles were provided by a face research lab London set. A total of 24 pictures with various ethnicities were chosen that were considered to be similar attractive by the author. Please see appendix A for the used stimuli. The original images are a set of 102 adult faces 1350x150 pixels in full colour. All individuals gave signed consent for their images to be used in lab-based and web-based studies in their original or altered forms and to illustrate research. The images were taken in London, UK in April 2012 (Face Research Lab London Set, 2017).

**Names**

According to the ‘Nederlandse Voornamenbank van het Meertens Instituut’ (KNAW), the most commonly found Dutch names for males are: Jan, Daan, Joost and Tobias (KNAW, 2010). For females, commonly found Dutch name are: Anna, Esther, Tess, Sophie, (KNAW, 2010). Hence, these names were chosen as the stimuli input for the Dutch representatives. The foreign names were chosen by consulting popular Arabic and Turkish names (Khalife, 2017). The chosen foreign names for the males are: Mehmet, Karim, Cielo and Mustafa, for the females: Zeynep, Svetlana, Souhaila and Khadija.

**Measures**

**Dependent variables**

**Likelihood of going on a date**

The stimulus-dependent variable: the likelihood of going on a date, was measured in terms of how likely the respondent thought he or she would go on a date with the presented profile. This was measured with the use of a 5-point Likert scale (1 = very unlikely, 2 = a little unlikely, 3 = neither unlikely nor likely, 4 = a little likely, 5 = very likely).
Perceived attractiveness

The stimulus-dependent variable: the perceived attractiveness of the presented Tinder profile, was measured in terms of how likely it was that the respondent would find this person attractive. This was measured with the use of a 5-point Likert scale (1 = very unlikely, 2 = a little unlikely, 3 = neither unlikely nor likely, 4 = a little likely, 5 = very likely).

Ethnic similarity / manipulation check

The stimulus-dependent variable: the ethnicity of the presented profile in relation with the ethnicity of the respondent, was measured in terms of how likely the respondent thought he or she shared the same ethnicity as the presented profile. This was also a partial measure to check if the manipulation worked like hypothesized. This was measured with the use of a 5-point Likert scale (1 = very unlikely, 2 = a little unlikely, 3 = neither unlikely nor likely, 4 = a little likely, 5 = very likely).

Independent variables

Tinder experience

Respondents were asked if they have or had any experience with Tinder. If they answered “no”, this meant they got redirected to the next set of questions. If respondents answered “yes”, then they received two additional questions about the frequency and motivations of their Tinder use. Respondents were asked how often they use (or used) the app (during their most active Tinder period) on a scale of: 1 = monthly, 2 = once or twice a month, 3 = 1 to 3 times a week, 4 = 4 to 5 times a week, and 5 = every day.

Motivations of Tinder use

After determining the frequency of their Tinder use, respondents were asked what their motives are for using the app. The question was formulated as: “I use (or used) Tinder because..”. Respondents could chose 1 out of 6 possible answers like; “to flirt” or “it helps me finding a long term relationship”. In order to not fatigue or wear out the respondents, 6 items that are applicable for this research are chosen. Please see Appendix A for the list of used items (Sumter, Vandenbosch, & Ligtenberg, 2017).

Interracial contact

The level of interracial contact was measured by using the Race Contact Questionnaire by Hancock and Rhode’s (2008), with statements describing the level of contact between the
respondent and different ethnic groups. 4 items were chosen in order to have the highest fit with this research (Appendix A). Participants indicated their level of agreement on a 5-point Likert scale at 1 = very unlikely, 2 = a little unlikely, 3 = neither unlikely nor likely, 4 = a little likely, 5 = very likely. In order to provide an accurate answer for the hypothesis, one question was manually added, stating: “My friends or family would approve if I dated or married someone who has a different ethnicity than mine”. Internal consistency of the scale was good (Cronbach’s alpha = .78).

Socio-demographic information

Age & gender. Respondents could indicate their age in years and gender by choosing male, female or other.

Ethnicity. To indicate their ethnicity, the respondents had the opportunity to select Western, Asian, Northern-African, Southern-European, Eastern-European, Antillean, Surinamese, African, or other.

Religion. To indicate the respondents’ religion, respondents could choose none, Islam, Christianity, Judaism, Hinduism, Buddhism or other.

Highest completed education level. To indicate the respondents’ education level, respondents could choose their highest education level from the following options (illustrated with Dutch credentials): no schooling completed, middle school graduate (basisschool), high school graduate (middelbare school), college graduate (HBO), MBA (HBO Master), university Bachelor’s degree (WO), university master’s degree (WO Master), PhD, and other, namely...

Sexual preference & Tinder preference. To assess the respondents’ sexual preference, respondents could choose from male, female and other. To assess their sexual preference on Tinder and present them with the preferred stimuli, respondents could choose male or female. According to this choice, respondents were shown either the male or female stimuli.

Used statistical methods and preparation of the data

Since this study needed a comprehensive preparation of the data before the actual analyses could be performed, an explanatory chapter is built to provide the reader with more insights in the context of reproducibility. Please see Appendix B for more detailed information about the preparation of the data. First, all the dependent variables were calculated per condition per stimuli gender. These consist of the average scores for the stimuli per ethnicity (white/non-white) and name (no name/Dutch-name/non-Dutch name)
conditions. The dependent variables were measured in terms of how likely it was that the respondent would go on a date with the presented stimuli (H1 - H8), the perceived ethnic similarity between the respondent and the presented stimuli (manipulation check, H1) and how attractive the respondent found the presented stimuli (H7, H8). The main analysis of the within subjects experiment is done through Repeated Measures ANOVA analyses with supplementary paired t-tests. The within-subject moderation analyses are done with the help of the macro for SPSS called ‘MEMORE’ (H3, H4). Since the respondents were shown either the female or the male stimuli, all the analyses are conducted and discussed separately per sex of the presented stimuli.
Results

Manipulation check

A manipulation check was conducted to check if the manipulation interpretation was successful in terms of ethnic similarity between the respondents and the presented stimuli. Multiple independent samples t-tests were conducted to compare the averages for the perceived ethnic similarity of the respondent in all stimuli ethnicity (white/non-white) and name (no name/Dutch name/non-Dutch name) conditions with the Western ethnicity of the respondent as the grouping variable. Table 1 shows the descriptive statistics together with the t-value for the male and female stimuli in all conditions. The results suggest that respondents with a Western ethnicity were more likely to identify themselves as white ($p < .05$). The results also suggest that when the Western respondents were presented with the stimuli with a non-Dutch name, this resulted in a lower tendency of identifying them as having the same ethnicity. The non-white male stimuli did not show significant results in every name condition ($p$-values of independent $t$-tests for no name, Dutch-name and non-Dutch were all $> .05$). However, since the majority of the respondents are Western, only statements about the ethnic similarity of the Western respondents can be made in relation to their interracial dating behaviour. Hence, the experiment was successful for the Western respondents.

Table 1

Descriptive statistics for both male and female stimuli in all ethnicity and name conditions.

<table>
<thead>
<tr>
<th>Ethnicity stimuli</th>
<th>Name stimuli</th>
<th>Ethnicity respondent</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>Levene's F</th>
<th>Mean diff.</th>
<th>T-test value</th>
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<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>White</td>
<td>No name</td>
<td>Western</td>
<td>3.94</td>
<td>1.13</td>
<td>156</td>
<td>6.59</td>
<td>-1.29</td>
<td>-6.13**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Western</td>
<td>2.65</td>
<td>1.36</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>Non-Dutch name</td>
<td>Western</td>
<td>3.22</td>
<td>1.11</td>
<td>156</td>
<td>2.94</td>
<td>-.61</td>
<td>-2.97**</td>
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<tr>
<td></td>
<td></td>
<td>Non-Western</td>
<td>2.61</td>
<td>1.33</td>
<td>40</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>Dutch name</td>
<td>Western</td>
<td>3.79</td>
<td>1.18</td>
<td>156</td>
<td>9.98</td>
<td>-1.22</td>
<td>-5.54**</td>
</tr>
<tr>
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<td>2.58</td>
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<td>40</td>
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<td></td>
<td></td>
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<tr>
<td>Non-white</td>
<td>No name</td>
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<td>1.72</td>
<td>.78</td>
<td>156</td>
<td>2.43</td>
<td>.14</td>
<td>.97</td>
</tr>
<tr>
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<tr>
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<td>.73</td>
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<td>.16</td>
<td>.01</td>
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<tr>
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</tbody>
</table>
Hypothesis testing

Hypothesis one predicted that individuals are more willing to date a Tinder profile with the same ethnicity as theirs, compared to a Tinder profile with a different ethnicity. A mixed design ANOVA and a supplementary paired t-test analysis were conducted in which the Western ethnicity of the respondent was used as a dichotomous between-subjects factor, to test the effect of the respondent’s Western ethnicity on the likelihood of going on a date with the presented stimuli in all conditions. Please see Appendix B for the list of computed means for the analyses.

For the male stimuli, there was a no significant effect of the respondent’s ethnicity on the likelihood of dating the presented stimuli between the ethnicity and name conditions, Wilks’ Lambda = .958 $F(2, 218) = 4.759$, $p >.05$. In addition, no significant differences were found when dividing the sample into Tinder users and non-users.

For the female stimuli, there was a significant effect of the respondent’s ethnicity on the likelihood of dating the presented stimuli between the ethnicity and name conditions, Wilks’ Lambda = .728 $F(2, 171) = 31.926$, $p = .000$. Six paired t-tests were used to make comparisons between conditions. A first paired t-test indicated that there was a significant difference between respondents who identified themselves as Western ($M = 2.37$, $SD = 1.46$) and non-Western ($M = .42$, $SD = .97$) on the likelihood of dating the white stimuli without a name; $t(133) = 9.99$, $p = .000$. A second paired t-test indicated that there was a significant difference between respondents who identified themselves as Western ($M = 2.71$, $SD = 1.49$) and non-Western ($M = .61$, $SD = .133$) on the likelihood of dating the white stimuli without a
A third paired t-test indicated that there was a significant difference between respondents who identified themselves as Western ($M = 3.07, SD = 1.78$) and non-Western ($M = .71, SD = 1.57$) on the likelihood of dating the white stimuli with a Dutch name; $t(133) = 8.61, p = .000$. A fourth paired t-test indicated that there was a significant difference between respondents who identified themselves as Western ($M = 1.95, SD = 1.34$) and non-Western ($M = .41, SD = .96$) on the likelihood of dating the non-white stimuli with no name; $t(133) = 8.56, p = .000$. A fifth paired t-test indicated that there was a significant difference between respondents who identified themselves as Western ($M = 1.44, SD = 1.01$) and non-Western ($M = .28, SD = .66$) on the likelihood of dating the non-white stimuli with a non-Dutch name; $t(133) = 8.88, p = .000$. A sixth paired t-test indicated that there was a significant difference between respondents who identified themselves as Western ($M = 1.60, SD = 1.14$) and non-Western ($M = .30, SD = .69$) on the likelihood of dating the non-white stimuli with a Dutch name; $t(133) = 9.11, p = .000$. No significant differences were found when dividing the sample into Tinder users and non-users.

These results suggest that Western respondents who were presented with the female stimuli preferred to date interracial. A significant relation for the male stimuli cannot be confirmed due to insignificant results in the repeated measures analysis. In sum, these results show that the hypothesis can be partly accepted.

**Hypothesis two** predicted that individuals are more willing to date a white Tinder profile compared to a non-white Tinder profile. A repeated measures ANOVA analysis and a supplementary-paired t-test were conducted to check whether the white stimuli in the no name condition were more likely to be chosen for a date. Please see Appendix B, tables 2 and 3, for an overview of the descriptive statistics.

For the male stimuli, there was a significant effect of the stimuli’s ethnicity on the likelihood of dating, Wilks’ Lambda = .536, $F(1, 195) = 168.727, p = .000$. A supplementary paired t-test indicated that there was a significant difference between the likelihood of dating the white stimuli without a name ($M = 2.29, SD = 1.10$) and the non-white stimuli without a name ($M = 1.79, SD = .89$); $t(195) = 6.42, p = .000$. No differences were found when dividing the sample into Tinder users and non-users.

For the female stimuli, there was a significant effect of the stimuli’s ethnicity on the likelihood of dating, Wilks’ Lambda = .263, $F(1, 133) = 372.8, p = .000$. A supplementary paired t-test indicated that there was a significant difference between the likelihood of dating the white stimuli without a name ($M = 2.79, SD = 1.04$) and the non-white stimuli without a name ($M = 2.36, SD = 1.05$); $t(133) = 4.58, p = .000$. No significant differences were found
when dividing the sample into Tinder users and non-users.

These results suggest that the white profiles were more likely to be chosen for a date in the no name condition for both stimuli genders. The hypothesis is fully accepted.

*Hypothesis three* predicted that Tinder users are more willing to date a white Tinder profile compared to a non-white Tinder profile, the motivation of using Tinder for a casual hook-up negatively moderates this relationship. The motivation for using Tinder varied between the respondents. Out of the total Tinder users in this experiment ($n = 192$), most respondents said they use(d) Tinder to flirt (32.3%). Others that it’s a fun way of meeting new people (28.6%), that it helps them to find a long-term romantic relationship (24.5%), looking for a casual hook-up (13.5%), to talk about sex (5%) or establish friendships (5%). With the help of the SPSS Macro MEMORE, a repeated measures ANOVA analysis was conducted to test the relationship between the dependents (the likelihood of going on a date with the white stimuli with no name and the likelihood of going on a date with the non-white stimuli with no name), with the motivation of using Tinder for a casual hook-up added in the model as a moderator.

For the male stimuli, the motivation of using Tinder for a casual hook-up has a negative but non-significant relationship on the dependents, Wilks’ Lambda $= -0.793 F(1, 98) = 1.472, p > .05$. The same results apply when dividing the sample into Tinder users and non-users.

For the female stimuli, the motivation of using Tinder for a casual hook-up has a negative but non-significant relationship on the dependents, Wilks’ Lambda $= -0.120 F(1, 90) = 396, p > .05$. The same results apply when dividing the sample into Tinder users and non-users.

In sum, this hypothesis is rejected. Further research is needed to entail the role of Tinder motivations on the likelihood of dating.

*Hypothesis four* predicted that individuals are more willing to date a white Tinder profile compared to a non-white Tinder profile. The level of contact with different ethnic groups negatively moderates this relationship. A repeated measures ANOVA analysis was conducted to test the relationship between the likelihood of dating the white and non-white stimuli with the level of contact with different ethnic groups added in the model as moderator.

For the male stimuli, the level of contact with different ethnic groups has a negative but non-significant relationship with the likelihood of dating, Wilks’ Lambda $= -0.094F(1, 194) = 2.045, p > .05$. Interesting results emerged when conducting repeated measures ANOVA analyses for the white and non-white stimuli separately per type of interracial interaction.
contact. For the white stimuli, no moderating effects were observed \((p > .05)\). For the non-white stimuli however, interacting with different ethnicities at school has a negative significant relationship with the likelihood of dating, Wilks’ Lambda = -.137 \(F(5, 190) = 2.779, p < .01\). Approval of friends and family has a negative moderating relationship with the likelihood of dating the non-white stimuli, Wilks’ Lambda = .109 \(F(5, 190) = 2.779, p < .05\). The same results apply when dividing the sample into Tinder users and non-users.

For the female stimuli, the level of contact with different ethnic groups has a negative but non-significant relationship with the likelihood of dating, Wilks’ Lambda = -.060 \(F(1, 132) = .623, p > .05\). However, when dividing the sample into Tinder users and non-users, different results emerge. For Tinder users, the level of contact with different ethnic groups does have a negative significant moderating relationship with the likelihood of dating, Wilks’ Lambda = -.235 \(F(1, 190) = 5.038, p < .05\). When conducting multiple repeated measures ANOVA analyses for the white and non-white stimuli separately per type of interracial contact, approval of friends and family has a positive significant relationship with the white stimuli, Wilks’ Lambda = .158 \(F(5, 128) = 1.170, p < .05\).

In sum, since most of the results are non-significant, the hypothesis is rejected. Further research should entail the moderating role of interracial contact on the likelihood of dating.

*Hypothesis five* predicted that individuals are more willing to date a Tinder profile with a Dutch name compared to a Tinder profile with a non-Dutch name. A repeated measures ANOVA analysis with supplementary t-tests were conducted to check whether the condition of the stimuli’s name affected the likelihood to date.

For the male stimuli, there was an significant effect of the stimuli’s name on the likelihood of dating, Wilks’ Lambda = .952 \(F(2, 194) = 4.924, p < .01\). Two paired t-test were used to make comparisons between conditions. A first paired t-test indicated that there was a significant difference between the likelihood of dating the white stimuli with a non-Dutch name \((M = 2.34, SD = 1.11)\) and the non-white stimuli with a non-Dutch name \((M = 1.53, SD = .80)\); \(t(195) = 10.37, p = .000\). A second paired t-test indicated that there was a significant difference between the likelihood of dating the white stimuli with a Dutch name \((M = 2.57, SD = 1.16)\) and the non-white stimuli with a Dutch name \((M = 1.56, SD = .79)\); \(t(195) = 11.99, p = .000\). Interestingly, when dividing the sample into Tinder users and non-users, Tinder users did show a significantly higher tendency to date the Dutch named profiles, Wilks’ Lambda = .920 \(F(2, 98) = 4.285, p < .05\). Non-users did not however, Wilks’ Lambda = .975 \(F(2, 94) = 1.229, p > .05\).

For the female stimuli, there was an significant effect of the stimuli’s name on the
likelihood of dating, Wilks’ Lambda = .776 $F(2, 132) = 19.028, p = .000$. Two paired t-test were used to make comparisons between conditions. A first paired t-test indicated that there was a significant difference between the likelihood of dating the white stimuli with a non-Dutch name ($M = 3.32, SD = .82$) and the non-white stimuli with a non-Dutch name ($M = 1.73, SD = .80$); $t(133) = 21.72, p = .000$. A second paired t-test indicated that there was a significant difference between the likelihood of dating the white stimuli with a Dutch name ($M = 3.78, SD = 1.11$) and the non-white stimuli with a Dutch name ($M = 1.90, SD = .91$); $t(133) = 17.18, p = .000$. When dividing the sample into Tinder users and non-users, Tinder users did show a higher tendency to date the Dutch named female stimuli, Wilks’ Lambda = .700 $F(2, 90) = 19.315, p = .000$. Non-users did not however, Wilks’ Lambda = .900 $F(2, 40) = 2.215 p > .05$.

In sum, the results show that the stimuli that consisted of Dutch names were more likely to be chosen for a date. Therefor the hypothesis can be fully supported. Furthermore, these results seem more applicable for Tinder users.

**Hypothesis six** predicted that individuals are more willing to date a white Tinder profile in combination with a Dutch name compared to a non-white Tinder profile in combination with a non-Dutch name. A repeated measures ANOVA analysis was conducted to test the interaction effect of the stimuli’s ethnicity conditions (white/non-white) and name conditions (no name/Dutch name/Non-Dutch name) on the likelihood of dating.

For the male stimuli, there was an significant effect of name and ethnicity, Wilks’ Lambda = .863 $F(2, 194) = 15.388, p = .000$. No significant differences were found when dividing the sample into Tinder users and non-users.

For the female stimuli, there was an significant effect of name and ethnicity, Wilks’ Lambda = .468 $F(2, 132) = 74.918, p = .000$. No significant differences were found when dividing the sample into Tinder users and non-users.

A couple of statements can be made when looking at the interaction effect of all ethnicity and name conditions, see Figure 1. Firstly, the white stimuli with a Dutch name scores highest when it comes to the likelihood of being chosen for date. The stimuli that consisted of non-white ethnicities, scored lower in every name condition compared to the white stimuli. Interestingly, having no name added to the stimuli seems beneficiary for the non-white stimuli when it comes to being chosen for a date. This is the exact opposite for the white stimuli, as not adding a name lowers the likelihood of dating. These results are applicable for both stimuli genders. Lastly, the female stimuli was rated with higher scores than the male stimuli. In sum, these results show that the hypothesis can be fully supported.
Figure 1. Interaction effect for the likelihood of going on a date in all ethnicity and name conditions. Female and male stimuli.

Hypothesis seven predicted that individuals are more willing to date a white Tinder profile for a date and the level of perceived attractiveness positively moderates this relationship. A repeated measures ANOVA analysis was conducted to test the relationship between the likelihood of dating the presented white and non-white stimuli, with perceived attractiveness added in the model as a moderator.

For the male stimuli, there was a significant positive moderating relationship between attractiveness and the likelihood of dating between both ethnicity conditions $F(2, 193) = 151.16, p < .001$. The high level of explained variance indicates that attractiveness is an important moderator for the likelihood of dating ($R^2 = .61$). When looked at the likelihood of dating the white male stimuli as a dependent separately, attractiveness has a significant positive moderating relationship, $b = .86, t(2, 193) = 19.14, p = .000$. When looked at the likelihood of dating the non-white male stimuli as a dependent separately, attractiveness has a significant positive moderating relationship, $b = .83, t(2, 193) = 18.22, p < .001$. The same results apply when dividing the sample into Tinder users and non-users.

For the female stimuli, there was a positive significant moderating relationship between attractiveness and the likelihood of dating between both ethnicity conditions $F(2, 131) = 139.23, p < .001$. The high level of explained variance indicates that attractiveness is an important moderator for the likelihood of dating ($R^2 = .68$). When conducting a separate repeated measures ANOVA with the likelihood of dating the white stimuli as a dependent,
attractiveness has a significant positive moderating relationship, \( b = .90, t(2, 131) = 17.87, p = .000 \). When conducting a separate repeated measures ANOVA with likelihood of dating the non-white stimuli as a dependent, attractiveness has a significant positive relationship, \( b = .78, t(2, 131) = 15.36, p = .000 \). The same results apply when dividing the sample into Tinder users and non-users.

These results suggest that attractiveness has a positive moderating relationship on the likelihood of dating. Specifically, the results suggest that respondents were more likely to choose the white stimuli for a date and that perceived attractiveness strengthened this relationship. The hypothesis can be fully supported for both genders.

*Hypothesis eight* predicted that individuals are more willing to date a Tinder profile with a Dutch-sounding name for a date and that the level of perceived attractiveness positively moderates this relationship. A repeated measures ANOVA analysis was conducted to test the relationship between the likelihood of dating the stimuli in the Dutch name condition and the non-Dutch name condition, with perceived attractiveness added in the model as a moderator.

For the white male stimuli, there was a significant positive moderating relationship between attractiveness and the likelihood of dating between both name conditions, \( F(2, 193) = 300.76, p < .001 \). When looked at the likelihood of dating the white male stimuli with a non-Dutch name as a dependent, attractiveness has a significant positive moderating relationship, \( b = .83, t(2, 193) = 22.49, p < .001 \). When looked at the likelihood of dating the white male stimuli with a Dutch name as a dependent, attractiveness has a significant positive moderating relationship, \( b = .94, t(2, 193) = 26.03, p = .000 \). The same results apply for the non-white male stimuli, as attractiveness shows a significant positive relationship with the non-white stimuli with a non-Dutch name, \( b = .77, t(2, 193) = 14.18, p = .000 \), and the non-white stimuli with a Dutch name, \( b = .93, t(2, 193) = 18.66, p < .001 \). The same results apply when dividing the sample into Tinder users and non-users.

For the white female stimuli, there was a significant positive moderating relationship between attractiveness and the likelihood of dating between both name conditions \( F(2, 131) = 128.21, p < .001 \). When looked at the likelihood of dating the white female stimuli with a non-Dutch name as a dependent, attractiveness has a significant positive moderating relationship, \( b = .72, t(2, 131) = 13.88, p = .000 \). When looked at the likelihood of dating the white female stimuli with a Dutch name as a dependent, attractiveness has a significant positive moderating relationship, \( b = .97, t(2, 131) = 18.07, p = .000 \). The same results apply for the non-white stimuli, as attractiveness has a significant positive relationship with the likelihood of dating.
the non-white stimuli with a non-Dutch name, $b = .79$, $t(2, 131) = 13.42, p = .000$, and for the likelihood of dating the non-white profiles with a Dutch name, $b = .81$, $t(2, 131) = 13.66, p = .000$. The same results apply when dividing the sample into Tinder users and non-users.

These results suggest that respondents were more likely to choose the stimuli with a Dutch name for a date and perceived attractiveness strengthened this relationship. The hypothesis can be fully supported for both genders.
Conclusion

The goal of this study was to investigate the effect of an ethnic appearance and ethnic name on the likelihood of being chosen for a date in an online dating setting such as Tinder. Since the sample consisted of mainly Western respondents, the applicability of this study is for those identifying themselves as Western. In line with previous research, this study showed that whites were the most favourable group to date and that Western respondents tend to prefer to date interracially when it comes to dating females (Harris & Kalbfleisch, 2000; Hwang, 2012; Levin, Taylor, & Claudle, 2007; Liu, Campbell, & Condie, 1995; Yancey, 2002). Interesting results emerged when a name was added to the design. The stimuli that consisted of fake Tinder-like profiles with a white ethnicity in combination with a Dutch name were the most favourable group to date. The stimuli that consisted of a non-white ethnicity combined with a non-Dutch name were the least favourable group to date. Adding a non-Dutch name seems to lower the likelihood of dating for both white and non-white stimuli. This is in line with previous research, stating that a name can be seen as an essential piece of information that provides users with a hint of one’s heritage and can lead to possible biased or negative associations (Carpusor & Loges, 2006; Walther et al., 2009). This can result in a lower tendency to date people with foreign names (Tajfel, 1970; Carpusor & Loges, 2006).

Specifically, these results indicate that non-white Tinder profiles can have a disadvantage when it comes to the likelihood of being chosen for a date in the online dating arena in the Netherlands. Accordingly, having a non-white appearance and a non-Dutch name could lower the chance of being chosen for a date. The study furthermore shows that some of the results are even more applicable for Tinder users when compared to non-users. This is an interesting phenomenon to explore further, since the number of active online dating app users is increasing profoundly every year (Wiederhold, 2015).

**In-depth conclusions per hypothesis**

The first hypothesis argued that individuals are more likely to date interracially. This hypothesis is confirmed for the Western female stimuli and partly accepted for the male stimuli due to insignificant results in the additional repeated measures ANOVA analysis for the male stimuli. Individuals who identified themselves as Western were significantly more likely to date the Western stimuli when they perceived this as their own ethnicity. This is well aligned with earlier findings, indicating that individuals prefer dating intra-racially compared to interracially (Potárcá & Mills, 2015). A possible explanation for this can be found by applying the Social Identity Theory. As individuals, we are already born in a social structured
society, and individuals derive their identity or self-categorization from social categories from which they feel they belong (Abrams & Hogg, 1988). This in-group identification that is intertwined with the Western cultural and historical history can explain preferences to date people of the same ethnicity (Abrams & Hogg, 1988; Buss & Schmidt, 1993, Brewer, 1999).

The second hypothesis argued that individuals are more willing to date white individuals compared to non-white individuals. This hypothesis is fully confirmed. Both the female and male white stimuli were rated with significant higher scores for being chosen for a date. This is well aligned with earlier research, stating that whites are the most favourable group to date (Liu et al., 1995). This also aligns with earlier findings that whites are the more favourable group to date when it comes to online dating (Miller et al., 2004; Hwang, 2012; Bialik, 2017; Buunk & Dijkstra, 2017; Levin et al., 2007). When dividing the sample into Tinder users and non-users, both groups showed significant results in line of the hypothesis. Meaning that in this study, both users and non-users prefer to date the white profiles. This is an interesting contradiction with earlier mentioned research on interracial relations, stating that online dating apps facilitate more interracial or interreligious relations (Thomas, 2018). However, as Thomas (2018) also clearly points out: “population-level estimates suggest that only a small part of recent changes in couple diversity can be linked to couples meeting online, but there is the potential for more Internet-induced change if it becomes the primary source of romantic introductions” (p. 1). Specifically, combining current research with Thomas’ can suggests that even though interracial relationships are more prominent in the online dating arena, white profiles are still the favourable group to date for both Tinder users and non-users.

Hypotheses 3 and 4 provided possible explanation for these discrepancies in the likelihood to date interracially, as several moderators where added in the repeated measures analysis. Both hypotheses are rejected. Hypothesis 3 argued that the motivation of using Tinder for a casual hook-up negatively moderates the likelihood of dating. Aligned with earlier research, respondents showed a variety of motivations for the use of LBTD apps like Tinder (Carpenter & McEwan, 2016; Khiri & Keijser, 2013; Wiederhold, 2015; Sumpter et al., 2017). Most respondents use(d) Tinder to flirt (32.3%), others to talk and meet new people (28.6%) or to find along-term romantic relationship (24.5). The motivation of using Tinder for a casual hook-up did not have a significant relationship with the likelihood of dating. This is inconsistent with earlier findings stating that individuals who use Tinder for physical gratifications instead of long-term goals, are more willing to date interracial (Stewart et al., 2000;Troy et al., 2006). A possible explanation could be the limitation of the questionnaire in
combination with the necessary analysis, what will be further addressed in the limitations. Hypothesis 4 argued that the level of interracial contact has a negative moderating relationship with the likelihood of dating. No significant results were found when adding interracial contact as a moderator in the repeated measures analysis. Therefore, the hypothesis is rejected. This is inconsistent with earlier findings, stating that increased contact with different ethnicities at schools or neighbourhoods can lead to more inter-racial dating (Fujino, 1997; Yancey, 2002). It is however well aligned with a study by Mok (1999), indicating that ethnic density of where one lives have almost no influence on inter-racial dating. A possible explanation for this can be derived from the results of the separate MEMORE analyses. The separate analyses show that approval from friends or family is a significant moderator for the non-white male stimuli and for the white female stimuli. This is in line with earlier results, stating that not ethnic density but approval of family is the highest predictor for interracial dating (Mok, 1999). Further research is needed to provide more insights and prove the role of interracial contact as a moderator.

Hypotheses 5 and 6 argued that individuals are more likely to date individuals with a Dutch name compared to those with a foreign name (H5) and that the combined effect of a Dutch name and white appearance results in an even higher likelihood of dating (H6). Both hypotheses are confirmed for both the female and male stimuli. The white stimuli in combination with a Dutch name were rated the most favourable group to date. Interesting results emerged when dividing the sample into Tinder users and non-users. Users did show a significant higher tendency to date Dutch named profiles. Non-users however, did not. When looking at the combined effect of an ethnic name and appearance on the likelihood of dating (H6), multiple statements can be made. For starters, the white profiles in combination with a Dutch name received the highest score for the likelihood of being chosen for a date. Furthermore, the non-white stimuli scored lower in every name condition compared to the white stimuli. The non-white stimuli received lower averages in all name conditions when compared to the white stimuli. Interestingly, the non-white stimuli without the mentioning of a name score the highest when it comes to the likelihood of dating. This is the exact opposite for the white stimuli. Lastly, the female stimuli was rated with higher scores than the male stimuli. Specifically, these results indicate that the combination of a non-white ethnic appearance and an ethnic name seemed disadvantageous in this study when it comes to the likelihood of dating. These findings are well aligned with earlier mentioned studies indicating that (foreign) names can lead to biased perceptions when it comes to dating (Carpusor & Loges, 2006; Walther et al., 2009). A possible explanation for this can be found in the
activation phenomenon of stereotyping and prejudice when looking at one’s skin colour or name (Fiske, 2000). Another possible explanation can be found with the help of the Social Identity Theory, as online dating can facilitate more in-group and out-group behaviour (Tjafel, 1981; Tjafel & Turner, 1986). The results of this study show that hypothesis 5 is more applicable for the Tinder users compared to the non-users.

Hypotheses 7 and 8 included a positive moderating role of attractiveness on the likelihood of dating. Hypothesis 7 argued that individuals are more willing to date individuals who have a white ethnic appearance and that this effect will be positively moderated by perceived attractiveness. Hypothesis 8 argued that individuals are more willing to date individuals who have a Dutch name and that this effect is positively moderated by attractiveness. Both hypotheses are fully confirmed, as the repeated measures ANOVA analyses show that attractiveness has a positive moderating relationship for all ethnicity and name conditions on the likelihood of dating. This is well aligned with the argument that attractiveness plays an important role when it comes to online dating (Hancock & Tomas, 2009). This is consistent with earlier mentioned study by Liu and colleagues (1955), indicating that individuals with a seemingly white profile are rated more attractive than non-white profiles. The high level of variances explained by the repeated measures ANOVA analyses shows that physical attractiveness is highly valued when it comes to (online) dating (Hancock & Toma, 2009).
Discussion

Limitations

There are some limitations that need to be addressed with regards to this study. The first limitation involves the used stimuli. The stimuli could have been more all encompassing. Meaning: not every ethnicity was represented in the stimuli, making it hard to generalize the findings for the stimuli that were identified as non-Western. The used stimuli were subtracted from a research lab set in London. The original images were a set of 102 adult faces, what limited the freedom of using photo’s with other faces, expression, ethnicities et cetera. Accordingly, the age of the presented stimuli was estimated somewhere between 20-35. This meant that for individuals who were younger or older than this, there would be no adequate partner. This could lead to biased results for individuals when asked if they would go on a date with the presented stimuli. Luckily, most of the respondents in this study were in this age category and it is therefor expected that the consequences of this were minimal.

Furthermore, there are some limitations that are related to the research design. A first limitation is that most of the respondents classified themselves as Western. This made answering the hypothesis about having the same ethnicity difficult, as there were no equal groups per ethnicity aside Westerns. Not all the ethnicities were represented in both the stimuli and the respondents taking the experiment, making the findings of this study mainly applicable for those identifying themselves as Western. A second limitation is that there was no counterbalancing across subjects. The participants could have received the combination of stimuli treatments in different order, to guard for possible order or sequence effects (Brooks, 2012). For example, when people could guess what stimuli came next and they were aware of the purpose of the study, they could give social desirable answers. Another limitation is the used questionnaire in combination with the statistical measure that is used for the moderating relationship of Tinder motivations. Due to the need of excluding non-users and dividing the sample per motivation per gender, the design has very low statistical power. This means that minor moderating relationships could not be detected. Accordingly, it can be argued that the (sexual) background of the respondent could have been included in the research design. Not including this as a variable in the research design may have resulted in ignoring possible confounding variables, like the respondent’s gender. However, this was not the aim of this study. This study focussed on differences in the likelihood of dating the presented female or male stimuli, not the gender of the respondent.

The last limitation for this study is that causality is difficult to measure. Multiple factors influence social behaviour and attitudes what can lead to biased results. A clear
example of this is one’s sexual preference or appeal. When individuals have a preference, this
does not automatically mean that discrimination, stereotyping or racism is involved. Therefor
no direct statements have been made about this. This study focussed on revealing the patterns
and discrepancies when it comes to the likelihood of dating white and non-white Tinder-like
profiles. Future research could focus more on the underlying motives and attitudes when it
comes to intra- and interracial dating behaviour.

Recommendations for future research

This research was conducted to gain more insights in an individual’s likelihood to date
interracially in an experimental setting. Even though the results show a clear image of the
discrepancies between the likelihood to date the white and non-white stimuli, future research
can add more insights into this topic with regards to the underlying attitudes of individuals. It
is clear that the white stimuli seem to be the more datable group in this study and interesting
results emerge when a (ethnic) name is added. However, it has not been explained in-depth
what drives respondents to this tendency to date white profiles or Dutch names. By studying
underlying mechanisms about one’s attitude, possible explanations can be given with the help
of future research. As several limitations are addressed, a couple of recommendations are
suggested for future research to eliminate these limitations. Firstly, it is recommended to have
a proper pre-study prior to a follow-up study. A pre-study would have made it possible to
select pictures with more ethnicities and use pictures who would be classified as similar
attractive by a control group. This would also minimal the discrepancy between what the
author thinks is the profile’s ethnicity and what the respondents think. It is advised that the
stimuli should consist of pictures of different ethnicities and various age categories, to create
a more adequate dating setting. Another recommendation would be to acquire respondents of
every ethnicity. This way, the finding can be generalized and compared between different
ethnicities.

In sum, this study poses deeper insights of a better understanding of social-
demographic relations in a relatively unexplored Dutch setting. It provides ground for future
research. Future research can help to understand not only the attitudes of individuals when it
comes to interracial dating, but it can also create a better understanding of dating in another
culture, the role of heritage and everything that is intertwined with it. These insights can be
used to create a better understanding of intra- and interracial dating, and with that a diverse
socio-demographic society.
Literature


Byrne, D., London, O., & Reeves, K. (1968). The effects of physical attractiveness, sex, and attitude similarity on interpersonal attraction. *Journal of Personality, 36*, 259–271. doi: 10.1111/j.1467-6494.1968.tb01473.x


Appendix A: Survey (with manipulation)

Introduction
Dear participant,

Thank you for taking time to participate in this research. I kindly ask you to answer all the questions truthfully. Please note that your participation is voluntarily and completely anonymous. The questionnaire will take approximately … minutes. You can take the survey on a laptop, computer, phone or tablet.

Final note up front: the provided photo’s/stimuli are NOT real Tinder accounts. No actual dates are to be arranged (Sorry!).

With kind regards,

Stephanie Stam
Student Communication Science at VU University

-> Yes, I like to participate

-> No, I do not want to participate

Socio-demographic questions. Please fill in the following questions:

1. What is your gender?

2. What is your age?

3. What is your ethnicity?
   - Hispanic or Latino
   - Not Hispanic or Latino

4. What is your heritage?
   - Black or African American
5. What is your religion?
- None
- Islam
- Christianity
- Judaism
- Hinduism
- Buddhism
- Other, ....

6. Please choose your highest completed education level.
- No schooling completed
- Middle school graduate (basisschool)
- High school graduate (middelbare school)
- College graduate (HBO)
- Master’s degree (HBO Master)
- University Bachelor’s degree (WO)
- University Master’s degree (WO Master)
- PhD
- Other, namely...

Tinder use – The following questions will be about the app ‘Tinder’.

7. Do you have any experience with the app called ‘Tinder’?
   - Yes
   - No (redirecting to question 9)

8. How frequently are/have you using/used ‘Tinder’ during your most active period?
Less than once a month
- Monthly
- Once or twice a month
- 1 to 3 times a week
- 4 to 5 times a week
- Every day

9. I (would) use (or used) Tinder because…. (Please choose one answer that suits best)
   1. It helps me find a (long-term) romantic relationship
   2. To flirt
   3. It helps me to establish new friendships
   4. I’m looking for a casual hook-up
   5. It is a fun way to talk and to meet new people
   6. To talk to someone about sex

Next, you will be presented with some profile pictures. The task is easy and no actual Tinder experience is needed. Please look carefully at the presented Tinder profiles. After every picture, 3 questions will be asked accordingly. Please answer the questions before heading to the next profile picture.

Note: The presented profiles are fictional. There will be no actual matches/conversations.
Note: If you are currently in a marriage/relationship/seeing someone: please answer the questions as if you are single. Like mentioned, the experiment is completely fictional and anonymous. No marriages/relationships will be broken.

Manipulation 1A (2x): Female/male, white / no name
   1. How likely do you think you would go on a date with this person? (5-point Likert scale)
   2. How likely do you think this person has the same ethnicity as yours? (5-point Likert scale)
   3. How attractive do you think this person is? (5-point Likert scale)

Manipulation 1B (2x): Female/male, black / no name

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1. How likely do you think you would go on a date with this person? (5-point Likert scale)
2. How likely do you think this person has the same ethnicity as yours? (5-point Likert scale)
3. How attractive do you think this person is? (5-point Likert scale)

**Manipulation 2A (2x):** Female/male, black /non Dutch name
1. How likely do you think you would go on a date with this person? (5-point Likert scale)
2. How likely do you think this person has the same ethnicity as yours? (5-point Likert scale)
3. How attractive do you think this person is? (5-point Likert scale)

**Manipulation 2B (2x):** Female/male, black / Dutch name
4. How likely do you think you would go on a date with this person? (5-point Likert scale)
5. How likely do you think this person has the same ethnicity as yours? (5-point Likert scale)
6. How attractive do you think this person is? (5-point Likert scale)

**Manipulation 2C (2x):** Female/male, white / Non Dutch name
4. How likely do you think you would go on a date with this person? (5-point Likert scale)
5. How likely do you think this person has the same ethnicity as yours? (5-point Likert scale)
6. How attractive do you think this person is? (5-point Likert scale)

**Manipulation 2D (2x):** Female/male, white / Dutch name
1. How likely do you think you would go on a date with this person? (5-point Likert scale)
2. How likely do you think this person has the same ethnicity as yours? (5-point Likert scale)
3. How attractive do you think this person is? (5-point Likert scale)

Additionally, please answer these final questions (5-point Likert scale):
1. I know a lot of people with different ethnicities than mine.
2. I live, or have lived, in an area where I interact with people with different ethnicities than mine.
3. I interact with people from different ethnicities on a daily basis.
4. I went to a high school where I interacted with students with different ethnicities than mine.
5. My friends or family would approve if I dated or married someone who has a different ethnicity than mine.

You’ve reached the end of this questionnaire.

I would like to thank you again for your time and valuable contribution. With your participation in this experiment you’re helping me gaining more insight in interracial relationships and behavior. These insights can be used to create a better understanding of intra- and interracial dating, and with that a better social-demographic society.

If you have any questions, feedback or reactions on this experiment please do not hesitate to contact me on s.stam@student.vu.nl.

Also, if you’re interested in the results of this study please contact me accordingly.

With kind regards,

Stephanie Stam
Student Communication Science at VU University
Manipulation 1A (2x): Female/male, white / no name
Manipulation 1B (2x): Female/male, black / no name
Manipulation 2A (2x): Female/male, black /non Dutch name
Mustafa
Manipulation 2B (2x): Female/male, black / Dutch name
Manipulation 2C (2x): Female/male, white / Non Dutch name
Karim
Manipulation 2D (2x): Female/male, white / Dutch name
Daan
Appendix B: Used statistical methods and preparation of the data

Since this study needed such a comprehensive preparation of the data before being able to actually perform to necessary analyses, this chapter is built to provide the reader with more insights in the context of reproducibility. With the use of SPSS Statistics 23, all data has been cleaned and prepared for further analysis. The missing values were removed and the data recoded into orderly variables special for within-analyses. In order to correct as much as possible for personal preferences, a total of 2 pictures was shown in each condition, coming down to a total of 12 pictures for each sex (2x (2x3)). For starters, new variables were created containing the means of every condition per sex, coming down to a total of 6 variables per sex. For example, the female stimuli section would be: white female without a name, white female with a non-Dutch name, white female with a Dutch name, non-white female with no name), non-white female with a non-Dutch name and non-white female with a Dutch name. These variables are the dependent variables that are to be compared in further analyses. The descriptive statistics for the likelihood of going on a date were calculated for all the stimuli’s ethnicity and name conditions. Please see table 2 and 3 for the results. The assumption for normality was met as the skewness and kurtosis are mostly between -2 and 2. In order to be able to answer hypothesis one, two dummy variables were created measuring one’s ethnicity (1 = Western, 0 = all other and vice versa). After this, 12 new variables were created per sex by multiplying these aggregate measures. To answer the hypotheses about moderation, 9 dichotomous variables were created to measure the effects of interracial contact and motives for Tinder use. Accordingly, the mean averages for all female and male stimuli were computed per white and non-white stimuli. These new variables will allow using the statistical methods of a paired T-test (H1, H2), MEMORE (H3, H4, H7, H8) and repeated measures (H1, H2, H5, H6).

Table 2
Descriptive statistics male stimuli, dependent variable: likelihood of dating

<table>
<thead>
<tr>
<th></th>
<th>White + no name</th>
<th>White + non-Dutch name</th>
<th>White + Dutch name</th>
<th>Non-white + no name</th>
<th>Non-white + non-Dutch name</th>
<th>Non-white + Dutch name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>2.29</td>
<td>2.34</td>
<td>2.57</td>
<td>1.79</td>
<td>1.53</td>
<td>1.56</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>1.10</td>
<td>1.11</td>
<td>1.16</td>
<td>.89</td>
<td>.80</td>
<td>.79</td>
</tr>
<tr>
<td><strong>Skewness</strong></td>
<td>.52</td>
<td>.37</td>
<td>.17</td>
<td>.1.02</td>
<td>1.55</td>
<td>1.54</td>
</tr>
<tr>
<td><strong>Kurtosis</strong></td>
<td>-.85</td>
<td>-.88</td>
<td>-.106</td>
<td>.42</td>
<td>1.75</td>
<td>2.19</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>196</td>
<td>196</td>
<td>196</td>
<td>196</td>
<td>196</td>
<td>196</td>
</tr>
</tbody>
</table>

*Note. Conditions ethnicity = (white/non-white) and name = (no name/Dutch name/non-Dutch name)*
Table 3

Descriptive statistics female stimuli, dependent variable: likelihood of dating

<table>
<thead>
<tr>
<th></th>
<th>White + no name</th>
<th>White + non-Dutch name</th>
<th>White + Dutch name</th>
<th>Non-white + no name</th>
<th>Non-white + non-Dutch name</th>
<th>Non-white + Dutch name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>2.79</td>
<td>3.32</td>
<td>3.78</td>
<td>2.36</td>
<td>1.73</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>1.04</td>
<td>.82</td>
<td>1.11</td>
<td>1.05</td>
<td>.80</td>
<td>.91</td>
</tr>
<tr>
<td><strong>Skewness</strong></td>
<td>.13</td>
<td>-.17</td>
<td>-.90</td>
<td>.46</td>
<td>1.09</td>
<td>.91</td>
</tr>
<tr>
<td><strong>Kurtosis</strong></td>
<td>-.83</td>
<td>-.19</td>
<td>.14</td>
<td>-.75</td>
<td>.66</td>
<td>.93</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>134</td>
<td>134</td>
<td>134</td>
<td>134</td>
<td>134</td>
<td>134</td>
</tr>
</tbody>
</table>

*Note. Conditions ethnicity (white/non-white) and name (no name/Dutch name/non-Dutch name)*