Online dating in New Zealand: Why and how do people use Tinder?

By

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Contents

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Abstract

Online dating is becoming increasingly popular all over the world. However there is a dearth of research investigating online dating in New Zealand. The research presented here explores the prevalence of online dating in New Zealand, examining motivations, attitudes and outcomes associated with online dating (Study 1). It also investigates mate selection in an online dating context using a simulation of the popular mobile dating app, Tinder (Study 2). In Study 1, students from Victoria University of Wellington completed a survey developed by the author along with scales measuring individual differences on ideal standards and sociosexual orientation. As predicted, Study 1 found that online dating is prevalent in this sample (especially using Tinder), attitudes towards it were generally positive, and those using it more were more likely to be single, more sociosexually unrestricted, and rate physical attractiveness as more important in potential partners. Study 2 investigated the use of Tinder more specifically through an experimental simulation of this mobile dating app. Participants were presented with series of attractive and unattractive faces and asked to indicate whether they would hypothetically seek further contact (click heart icon to the right of the face) or uninterested (click cross icon to the left of the face). Response times and selections were recorded. As expected, men selected more faces than women, and responded equally rapidly regardless of the attractiveness of the face. In contrast, women responded significantly faster to the unattractive faces than the attractive faces. Results were predicted and interpreted in light of parental investment theory and in the context of prior research on both online dating and speed dating.

General Introduction

The standard way of scoping out and meeting romantic partners is by meeting them at social events, work-place settings, or simply by accident. However, strategies designed to increase the pool of potential romantic partners to choose from have been in play for many years. The use of personal advertisements, along with matrimonial or dating agencies, for example, was commonplace by the 19th century and has continued to this day (Ridgway, 1805).

With accelerating advances in computer technology, the rise of the internet over the last two decades, and a natural human desire for romantic companionship, online dating (as it is termed) has added a powerful new method of increasing the pool of potential romantic partners (Finkel et al., 2012), and enabled a much faster process of selecting possible romantic partners to then contact. Initially, online dating consisted of read-only personal advertisements, then came algorithm-based matching websites, and finally the recent development of smart phone interactive mobile phone dating apps (Finkel et al., 2012). The current research deals with both the prevalence of internet dating in Wellington, New Zealand, as well as investigating some predictors of its use.

The use and popularity of smart phones has certainly soared. Schadler and McCarthy (2012) estimated that in 2016 there were, internationally, one billion smart phone owners. Easy access to the internet has seen the growth in availability of apps for these smart phones, including dating apps, increase even more dramatically. However, using the internet to find a potential partner was not always a respectable choice (Schalder & McCarthy, 2012). During the 1990s when online dating was just taking off, online daters were viewed by most as ‘desperate’ or ‘socially inept’ and user rate was low. Growth of the online dating pool relied to some extent on word-of-mouth, but the undesirable reputation of being an online dater

probably discouraged its use. For example, users from this period seldom told family or friends they were accessing online dating (Finkel et al., 2012).

The perceived risks associated with online dating also contributed to the low user rate; namely it was commonly feared that users may encounter a "psycho" or "creep". Additional concerns surrounded the deception that potentially comes with online dating, given that profiles can be easily exaggerated to make users more appealing (Finkel et al., 2012). By the 2000's the initial stigma associated with online dating was on the decline as the media portrayed online dating in a more positive light and online daters were more willing to disclose their use to friends and family, thus spreading the word (Finkel et al., 2012; Smith & Duggan, 2013). This, along with gradual social change, resulted in greater acceptance of online dating as a reasonable and respectable way to find a romantic partner (Finkel et al., 2012).

Online dating prevalence

Since the turn of the century there has been a substantial increase in the use of online dating. The 2013 Pew Internet and American Life Project (PIALP) reported that 1 in 10 American adults used an online dating website or mobile app (Smith & Duggan, 2013). This number has further risen to 15% having used online or mobile dating in 2015 (Smith, 2015). The PIALP also found that 29% of the 2252 individuals surveyed knew someone who was using online dating to find a long-term partner. This was almost double the finding of 15% in 2005 (Smith & Duggan, 2013). Brym and Lenton (2001) reported that in the year 2000 the seven largest online dating websites claimed a combined 12 million users. In 2003, nearly 40 million individuals reported using an online dating website in the United States alone (Barraket & Henry-Waring, 2004).

Research also suggests the growing prevalence of online dating use is international. In 2008, Germany claimed an estimated 54 million online dating members using their 2000 online dating agencies (Aretz, Demuth, Schmidt & Vierlein, 2010). Within a 2007 Dutch

sample of internet users, 43% had visited an online dating website and 33% had posted at least one profile on one such website (Valkenburg & Peter, 2007). Grehan (2015) was interested in online dating use and age in an Irish sample finding 61% of older individuals and 36% of younger individuals reported experience using online dating. Higher numbers of individuals reported knowing someone who used online dating – 91% in the older group and 84% in the young group (Grehan, 2015).

Much of the online dating literature attributes the surge in online dating use to the rise in internet accessibility and use. Use of online dating is positively associated with computer literacy and access to the internet, so it is not surprising that online dating use has grown with internet user rate (Sautter et al., 2010). The number of internet users worldwide grew from 40 million in 1996 to 375 million in the year 2000 (Brym & Lenton, 2001). More recent numbers from InternetWorldStats.com show that as of June 2016 about 50% of the world's population (half of over 7 billion people) are internet users – greater than 900% growth since the year 2000. Internet use is now commonplace, and its use for accessing social media and "googling" advice is not just socially accepted, it is an everyday practice for much of the world. Similarly, it is now also commonplace to use the internet to find love (Sautter et al., 2010). I expected in the current research to find high rates of usage of online dating in a sample of students in Wellington, New Zealand.

The widespread shift in attitude towards online dating has coincided with climbing online dating user rates. In 2013 the PIALP found that fewer people (21%) agreed online daters are desperate compared with 2005 PIALP reports (29%), and more respondents agreed online dating is a good way to meet people (59%) and allows people to find a better match than traditional offline dating (53%) compared with earlier reports in 2005 (44% and 47% respectively) (Smith & Duggan, 2013). However, online daters themselves view online dating in an even more positive light compared with non-online daters. Of the online daters in the 2013 PIALP, 79% agreed online dating is a good way to meet people, 70% agreed it helps

people find a better match, and only 13% agreed it was used by the desperate (Smith & Duggan, 2013). Thus there appears to be a clear link between attitudes and behaviour for online dating. I predicted in the current research that more positive attitudes would predict higher rates of usage in online dating.

The literature also suggests online dating has increased due to demographic changes (Brym & Lenton, 2001; Sautter et al., 2010). Specifically, single people make up a growing proportion of the population, with many more divorced singles, and therefore increasing numbers of people searching for a partner (Brym & Lenton, 2001). As one would expect, single people are more inclined to use online dating than those in relationships. The 2013 PIALP reported that 38% of Americans who are single and looking for a partner have used online dating compared to the 1% of those in ten-year or longer committed relationships or marriages who have used online dating (Smith & Duggan, 2013). Additionally, being divorced and single are predictors of being an online dater (Brym & Lenton, 2001; Sautter et al., 2010). It is possible more singles are turning to online dating due to ease and accessibility of use (Chan, 2016). Increased work pressures, such as working overtime and travelling, limits time for dating and forming romantic relationships using traditional methods, thus the convenience online dating may be appealing to singles looking to date (Brym & Lenton, 2001). Around one third of the IPALP 2013 respondents agreed one of the main reasons they use online dating is because their schedule makes meeting interesting people in other ways more difficult (Smith & Duggan, 2013). Additionally, the increased sensitivity surrounding sexual harassment in the workplace leads to a reduced traditional dating pool (Brym & Lenton, 2001). I expected in the current study that usage would be higher for singles than those in existing romantic relationships.

Mobile phone dating apps

Smart phones, and with them smart phone apps, became increasingly popular after the release of the second generation Apple iPhone in 2008 (Finkel et al., 2012). There are now millions of different types of mobile phone apps available for Apple iPhones and other smart phones. Among these are mobile dating apps, where users can pick and choose from a wide range of dating apps for nearly every type of relationship or partner desired. For example, Trippple is a mobile dating app for "adventurous couples" and "open-minded singles" looking for threesomes. For those willing to leave it up to fate, Align is a dating app that uses astrology and algorithms to "align" users based on their chosen emoji (a digital icon expressing emotion), star sign, and star sign traits – users receive "a daily constellation of singles".

The widespread popularity specifically of smart phone apps appears to be having a substantial impact on the overall increased use of online dating prevalence. The 2015 PIALP reported use of mobile dating apps had increased three-fold since 2013 contributing substantially to the 15% overall prevalence of online and mobile dating use, while nonmobile online dating use had risen at a slower pace from 9% to 12% since 2013 (Jung, Umyarov, Bapna & Ramaprasad, 2014; Smith, 2015). There are many advantages to using mobile dating apps over online dating websites, such as portability and location-based features which means users have instant access to a wider range of potential partners in their area. The additional simplified design makes them more convenient and user-friendly than online dating websites.

Mobile dating profiles typically do not require as much investment or maintenance as traditional dating websites, which often require users to complete a lengthy and detailed questionnaire upon registration. Tinder, a very popular mobile dating app, allows users to create a profile through an existing Facebook account, thereby having all their profile

information collected by the app. Profiles are also less detailed on dating apps as opposed to dating websites. On Tinder, profiles consist of a picture (with the option to add up to five more pictures), first name, age, distance from other users (controlled by the user), and an optional short biography. Furthermore, simplified profiles lead to more efficient searching and evaluation of others' profiles. Users can filter the potential partners presented to them on the app by age, gender, and distance from them. Profiles presented can then be 'swiped' right for yes and left for no, one after another.

By contrast, online dating profiles give a lot more detail. Profiles on Match.com for example, present users with a photograph, detailed demographic information (e.g. age, blood type, smoker or non-smoker), lengthy biographical information, and what they are looking for in a partner. Inevitably then, searching and evaluating other users' profiles can take a lot of time. Frost, Chance, Norton and Ariely (2008) found that online daters using websites spend a reported 5.2 hours searching through profiles and a further 6.7 hours writing and responding to emails giving a total of 11.9 hours per week. Therefore, given the general ease of use and consistent with its high public and media profile, I expected that Tinder would be the most popular online dating app in the current research.

Who uses online dating?

Typically, as noted, being older, single, having access to the internet, and holding more positive attitudes towards online dating are associated with increased online dating use (Brym & Lenton, 2001; Daneback, 2006; Finkel et al., 2012; Rappleyea Taylor & Fang, 2014; Sautter et al., 2010; Smith & Duggan, 2013; Valkenburg & Peter, 2007). I expected to find the same results, with the exception of age, as the variability on this aspect was low in the sample used. As previously established, having access to the internet is clearly associated with a higher likelihood of using online dating. It is also clear from current statistics that much of the world now has access to the internet, gradually closing the 'digital divide', so it

is likely that internet users are now reasonably representative of the population (Brym & Lenton, 2001; Valkenburg & Peter, 2007).

Research on gender differences in online dating use is mixed. Some research has found more males use online dating than females, while others have found no gender differences in likelihood to use online dating. Brym and Lenton (2001) reported that 37% more men use online dating services than women. Cooper, Mansson, Daneback, Tikkanen and Ross (2003) found men report using the internet to find a partner more often than women. Within a United States university sample, men were significantly more likely than women to have regularly used an online dating app (Rappleyea et al., 2014). These gender differences in the literature may, however, be a result of higher online dating activity by males (e.g. simply viewing profiles) rather than a higher likelihood of being an online dater (going on to make contact with potential partners).

This latter explanation is supported in a recently published meta-analytic study on gender differences in online dating use (Abramova, Baumann, Krasnova & Buxmann, 2016). This study found that females are just as likely to use online dating as males, but males and females differ when it comes to online dating interaction, behaviour, and motivations (Abramova et al., 2016). Similarly, Valkenburg and Peter (2007) found higher reports of profile visits by males than females but no difference between genders for frequency of posting profiles. Findings from Sautter et al. (2010) showed that the association between being male and having tried online dating can actually be explained by internet accessibility and relationship status. That is, males were more likely to have tried online dating because they were more likely to be single and have greater access to the internet. Given the mixed evidence, I make no predictions for gender and online dating use.

The sample in the current study is not representative of the population as it is mainly made up of university students. However, studies looking at age show there is increased

prevalence of use of mobile dating apps, such as Tinder, among the younger generation (Ligtenberg, 2010). In fact the vast majority of Tinder users in a United States sample appear to be in the 18 to 24 age bracket (Braziel, 2015). Individuals between 18 and 24 years are among the demographic more likely to have a Facebook account, which is a requirement for joining Tinder, so mobile dating options such as Tinder may be more accessible to the general younger population.

Motivations for online dating use

Just as there is a diverse range of individuals who use online dating, the types of relationships which motivate its use also vary. That is, not every online dater is interested in finding a serious dating or marriage partner when joining online dating. Online daters mostly report using it to meet people or go on dates (Brym & Lenton, 2001). Stephure, Boon, MacKinnon and Deveau (2009) found that between 76% and 82% of their sample reported seeking a dating partner or just someone to talk to through online dating. Online daters also often report using it for non-relationship related reasons such as to have fun or to pass the time (Ligtenberg, 2015; Stephure et al., 2009).

However, individuals generally join online dating with the intention of finding a romantic long-term or marriage partner (Brym & Lenton, 2001; Valkenburg & Peter, 2007). Forty-six percent of online daters in the 2013 PIALP reported that a major reason they joined online dating was to find a long-term or marriage partner (Smith & Duggan, 2013). Casual sexual relationships are also pursued through online dating. Indeed the existence of the internet itself may have increased the number of sexual encounters (Couch & Liamputtong, 2008). According to Brym and Lenton (2001) 43% of online daters report using online dating to find sexual partners. Those seeking casual sex find the internet an efficient way to do so, meeting like-minded individuals (Couch & Liamputtong, 2008). Individuals seeking sex partners on the internet have sometimes been classified separately from online daters in the

literature (Chan, 2016), and there are websites and apps specifically catering to this clientele (e.g. Be Naughty).

In general terms, it is clear that with popular apps like Tinder, users may be interested in either seeking casual sex or long-term relationships. Indeed, many individuals may be open to casual sex, while also being interested in forming a long-term relationship. In the current research I assessed the motivation for using dating apps in terms of seeking casual sex, longterm relationships, and friendships. I had no specific predictions concerning the outcomes, but suspected that motivations for seeking casual sex and long-term relationships would be equally strong.

In the current research I also expect individuals more motivated to use online dating for casual sex to be more unrestricted in sociosexual orientation. Sociosexually unrestricted individuals are more open to engagement in uncommitted sexual relations while, at the other end of the spectrum, sociosexually restricted individuals require love, investment and commitment before engaging in sexual relations (Simpson & Gangestad, 1991). While sociosexuality has not been directly used as a predictor for online dating usage previously, given that unrestricted sociosexual individuals are more interested in pursuing short-term relationships (Simpson & Gangestad, 1991) I expected that they would be more inclined to join for casual sex than their counterparts.

As with offline dating, prior research has found clear-cut differences between men and women when it comes to the motivations for online dating. Specifically, men seek casual sex or more variety in sexual partners than women who are more interested in finding regular dates and companionship (Cooper et al., 2002; Menkin, Robes, Wiley & Gonzaga, 2015). More than half the men in Brym and Lenton's (2001) sample reported using online dating to find sex partners, whereas only 20% of women in the sample reported this. In contrast, many more women than men reported using online dating to flirt and chat but nothing more (Brym

& Lenton, 2001). Consistently, men are more likely than women to lie about their intentions for using online dating, specifically, implying the desire for a long-term relationship when in reality wanting short-term sex (Hall, Park, Song & Cody, 2010). These findings are supportive of the idea that men are more interested in short-term relationships than women (Clark & Hatfield, 1989). In the current research I expected to find the same pattern of sex differences, with men being more strongly motivated then women by the goal of having casual sex.

Outcomes of online dating use

While individuals may be interested in pursuing relationships of one sort or another, whether online dating successfully helps them achieve this is another story. Most online daters do eventually meet up with at least one person through use of online dating (Rosenfeld & Thomas, 2012; Smith & Duggan, 2013). Brym and Lenton (2001) found that a third of online daters had not met face-to-face with anyone but nearly half had met up to five individuals. Few of these meet ups, however, end in marriage or long-term relationships (Brym & Lenton, 2001; Smith & Duggan, 2013). I expect to find similar rates of success (forming relationships and having casual sex through online dating use) but this remains an open question due to differences in samples.

Mate selection, ideal standards, and online dating

The general and well-replicated finding in offline dating is that men prefer physically attractive mates while women prefer mates with a higher income over physical attractiveness (Hitsch, Hortaçsu & Airely, 2010; Menkin et al., 2015). These gender differences can be explained from an evolutionary standpoint through parental investment theory. In humans females invest more than males in offspring with a minimum investment of nine months pregnancy and generally greater investment once offspring are born (Buss, 1989). Due to this greater investment females have evolved to become more attracted to males of higher status

and resources as such mates are better able to provide and protect offspring (Buss, 1989). Conversely, males have lower investment in offspring and can potentially have more offspring with several women, with limited investment. Thus, they are more concerned with the fertility (current probability of reproduction) and reproductive value (expected future probability of reproduction) of a mate (Buss, 1989). As indicators of fertility and reproductive value are physically present (e.g. waist-to-hip ratio, youth) these physical characteristics have become attractive to males (Buss, 1989).

However, despite men typically preferring physically attractive mates more than women do, physical attractiveness in a mate is important to both sexes. Indeed, the gender differences in mate preferences just described are absent early on in mate selection or when there is a short-term goal in mind (Li et al., 2013). In both cases, physical attractiveness becomes the most prefered trait when selecting a partner. When meeting someone for the first time and little information is known (or available) about the individual, physical attractiveness provides immediate and accurate information concerning mate value (Fletcher, Kerr, Li & Valentine, 2014; Lenton & Francesconi, 2010). In speed dating studies, where individuals rely on short encounters to decide whether they want further contact with their speed dating partners, physical features such as BMI and height are more highly attended to and perceived as more important than characteristics such as education or occupation (Lenton & Francesconi, 2010). Furthermore, Fletcher et al. (2014) found that after ten minute conversations between strangers, participants judged physical attractiveness more accurately than characteristics relating to warmth or status, and relied on these former judgments in making decisions about further contact.

Physical attractiveness is thus an obvious focus in the design of mobile dating apps (Kao, 2016). For instance, Tinder is designed in such a way that users are presented with a display photo of other users and base their decisions on such images or tap on the image to potentially view more photos and a short biography, if the user has included one. Similar to

speed dating, Tinder users are provided with little information about other users and physical attractiveness is the central focus of the design and is by default the only information available with regard to mate value. For the current research, I expect physically attractive potential mates to be strongly preferred over physically unattractive potential mates by both males and females in a Tinder simulation.

Parental investment theory can again be drawn upon to explain the gender differences found in mate choice. Parental investment theory predicts that, given females endure higher investment costs, they should be choosier and more cautious than males in initial mate choice (Buss, 1989; Fletcher, Simpson, Campbell & Overall, 2013). Indeed, women have higher minimum standards than men regarding potential mates (Fletcher et al., 2014). These differences in standards between men and women are reflected in online dating. Women send fewer messages and receive more matches than men in online dating – particularly on mobile dating apps (Jung et al., 2014). In addition to sending more messages, men more often do not get a reply to messages sent (Jung et al., 2014). This has also been reflected in speed dating studies. For example, a meta-analysis of speed dating studies by Fletcher et al. (2014) found that male participants requested contact details of female participants more often than the converse. I expected to find the same pattern of gender differences in mate choices in a simulation of Tinder; namely, men should register more "likes" than women.

The current research

Research presented here seeks to explore whether the increasing prevalence and popularity of online dating applies in New Zealand, while also striving to understand the motivations, attitudes towards, and outcomes of use (Study 1). Psychology students at Victoria University of Wellington took part in an online questionnaire developed by the authors. To explore potential predictors of online dating use, pre-existing scales were included in the questionnaire measuring ideal standards and sociosexuality. Demographic information such as gender, age and relationship status was also collected.

To gain further insight into how individuals use online dating and extending the research on mate preferences and selection, in a second study (Study 2) I examined actual dating decisions and mate preferences in a mobile dating context. Specifically, I recorded dating decisions in an experimental simulation of Tinder. In the simulation, participants indicated their romantic interest or disinterest in series of images of individuals presented (either attractive or unattractive). Their decisions (liking or passing) and the time taken to make each decision (reaction time) were recorded. To predict these decisions participant age, gender and relationship status were measured. Additional information on ideal standards, self-perceptions, and sociosexuality, was also gathered from a short survey using pre-existing scales.

Study 1

Introduction

Study 1 explores the prevalence and motivations of online dating use and its predictors, using a sample of students and other young people from Wellington, New Zealand. The growing prevalence of online dating has been documented in a number of countries across the world (e.g. Holland, United States of America, Germany), but there is little research to show that this is also the case in New Zealand. The surge in popularity of online dating has been partly attributed to the globally increasing access to the internet (Sautter et al., 2010). Given that internet access and usage is commonplace in New Zealand, I expect to find online dating use to be prevalent within the Study 1 sample, reflecting the figures found in other countries.

Attitudes towards online dating have also been noted as playing a key role in the rise of online dating. The gradual shift from less to more favourable attitudes towards online dating has corresponded with the rise in online dating use. Therefore, I expect to find an association between holding more positive attitudes towards online dating and more frequent online dating use.

Perhaps also contributing to its rising popularity, online dating is a more convenient alternative to traditional offline dating and provides users with many potential partners they might otherwise not have met. With increased career pressure and little time to meet new potential mates, many single individuals have thus turned to online dating to meet potential partners (Brym & Lenton, 2001). In Study 1, I expect that more frequent users of online dating will be more likely to be single than in a relationship.

Research has indicated that intentions to pursue long-term relationships and casual sex through online dating use are common motivations for using or joining online dating (Bym & Lenton, 2001). I predict that the motivation to join online dating for a serious

relationship will be just as strong as the motivation to join for casual sex. One clear pattern from prior research is that males seem more interested in joining and using online dating for casual sex compared to females. This is also consistent with parental investment theory which poses that men should be more inclined towards short-term relationships (Buss, 1989; Li et al., 2013). Therefore, I predict that men will report joining for casual sex significantly more often than women.

Online dating seems to be a successful way of meeting new people; however, forming on-going relationships from such meetings is another matter (Bym & Lenton, 2001; Vlakenburg & Peter, 2007). I expect a reasonable proportion of the sample will have met someone through online dating but, consistent with the online dating research, the formation of serious relationships produced should be a much rarer event. However, the nature of the sample (university students) needs to be taken into account, as it differs from other studies discussed previously that have used more representative samples. Therefore, investigating the outcomes of online dating use in the current study is exploratory.

I was also interested in the online dating websites or mobile dating apps most commonly used in New Zealand. I expect Tinder will be the most frequently selected of the options surveyed, as it is widely known and mentioned in the media. Additionally, the use of apps such as Tinder are more common among young people according to prior research (e.g. Smith & Duggan, 2013).

Method

Participants

A total of 362 individuals (106 male, 256 female) participated in Study 1. One hundred and thirty-seven participants (58 male, 79 female) were first year psychology students recruited through the Introduction to Psychology Research Programme (IPRP) at Victoria University of Wellington. An additional 225 (48 male, 177 female)

second year psychology research methods students were recruited and make up the remainder of the sample. Participant ages ranged from 17 to 59 years of age (M = 20.36, SD = 4.35). Just over half (189) of the participants reported being single with the remaining 173 in relationships, either: dating (132), living together (36), or married (5).

For participation, the first year IPRP students were rewarded 0.5 credits toward their introductory Psychology course and the second year research methods students were rewarded a $10 supermarket voucher.

Materials

Prevalence of online dating. A survey was constructed to assess the use, outcomes, motivations, and attitudes towards online dating. *Online dating* refers to any internet dating websites or mobile dating apps (see Appendix B for the full survey).

Frequency. Five of the total items examine frequency of online dating use. Two of these five items measure actual time spent using online dating. One item asks, "how often have you used online dating in the last year?" and the second items asks, "how much time do you spend using online dating in one sitting when you do use it, on average?" Seven possible responses could be chosen for item one (*never, once, more than once, every month, every week, every day, multiple times a day*) and item two (*never, less than ten minutes, 10-20 minutes, 20-40 minutes, 40-60 minutes, 60-90 minutes, two hours or more*) ranging from 1 to 7 respectively. These two items correlated highly and significantly (r = .65) and thus were combined to create the Frequency of Use construct. Scores for both items were averaged to obtain an overall score. More frequent use of online dating is indicated by higher scores and less frequent use is indicated by lower scores. With respect to the frequency analysis for frequency of use, frequency of use item 1 was recoded into nominal data (*1 = never, 2 = have used*).

Participants were asked to respond how often, if ever, they have used specific online dating websites and/or mobile dating apps. Altogether there were 37 to choose from (see Appendix B). The selected online dating websites and apps were included on the basis of popularity both internationally and in New Zealand. They were sourced from a number of websites[1]. Responses ranged from 1 (*never*) to 7 (*multiple times a day*) as used for the frequency of use in the last year item (above). For statistical analyses the items were recoded into nominal data where 1 represents *never* and 2 represents *used*. Therefore a score of 2 indicates the online dating website or mobile dating app has been used and a score of 1 indicates it has never been used.

Success. Five items measured the 'successfulness' of use or outcomes of using online dating. These items enquired about the number of individuals met in person through online dating, "in the last year how many times have you met with someone through communicating with them via online dating?", number of times meeting with the same person, "in the last year…met with the same person (or persons) through communicating…", and the nature of the relationships with these individuals, "in the last year how many times have you had a [one night stand/short-term fling/serious relationship/non-romantic friendship] with someone having met them via online dating?" For all items there were seven possible responses to choose from (*never, once, twice, three times, four times, five times, six or more times*) ranging from 1 to 7 respectively. As with the use of specific dating websites responses, responses to the five success items were recoded into nominal data (*1 = never, 2 = have met*). Higher scores correspond with more frequent occurrences of meeting with a person or having met more people through online dating, and lower scores indicate a lower rate of meeting people through online dating use.

[1] Websites retrieved May, 2016 from http://www.nzdatingwebsites.co.nz/, http://www.top10nzdatingsites.co.nz/?campaignid=226801718&adgroupid=16974961598&network=g&creative=56510716598&keyword=dating%20websites%20in%20nz&matchtype=p&adposition=1t1&device=c&gclid=CJSSk9C6iswCFYSVvAod_mYHrg, and http://www.datingnz.net.nz/apps/

Attitudes. Three items were created to measure attitudes towards online dating use including safety, positivity, and effectiveness, "online dating is a [safe/positive/effective] way to meet people." Participants responded on a seven-point Likert scale (*1 = unsafe/negative/ineffective, 7 = safe/positive/effective*). The three attitude items correlated highly and significantly with one another: safe and positive, $r = .52$, $p < .001$, safe and effective, $r = .35$, $p < .001$, positive and effective, $r = .41$, $p < .001$. They were thus combined to create the construct Attitudes towards Online Dating. Individual scores for each item were averaged resulting in a single score for each respondent under the Attitudes construct. Higher scores on this construct indicate more affirming attitudes towards online dating.

Motivation. Motivations for joining an online dating website or mobile dating app were examined using three items. These items asked the participant to indicate to what extent they joined online dating for casual sex, a serious dating relationship, and/or a non-sexual friendship. Participants responded by rating each option on a seven-point Likert scale ranging from strongly disagree (*1*) to strongly agree (*7*) and were also presented with an eighth option "not applicable" as they may have joined online dating but not for that reason. Those who selected this option were marked as missing data. Therefore for each item higher scores indicate a higher likelihood that the respondent joined online dating for that reason.

Ideal standards. Fletcher, Simpson, Thomas and Giles (1999) developed the Ideal standards scale from three major mate preference characteristics (warmth/trustworthiness, attractiveness/vitality, status/resources). Here, I used a shortened version containing a total of 17 items divided into the three categories. Six make up the warmth/trustworthiness category: kind, supportive, understanding, considerate, sensitive, and good listener. Another six form the attractiveness/vitality category: sexy, nice body, attractive appearance, good lover, outgoing, and adventurous. The status/resources category contains only five items:

successful, nice house or apartment, financially secure, dresses well, and good job. For the status/resources category, each item is followed by "or potential to achieve". Fletcher et al. (1999) introduced this parameter in light of the low level (and little variance) of existing status and resources among student populations. Participants rated each factor according to its importance in describing their ideal partner in a close relationship (including dating, living together, or married). Each item is rated on a Likert scale between 1 (*very unimportant*) and 7 (*very important*). Traits that are considered desirable in an ideal partner will be indicated by higher scores in the corresponding category (warmth/trustworthiness, attractiveness/vitality, status/resources). All three scales have demonstrated good internal reliability in previous research (see Fletcher et al., 1999; Fletcher, Tither, O'Loughlin, Friesen & Overall, 2004). In the current study, the three scales also achieved good internal reliability: warmth α= .96, attractiveness α= .85, status α= .86.

Sociosexuality. Developed by Simpson and Gangestad (1991) the Sociosexual Orientation Inventory (SOI) measures sociosexual orientations (restricted/unrestricted) using eight items examining individual differences in terms of willingness to engage in sex without commitment or strong emotional bonding and number of sex partners. Three items enquire about participants' number of sex partners in the past year, number of one night stands, and an estimation of the number of sex partners they will have in the next five years. Responses can be typed by the participant into a provided space. One item measures frequency of extrarelational sexual fantasies for those currently in a relationship, that is, "how often do you fantasize about having sex with someone other than your current dating partner?" Participants can choose to respond from eight options (*never, once every two or three months, once a month, once every two weeks, once a week, a few times a week, nearly every day, at least once a day*) ranging from 1 to 8 respectively. The final three items measure attitudes towards casual sex, for example, "sex without love is OK". Responses were made on a seven-point Likert scale (*1 = strongly disagree to 7 = strongly agree*).

To get an overall SOI score, responses to all items were standardised, then averaged. Therefore, negative scores are below the mean (standardised mean = .00) indicating a lower SOI score and positive scores are above the mean and indicate a higher SOI score. Additionally, the magnitude of the number is indicative of how high or low an overall SOI score is. Individuals with higher SOI scores tend to hold more affirmative attitudes towards sex without commitment and report more sex partners. These individuals are considered to have an *unrestricted* sociosexual orientation. Fewer sex partners and less affirmative attitudes towards uncommitted casual sex score lower on the SOI and are considered to have a *restricted* sociosexual orientation. The SOI was shown to be internally reliable ($\alpha = .73$) during development of the scale by Simpson and Gangestad (1991). Although internal reliability appears lower in the current study, $\alpha = .67$, given the few items in the scale it is still considered internally reliable.

Procedure

Ethical approval was obtained by Victoria University of Wellington's School of Psychology Ethics Committee (SoPHEC). Participants were then recruited through the IPRP programme in the School of Psychology and from a second year psychology research methods course (PSYC232). IPRP participants could sign up for the study when the survey was made available to them on sona-systems. Similarly, PSYC232 participants were made aware of the survey via Blackboard, a course management system available to all PSYC232 students. To participate, all participants needed to follow a link to Qualtrics, a data collection website, where the survey was administered. Prior to the start of the survey, the online consent form and survey details were provided to participants (see Appendix A). They were made aware of the focus of the study, its voluntary nature, the approximate completion time (no longer than 30 minutes), and the compensation offered for participation. A yes or no option was provided whereby selecting *yes* meant giving informed consent and the survey could be accessed. The survey could only be accessed if informed consent was given so the

survey was not made available to those selecting *no*. The order of the scales was the same for all participants (i.e. prevalence of online dating, ideal standards, SOI). Preceding the scales, participant information (i.e. gender, relationship status, age) was collected. Additional questions and scales not used for the purposes of the current study were also administered and were presented in the same order for all participants. Following completion of the survey participants were debriefed (see Appendix C), thanked for their participation, and given instructions for how to obtain their reward.

Results

Initially in the first section of the results, I will report purely descriptive results for the key variables from the survey. Inferential statistical analyses (correlations and multiple regression analyses) testing predictions will be reported in the second section.

Descriptive results

All means and standard deviations can be seen in Table 1 and Table 2. Means for frequency of use show the sample had mostly either never used online dating or did so at least once in the last year and for less than ten minutes in one sitting. Over half of the total sample (53.3%) reported using online dating at least once in the last year. Attitudes of the sample were relatively positive about online dating, and motivations for joining online dating were strongest for developing a serious relationship, followed by looking for casual sex, and with a search for friendship having the lowest rated motivation. Consistent with previous research (e.g. Campbell, Simpson, Kashy & Fletcher, 2001), warmth/trustworthiness ideal standards were rated the most important in an ideal partner by the sample, followed by attractiveness/vitality and status/resources, respectively. Overall the sample showed a slightly restricted sociosexual orientation, with men revealing a more unrestricted sociosexual orientation while women reporting a more restricted sociosexuality.

Table 1. *Means and Standard Deviations of Online Dating Variables Split by Relationship Status and Gender*

		Male		Female	
	Overall Score	In relationship	Single	In relationship	Single
Frequency					
Frequency (year)	2.39(1.59)	1.89(1.43)	2.79(1.88)	2.02(1.34)	2.73(1.60)
Frequency (one sitting)	1.96(1.11)	1.70(.85)	1.87(.97)	1.86(1.16)	2.20(1.17)
Attitudes					
Attitude (total)	4.24(1.02)	4.30(.95)	4.31(1.85)	4.32(.95)	4.12(1.04)
Safe	3.84(1.24)	4.02(1.13)	4.08(1.31)	3.68(1.22)	3.81(1.26)
Positive	4.12(1.24)	3.98(1.32)	4.38(1.31)	4.24(1.14)	3.94(1.25)
Effective	4.77(1.44)	4.89(1.35)	4.44(1.66)	5.02(1.31)	4.62(1.44)
Motivation					
Casual Sex	3.60(2.00)	4.93(1.57)	4.56(1.84)	3.08(1.79)	3.07(1.98)
Serious Relationship	4.01(1.90)	3.83(1.71)	3.59(1.93)	4.18(1.98)	4.16(1.88)
Friendship	3.15(1.74)	2.88(1.61)	3.15(1.76)	3.46(1.91)	3.01(1.63)

Note. Figures are means, standard deviations are in parentheses. Frequency (year) = frequency of use item 1, frequency (one sitting) = frequency of use item 2, attitude (total) = attitude towards online dating construct.

Table 2. *Means and Standard Deviations of Ideal Standards and SOI Split by Gender*

	Overall score	Male	Female
Ideal standards			
Warmth	5.94(1.33)	5.48(1.52)	6.14(1.20)
Attractiveness	4.92(1.04)	4.94(1.31)	4.92(.90)
Status	4.50(1.16)	4.21(1.09)	4.63(1.17)

SOI			
Total	-.00(.74)	-.22(.58)	.09(.78)

Note. Figures are means, standard deviations are in parentheses. SOI means and standard deviations are in standardised form.

Around one third (32.6%) of the sample met someone through use of online dating. Slightly fewer (29.6%) met up with someone more than once through online dating. Of the types of relationships developed through use of online dating the sample reported creating a friendship the most often (23.2%) followed by short-term-fling (19.3%), one-night-stand (15.5%) and serious relationship (10.2%).

Table 3 contains the frequency of using websites in the last year by those in the sample who had used online dating in the last year ('online daters'). Of the 37 online dating websites (including mobile dating apps) that participants could select from, 28 had been used by at least one individual (presented in Table 3). As predicted the most popular website was Tinder with runners up OkCupid and Zoosk. Tinder was the only case where the majority of online daters (93%) reported having used it. The remaining websites were used by fewer than 10% of online daters in the sample.

Table 3. *Frequencies of Online Dating Variables*

	Never used	Used at least once in last year
Websites		
Tinder	9	180
OkCupid	161	18
Zoosk	168	9
Badoo	169	7
Grindr	171	7
Plenty of Fish	171	6
Dating NZ Singles	172	5
Find someone	173	5
Bumble	173	3
Skout	173	3
Elite Singles	174	3
NZ Dating	174	3
Coffee meets Bagel	175	2
eHarmony	175	2
Have a fling	175	2
Hinge	175	2
Match	175	2
NZ.Match	174	1
Tastebuds	175	1
Twosome	175	1
Be2	176	1
Dating Buzz	176	1
Hitch	176	1
How about we	176	1
Meet moi	176	1
NZ Personals	176	1
Singles Club	176	1

Note. Ranking is from most to least used online dating websites used by at least one member of the sample. Rankings are taken only from those in the sample who indicated they had used online dating in the last year (n = 193).

Correlations

See Table 4 for correlations between variables of interest and to test my predictions or investigate open-ended questions. As predicted, higher frequency of use was significantly associated with relationship status, sociosexuality, joining for a serious relationship, and attitudes towards online dating. Specifically, single and more unrestricted sociosexual individuals used online dating more frequently than those in relationships and more restricted individuals respectively. Those looking to join online dating for a serious dating relationship and those holding more positive attitudes towards online dating also used it more frequently.

Also consistent with predictions, joining online dating for casual sex was significantly associated with gender, sociosexuality, attractiveness ideal standards, and attitudes towards online dating. Individuals were significantly more inclined to agree that they joined online dating for casual sex if they were male, more unrestricted in sociosexuality, rated attractiveness as important in an ideal partner, and held more positive attitudes towards online dating.

Contrary to predictions, frequency of use was not associated with gender, and single individuals were no more likely than individuals in relationships to agree to join online dating for casual sex.

Table 4. *Bivariate Correlations Between Variables of Interest*

	1	2	3	4	5	6	7	8	9	10	11
1 Gender	–	-.20**	.08	-.04	.04	-.38**	.12	.04	.23**	-.01	.17**
2 SOI		–	-.13*	.16**	.31**	.35**	-.11	-.09	-.12*	.09	-.07
3 Relationship Status			–	.06	-.21**	.02	.03	.07	.02	.06	-.03
4 Attitudes				–	.23**	.31**	.22	.03	.06	.09	.00
5 Frequency of use					–	.04	.17*	-.09	-.07	.01	.04
6 Motiv. Casual Sex						–	.07	-.01	-.06	.14*	-.03
7 Motiv. Serious Rel.							–	.20**	.12	-.07	-.03
8 Motiv. Friendship								–	.06	-.22**	-.08
9 Ideal St. Warmth									–	.56**	.45**
10 Ideal St. Attractivness										–	.46**
11 Ideal St. Status											–

Note. Figures in the Table are Pearson's *r* correlations, * $p < .05$, ** $p < .001$, $N = 346$. Gender was coded, 1 = male and 2 = female, and relationship status was coded 0 = single, 1 = in relationship.

Additional correlations revealed individuals who rate attractiveness as more important in an ideal partner are significantly less likely to report joining online dating for a friendship. Correlations between motivations to join online dating (for casual sex, a serious relationship or friendship) were low ranging from -.01 to .20 suggesting individuals can have multiple motivations to join online dating (see Table 4).

Multiple regressions

Table 5 presents the results for the multiple regression analyses. After conducting the correlational analyses two simultaneous multiple regressions were carried out to predict: a) Frequency of use, b) Motivation: Casual sex. Gender, SOI and attitudes were selected as predictors for both analyses. Relationship status was an additional predictor for Frequency of use and attractiveness ideal standards was also a predictor for Motivation: Casual sex. This selection was based on both theoretical grounds and on the existence of significant zero-order correlations with the dependent variables. Frequency of use and motivations for joining online dating were the main dependent variables in this study.

The results (see Table 5) showed that four predictors (gender, relationship status, SOI, and attitudes) taken together accounted for significant variance in frequency of use, explaining 18% of the variance. Moreover, the Beta weights were consistent with my predictions. Specifically, more unrestricted individuals (SOI) used online dating more, when controlling for the other independent variables. Relationship status and attitudes towards online dating were also moderate predictors of frequency of use – singles used online dating more than those in relationships along with those holding more positive attitudes towards online dating. Gender was unrelated to frequency of use at the zero-order level, and was a very weak predictor (although significant) when controlling for the other independent variables. The relatively low zero-order correlations among the independent variables suggest

that multicollinearity is not a problem. In addition, the small drop in effect sizes for each of the independent variables, when comparing the zero-order correlations with the Beta weights, is consistent with the conclusion that the key independent variables independently predict frequency of use.

Table 5. *Multiple Regressions with Frequency of Use and Motivation for Casual Sex as Dependent Variables*

Variables		β	Zero-order
Frequency of use SOI			
		.27**	.31**
Attitudes		.21**	.23**
Gender		.10*	.02
Relationship status		-.21**	-.23**
R^2	.18*		
Motivation: Casual Sex SOI			
		.26**	.35**
Attitudes		.27**	.30**
Gender		-.32**	-.37**
Ideal standards: Attractiveness		.08	.14*
R^2	.30*		

Note. Figures in the Table are beta weights from multiple regression analyses, * $p < .05$, ** $p < .001$. Gender was coded, 1 = male and 2 = female, and relationship status was coded 0 = single and 1 = in relationship.

Gender, SOI, attitudes, and attractiveness ideal standards significantly predicted joining online dating for casual sex, altogether explaining 30% of the variance. Three of the four Beta weights were consistent with my predictions. Specifically, more unrestricted individuals reported they joined online dating for casual sex more strongly, when controlling for the other independent variables. More positive attitudes also predicted greater likelihood to join for casual sex when controlling for the other independent variables. Gender was the strongest predictor for joining online dating for casual sex when controlling for the other

independent variables, with men agreeing they join for this reason more than women. Inconsistent with predictions, having higher attractiveness ideal standards did not significantly predict joining online dating for casual sex, despite the significant relationship at the zero-order correlation level.

Discussion

The main findings of Study 1 support all predictions made and provide insight into the prevalence, motivations, and outcomes of online dating use in New Zealand.

As found in other countries and as predicted, online dating is prevalent in New Zealand. Around half the sample reported using online dating in the last year, so the use of online dating can be considered highly prevalent in New Zealand as prevalence levels exceed recent reports of use found in a young Irish sample (36%), and the United States (15%) (Grehan, 2016; Smith, 2015). The growing popularity of online dating is certainly evident in this New Zealand sample.

Despite a high prevalence of use, young online daters in Wellington, New Zealand are not very active users. Mean scores indicated that the sample mostly used online dating at least once in the last year and usually for less than ten minutes in one sitting. Previous research (Frost et al., 2008) has reported more frequent use from online daters – spending between 5 and 7 hours viewing profiles or sending messages. The low active usage found in in the current study may reflect use of a younger age group. The average age of the sample was 22 years with a limited range (*SD* = 4.23 years). Individuals of this age have larger friend groups than older individuals giving them more offline opportunities to find a partner. Stephure et al. (2009) found that younger individuals were more likely to use offline methods than online ones when searching for a partner. As online dating becomes increasingly more mainstream young people may be more open to experimenting with it but presently they more often

utilise their offline methods for meeting a mate thereby making them less active online dating users.

Similar to people from the United States, New Zealanders hold generally positive attitudes towards online dating use. Also consistent with United States research (see Smith & Duggan, 2013) and Study 1 predictions, these positive attitudes towards online dating were significantly linked to more frequent online dating use. These findings strengthen support for the notion that more favourable attitudes towards online dating are pivotal to its growing prevalence.

As expected, single individuals were found to be more frequent users of online dating than individuals in relationships. Existing research has also revealed that being single predicts being an online dater (e.g. Sautter et al., 2010) and this is supported by our research.

Males and females from Wellington, New Zealand used online dating a similar amount consistent with findings from Sautter et al. (2010) and Abramova et al. (2016). Although gender was found to be a significant predictor of online dating use, once variance was removed in the regression analysis, the Beta weight produced was very weak and small and is thus a probable outcome of suppression. However, similar to reports by Abramova et al. (2016), despite men and women being equally likely to use online dating, men and women differed in their motivations for joining online dating, in that, men were more motivated to join online dating for casual sex than women. This finding also supports the well-established notion that men are more interested in short-term, sexual relationships than women (Clark & Hatfield, 1989) and indicates further that they utilise online dating as a means for obtaining casual sex.

Along similar lines, being more sociosexually unrestricted was also a significant predictor of joining online dating for casual sex. This was the expected outcome as more

sociosexually unrestricted individuals tend to be more interested in pursuing short-term relationships (Simpson & Gangestad, 1991) so should be more inclined to utilise online dating to find casual sex. Additionally, sociosexually unrestricted individuals were also more frequent users of online dating than their more restricted counterparts. This suggests that while sociosexually unrestricted individuals frequently use online dating to find short-term relationships, sociosexually restricted individuals may use online dating methods less, may prefer offline methods, or may simply search less often for romantic partners.

Online daters in the current study were predominantly motivated to join for a serious relationship and used online dating more frequently the more motivated they were for this reason. This is reflected in findings from Smith and Duggan (2013) that almost a third of their sample used online dating to find a long-term or marriage partner. Interestingly, motivations to join for casual sex or a friendship were not associated with frequent online dating use. This pattern of findings could be the result of long-term relationships requiring more investment and commitment compared with short-term relationships (Fletcher et al., 2013). Given a greater level of associated commitment, individuals pursuing long-term relationships have higher standards, thus they would be expected to reject potential partners more often than those pursuing a short-term relationship. This may lead to a longer search and more frequent online dating use.

However, casual sex was still a strong motivation to join online dating. Furthermore, motivations to join were largely independent of one another, evident from the low, weak to non-existent correlations between the three motivations. This suggests that online daters can have more than one motivation to join online dating – that is, their motivation to join may be both casual sex and a serious relationship and they perceive that online dating can provide whatever relationship they are seeking. Research shows that mobile dating apps are often

used to find serious relationships as well as casual sex. Tinder was used by nearly all online daters in the sample while the remaining websites and mobile apps to choose from in the survey were used by less than 10%. Thus, Tinder in particular could be perceived to meet the needs of nearly all users irrespective of motivation. In the current study these are to, form a serious relationship, obtain casual sex, and to a lesser extent, develop a friendship.

In terms of actual outcomes from using online dating, my findings are consistent with online dating statistics (Brym & Lenton, 2001), with around one third of users meeting with someone through online dating use. Also reflecting prior research, only a small percentage of the sample reported actually forming a serious relationship through online dating use. Casual sex encounters (short-term fling or one-night-stand) were more frequent outcomes of online dating use than serious relationships. This may reflect the rising prevalence of hook-up culture among university students (Bradshaw, Khan & Saville, 2010) as our sample consisted of university students. Alternatively, there may be fewer serious relationships because longterm relationships take more time to develop than short-term relationships allowing shortterm relationships to occur more frequently (Paul, 2014).

Study 2

Introduction

Study 2 intends to further explore the nature of online dating use in New Zealand by examining mate preferences and dating decisions in an online dating context – specifically on a simulation of Tinder. Little research has been done on mate preferences and dating decisions on mobile dating apps. The simplified design of mobile dating apps (including Tinder), and the focus on physical attractiveness, makes them quite distinct from traditional online dating websites. In Study 2 participants respond to attractive and unattractive faces on an experimental simulation of Tinder, indicating whether they are romantically interested ("swipe" right) or uninterested ("swipe" left) in the face presented to them. Following this, they completed a short survey measuring ideal standards and sociosexual orientation.

Tinder dating decisions and partner preferences are probably more closely aligned with speed dating events in which decisions about future contact (swiping left to pass or right to like on Tinder) are largely dependent on the physical attractiveness of potential mates. I therefore predict that; attractive faces will receive a higher percentage of likes compared with unattractive faces. Given the clear importance of attractiveness on Tinder, I also predict that the more an individual considers physical attractiveness in a mate to be important, the more likely they are to prefer attractive faces to unattractive faces. Furthermore, because physical attractiveness is the dominant factor in initial mate-selection contexts, I predict that overall preferences for liking attractive versus unattractive faces will not be correlated with gender.

As parental investment theory suggests, males have lower minimum standards compared with females (Buss, 1989), and prior research has shown that males are less choosy than females. Therefore, I predict that males will have a higher overall percentage of like decisions compared with females. Furthermore, for females, the unattractive faces should be so clearly below the minimum standard for physical attractiveness that decisions to pass

should be made rapidly. By contrast the attractive faces should meet or exceed the physical attractiveness standard but the like/pass decision should require further contemplation (e.g. how kind or cruel do they appear?) given the increased investment risk associated with a like decision for women. Thus, I predict that female participants will have faster reaction times for the unattractive faces than for the attractive faces. For males, the minimum standard and associated risk of the like decision is much lower, so the like/pass decision would be applied with less discrimination between attractive and unattractive faces, hence like and pass decisions should take similar amounts of time. Therefore, I predict there will be no difference in reaction times by males for attractive versus unattractive faces.

Finally, physical attractiveness is more important to individuals who are more interested in short-term than long-term relationships (Li et al., 2013). Moreover, more sociosexually unrestricted individuals are more inclined to participate in short-term relationships (Simpson & Gangestad, 1991). Thus, I predict more unrestricted sociosexually orientated individuals (compared with more restricted individuals) will like the attractive faces more compared to the unattractive faces.

Method

Participants

One hundred and fifty (44 male, 106 female) psychology students from Victoria University of Wellington were recruited to participate. The age of the sample ranged from 18 years to 44 years (M = 22.31, SD = 4.82). Just under half the sample (48%) reported being single. The remainder were either in a dating relationship, living together, or married. Participation was restricted to heterosexual individuals due to the nature of study predictions and design. As a token of appreciation, participants received a $10 supermarket voucher.

Materials/apparatus

The study was carried out in a lab room in the Psychology department at Victoria University of Wellington. A maximum of 15 people could take part in one session so that each individual had one cubicle with a computer and chair to themselves. Computer screen resolution was 1024x768 pixels and the viewing distance between the screen and participant was approximately 50 centimetres.

Experiment. The computer-based programme E-Prime was used to run the experiment – a simulation of the mobile dating app Tinder. This was not a complete replication of Tinder but simulated the general goal and display of Tinder. The simulation display included the stimulus in the centre of the screen with a red 'x' to the left of the image and a green heart to the right of the image. The x and heart were each 118x113 pixels in size.

Stimuli. The stimuli used were images of human faces (attractive or unattractive looking males and females). These images were 400x400 pixels in size. They were initially obtained from Google Images. Prior to being used for this study, 115 face stimuli (54 male and 61 female) were rated by first year psychology students on the online computer programme Qualtrics. Thirty two males rated female faces and 36 females rated male faces. They were rated on a sliding scale ranging from 1 to 10 where ratings could be made to one decimal place. Higher scores indicated more attractive faces. The 16 highest rated and 16 lowest rated faces were selected from male and female images separately, making a total of 64 images. Female attractive faces had a mean of 7.81 (SD = .47), while male attractive faces had a mean of 6.74 (SD = .96). Female unattractive faces had a mean of 3.56 (SD = .29), while male unattractive faces had a mean of 2.15 (SD = .40). The attractive faces were rated significantly more attractive than the unattractive faces for both male faces $t(15) = 29.13$, $p < .001$, and female faces $t(15) = 22.67$, $p < .001$.

Survey. In addition to the experiment, a survey was administered (see Appendix E). The survey used in Study 2 has the same scales used in Study 1 excluding the Prevalence of Online Dating questions. As in Study 1, the survey was administered using the online survey programme Qualtrics.

Sociosexual orientation. The SOI developed by Simpson and Gangestad (1991) used in Study 1 was also administered to Study 2 participants to assess sociosexual orientation. Internal reliability analysis indicated the scale was reliable, $\alpha = .71$.

Ideal standards. The same ideal standards scale by Fletcher et al. (1999) used in Study 1 was also used in Study 2. In addition to partner and relationship ideal standards, selfperceptions on the same items were also measured. For the traits in each of the three categories (warmth/trustworthiness, attractiveness/vitality, and status/resources) participants were asked to rate how accurately each trait described themselves. Participants rated themselvres on a seven-point Likert scale as very inaccurate (*1*) to very accurate (*7*). Higher scores in each factor indicate that the corresponding trait more accurately describes the respondent. Both the ideal standards and self-perceptions scales showed good internally reliability in Study 2. Alphas for ideal standards were: warmth $\alpha = .92$, attractiveness $\alpha = .73$, status $\alpha = .88$. For self-perceptions: warmth $\alpha = .88$, attractiveness $\alpha = .76$, status $\alpha = .87$.

Procedure

Ethical approval was obtained from the School of Psychology Human Ethics Committee at Victoria University of Wellington. As in Study 1, Study 2 was made available to students on Blackboard where they could sign-up for a scheduled time to participate. Students were also provided with an information sheet and were prompted to read it before signing up. The information sheet (see Appendix D) gave details on the purpose of the study, what the study entails (i.e. experiment simulating Tinder, and a questionnaire), their token of appreciation

for participating ($10 supermarket voucher), privacy and confidentiality of their responses, and future use of the data collected. Participants could learn other study details such as its location and length of time it would take to complete.

Upon arriving to the experiment location but prior to participation, consent forms were distributed amongst participants to read and then sign if they agreed to participate. Information on the consent forms was identical to that on the information sheet. At this time each participant also received a unique subject number which they were told they would need to enter every time (twice) they were asked for their "subject number". If consent was granted, participants were told by the experimenter that the study is made up of two parts – the experimental phase first, then the survey phase – and that altogether it should take them 10 to 15 minutes to complete. Participants were then told they could begin.

Experimental phase. Details such as subject number, age, gender (male or female), and relationship status (single, dating relationship, living together, or married) were asked for before experimental instructions were displayed. Participants were advised to enter their unique subject number they had been given upon arrival into the box displayed. Gender determined whether participants would be presented with images of males or females. That is, male participants would be presented with images of female faces and female participants male faces.

Following this, participants were informed that the experiment is a simulation of Tinder, and given a brief description of what Tinder is and how it works. Experimental instructions came next informing participants that as on Tinder they would be presented with an image of an individual (in this case opposite-sex individuals only were presented) with a red 'x' on the left of the image and a green heart to the right of the image. By clicking on the

'x' they indicate that they are not romantically interested in that individual, and to show romantic interest they were to click on the heart – thus equating to 'swiping' left or right on an individual, simulating Tinder. They were told to use this simulation as though they were actually using Tinder (regardless of their relationship status) so I could measure their level of romantic interest in (i.e. whether they might date) the individuals in the images. Finally, they were advised there were no time restrictions on responding and that the image would be displayed until they responded.

Six trials made up the practise trials prior to real trials. Practise trials were identical to real trials with the exception that the images used were not used in the real trials. Images in practise trials were chosen at random from the remaining original 64 rated faces (6 male, 6 female).

Participants were reminded before starting the real trials that their responses would now be recorded, and that the red 'x' indicates no interest while the green heart indicates romantic interest. There were 32 real trials altogether, half of which were attractive faces and the other half unattractive faces. Participants were presented with attractive and unattractive faces randomly. The images were displayed until the participant responded and there was a 0.5 second delay between their response and the appearance of the next image. This was to allow the participants eyes time to readjust. Time taken to respond (milliseconds) and decisions made (like or pass) for each image by participants were recorded by E-Prime.

The completion of the 32 trials marked the end of the experimental phase. Participants were thanked for completing the experiment and were told they would enter the next phase – the survey phase. This was accessed by clicking the screen to close the experimental programme where the survey would become visible in the background ready to be started.

Survey phase. Initially, participants were prompted to enter the unique subject number they were given upon arrival so that experimental data and survey data could be matched up for analysis. Then ideal standards, self-perceptions, SOI, and PRQC scales were administered, in that order. Once completed, participants were advised that they had reached the end of the survey phase, concluding the study. Participants were debriefed (see Appendix F), they were thanked for their participation, provided with email addresses to contact with any queries concerning the study, and told they could collect their supermarket voucher for their participation. Participants received their $10 voucher and were thanked personally by the experimenter before leaving.

Results

Descriptive results

Means are slightly higher than in Study 1, but all three categories were still regarded as important in an ideal partner (see Table 6). As with ideal standards, self-perception means for all categories were well above the mid-point, demonstrating that respondents saw themselves as generally warm, attractive, and moderately high in status. Participants generally thought the warmth/trustworthiness category described them the most accurately, followed by status/resources, and attractiveness/vitality, respectively (refer to Table 6).

SOI. Unlike the sample in Study 1, Study 2 participants were mostly unrestricted in sociosexual orientation (see Table 6). As in Study 1, males reported being more unrestricted in sociosexual orientation (M = .21, SD = .58) while females reported being more restricted (M = -.08, SD = .59).

Table 6. *Means and Standard Deviations of Ideal Standards, Self-Perceptions and SOI*

	Mean	Standard deviation
Ideal standards		
Warmth/Trustworthiness	6.15	1.01
Attractiveness/Vitality	4.99	.79
Status/Resources	4.62	1.18
Self-perceptions		
Warmth/Trustworthiness	5.48	1.01
Attractiveness/Vitality	4.50	.91
Status/Resources	4.96	1.09
SOI		
Total	.01	.60

Note. Figures are means and standard deviations. SOI means and standard deviations are in standardised form.

Experimental results

To examine gender differences in dating decisions for attractive and unattractive potential mates, the proportion of likes versus dislikes across the rated stimuli were submitted to a 2(Gender: male and female) x 2(Attractiveness: attractive and unattractive) mixed ANOVA with repeated measures for Attractiveness (see Figure 1). Analyses revealed significant main effects for both attractiveness and gender in the predicted directions. As predicted, the attractive faces (M = 69.70) received a larger proportion of likes than unattractive faces (M = 9.92), $F(1, 148) = 741.63$, $p < .001$, $\eta^2 = .83$, and males (M = 46.95) gave away a larger proportion of likes compared with females (M = 32.67), $F(1, 148) = 32.00$, $p < .001$, $\eta^2 = .18$. The interaction effect (as expected) was not significant, $p = .07$.

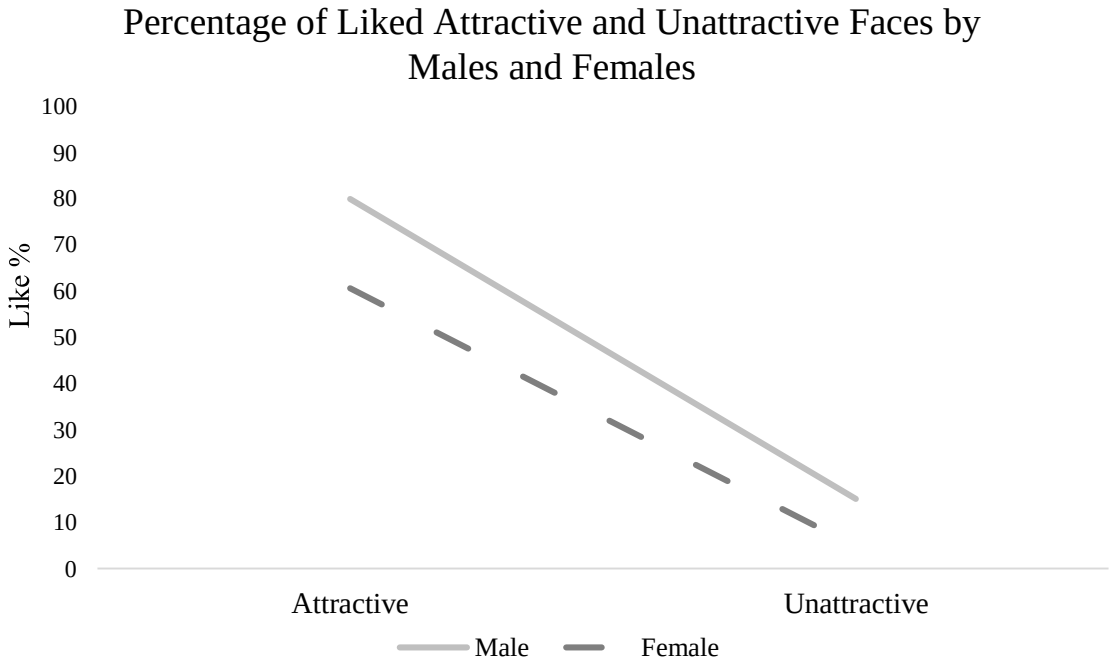

Figure 1. Displayed are mean percentages of likes given to attractive (left) and unattractive (right) faces. Percentage of likes from males is represented by the light-grey solid line and female likes are represented by the dashed dark -grey line.

The same ANOVA was carried out for response times, where the mean response times in milliseconds were submitted to a 2(Gender: male and female) x 2(Attractiveness: attractive and unattractive) mixed ANOVA with repeated measures for Attractiveness (see Figure 2). A significant main effect was found for attractiveness, such that response times were slower for attractive faces (M = 1646.96) compared with unattractive faces (M = 1446.13), $F(1, 148) = 16.42$, $p < .001$, $\eta^2 = .10$. No significant main effect was found for gender. However, consistent with predictions, the main effects were qualified by a significant interaction, $F(1, 148) = 17.27$, $p < .001$, $\eta^2 = .10$. The pattern, as seen in Figure 2, was as predicted. Follow-up simple effects analyses, using paired samples t-tests, showed that the males responses times did not differ as a function of the attractiveness of the faces, $t(43) = .06$, $p = .95$, whereas females responded significantly slower for the attractive faces (M = 1680.28) compared to the unattractive faces (M = 1273.65), $t(105) = -7.40$, $p < .001$.

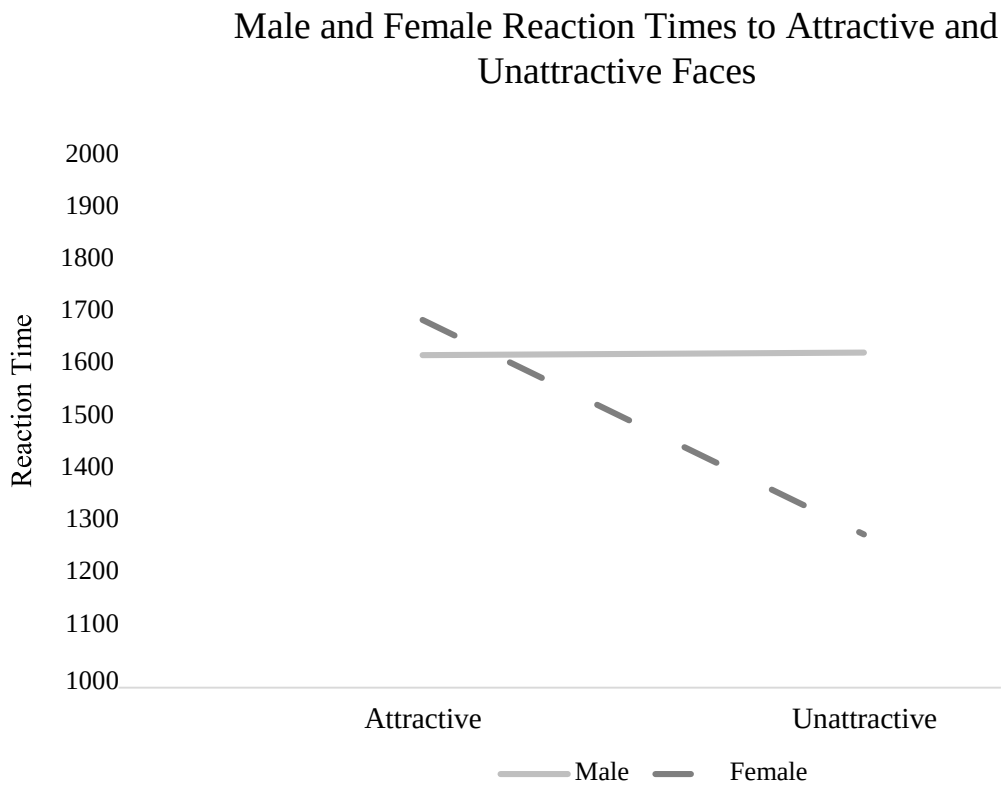

Figure 2. Displayed are mean reaction times, in milliseconds, for attractive (left) and unattractive (right) faces. Male reaction times are represented by the light-grey solid line while female reaction times are represented by the dashed dark-grey line.

Multiple regressions

Multiple regression analyses were carried out to test for the influence of the passive variables assessed in this study on the proportion of liking for attractive faces compared to unattractive faces. Difference scores (attractive – unattractive) were not used, given the well understood problems with this kind of measure (see Johns, 1981). Instead, a multiple regression approach was used, in which the attractive dependent variable was initially regressed on the unattractive variable (proportion of faces selected in both cases as liked). Then the additional independent variable was included. For example, higher levels of unrestricted SOI should predict higher levels of liking for the attractive faces even when controlling to the amount of liking for the unattractive faces. Two separate regressions were

calculated with the independent variables of SOI and the importance given to physical attractiveness as an ideal standard added to each of the equations.

Table 7. *Multiple Regression Outcomes for Ideal Standards and Sociosexuality while controlling for Like % for Unattractive Faces Predicting Like % for Attractive Faces*

		β	Zero-order
Like % Attractive Faces			
Like % Unattractive Faces		.31**	.28**
Ideal Standards Physical Attractiveness		.19*	.15
R^2	.12**		
Like % Attractive Faces			
Like % Unattractive Faces		.28**	.28**
SOI		.18*	.18*
R^2	.11*		

Note. Figures in the Table are beta weights, zero-order correlations, and R-square values from multiple regression analyses, * $p < .05$, ** $p < .001$.

The multiple regressions revealed significant effects for SOI and endorsement of the attractive ideals respectively (see Table 7). First, higher levels of unrestricted sociosexuality were associated with liking attractive faces, when controlling for liking of unattractive faces. Second, as predicted, when controlling for liking of unattractive faces, importance of physical attractiveness in an ideal partner significantly predicted more liking for attractive faces.

Discussion

Study 2 built on Study 1, by examining dating decisions in an experimental online dating context, simulating the use of Tinder and manipulating physically attractive versus unattractive potential mates. Participants were required to either accept or reject (like/pass) to a series of attractive and unattractive faces, with "accept" meaning they would be (hypothetically) interested in making contact with the individual. All the predictions from this study were supported.

First, and unsurprisingly, attractive faces received more likes than unattractive faces. Second, those who rated more strongly the importance of physical attractiveness in an ideal mate liked more attractive faces than unattractive faces. Third, the prediction that physical attractiveness in this context was equally important to both genders was supported, as no gender difference was found for liking attractive versus unattractive faces. Fourth, sociosexually unrestricted individuals liked a greater number of attractive faces than more restricted sociosexually oriented individuals. Fifth, males liked more faces overall than females. Finally, females made faster decisions for the unattractive faces than the attractive faces, whereas males took the same amount of time to decide for attractive and unattractive faces.

As I suspected, the findings were consistent with speed dating and mate selection research showing that physical attractiveness is desirable in a potential mate, physical attractiveness is preferred by those more interested in short-term relationships (sociosexually unrestricted individuals), and both sexes value physical attractiveness during initial mate selection (Fletcher et al., 2013; Fletcher et al., 2014). More generally, in initial stages of mate selection physical attractiveness plays a central role. Physical attractiveness provides immediate and accurate information about an individual's mate value (e.g. health, fertility) compared to more abstruse and internal attributes such as kindness which take longer to uncover, are judged less accurately, and may be more likely to be inconsequential in a shortterm mating context (Fletcher et al., 2014).

Moreover, speed dating studies (e.g. Fletcher et al., 2014; Lenton & Francesoni, 2010) involving limited interactions have found that participants also base their decisions to make future contact on the physical attractiveness of the individual, and not on less observable

traits such as education. The findings from Study 2 indicate the same processes are occurring with Tinder use.

The decisions recorded in Study 2 also speak to the nature of the decision to swipe left or right. Consistent with parental investment theory and speed dating research, men appeared to have lower minimum standards than women. Parental investment theory suggests this is because of the greater investment in offspring from females than males, leading to a greater risk associated with saying "yes" to potential partner for females. Thus women have a higher threshold than men when it comes to partner selection. In Study 2, as I proposed previously, for women the unattractive faces were so clearly below their minimum threshold that they could be rapidly rejected. Conversely, the more attractive faces that meet or exceed the threshold for female participants, are examined more carefully before a like/pass decision is made, perhaps taking into account any personality factors that might be gleaned from the images. In contrast, men made equally rapid judgements regardless of the level of attractiveness, suggesting a less nuanced and complex judgmental process than produced by women.

General Discussion

Finding a romantic companion has always been of vital importance to humans. In the last few decades, technology has been increasingly relied upon to find these companions. Online dating, in particular, has arisen and rapidly become mainstream in use, particularly with the innovation of smart phone dating apps. The current series of studies set out to investigate the extent to which online dating is used in New Zealand by utilising a young urban sample, exploring the predictors, motivations, and outcomes of its use.

Study 1, using a survey, found that online dating use is indeed common in Wellington, New Zealand, among a young university sample. As predicted, Tinder was by far the most popular app, with nearly all participants who reported using online dating also reporting having used Tinder. Interestingly, participants were motivated to join online dating (predominantly Tinder) for casual sex just as often as for a serious relationship, but gave both motivations equal weight. Through use of online dating, many participants met up with people, some of these meetings led to casual sex encounters (short-term fling/one-night stand) and friendships, while relatively few resulted in serious dating relationships.

Study 1, as predicted, found that men were not more likely than women to use online dating but were more likely to report being motivated to join online dating for casual sex than women. Sociosexually unrestricted individuals used online dating more frequently and were more strongly motivated to join online dating for casual sex compared with sociosexually restricted individuals. People who used online dating more frequently also had more positive attitudes towards use. Additionally, having a more positive attitude towards online dating was associated with stronger motivations to join online dating for casual sex but was not associated with being motivated to join for a serious relationship or friendship.

Unsurprisingly, single people reported more frequent use of online dating than those in relationships.

Study 2 was on an experimental simulation of Tinder and showed, as expected, that physical attractiveness is important during early mate selection with a greater number of attractive faces liked than unattractive faces, irrespective of the gender of the participant. Sociosexually unrestricted individuals, who are typically more interested in short-term relationships than sociosexually restricted individuals, also liked a correspondingly larger number of attractive faces. As expected, women liked significantly fewer faces overall than men, and responded faster for unattractive faces compared with attractive faces, while men's response times were the same for both attractive and unattractive faces.

Many of these findings can be interpreted and explained by parental investment theory. For example, women in the sample passed on more faces than men in the sample did, indicating higher minimum standards than men due to their greater investment in offspring. This greater investment in offspring also appeared to lead to a higher risk associated with liking a potential partner, which was shown by women taking longer to decide for attractive faces but rapidly responding for unattractive faces. However, parental investment theory can also be used to explain within-gender differences. Such as, less sociosexually restricted individuals liking more attractive faces because they are after something more short-term.

Is Tinder a hook-up app?

The media often portrays Tinder as a hook-up app whereby people use it to search for partners willing to engage in casual, uncommitted sexual relationships. This portrayal is generally viewed negatively and thought by some to be damaging to the social fabric of society. An article in the trendy and widely read Vanity Fair magazine (Sales, 2015) reported

claims from interviewees that because of hook-up apps like Tinder, very few young people (men in particular) desire a serious relationship and are only interested in sex.

The findings from Study 1, predominantly reflecting Tinder use, suggest Tinder is a hook-up app but perhaps not to the degree the media portrays. Casual sex was indeed a relatively frequent outcome of using apps such as Tinder in Study 1, with a much lower rate of serious relationship outcomes. Additionally, individuals more interested in short-term relationships (unrestricted SOI score) were not just more motivated to join online dating for casual sex but were also more frequent users than more sociosexually restricted individuals. Furthermore, more positive attitudes were associated with stronger motivations to join for casual sex but not to join for a serious relationship. This is possibly because the desired outcome occurs more frequently for those seeking casual sex compared with those seeking a serious relationship, suggesting the success of Tinder as a hook-up app may facilitate hookups, for those seeking them.

The current research shows that Tinder usage is also quite strongly motivated by the search for a serious relationship. Indeed, those more strongly motivated to join for a serious relationship were more frequent users. The low rate of serious relationships formed on the basis of Tinder usage, may simply be a function of the differences between a short-term dating relationship and long-term relationships. When searching for a long-term partner standards of acceptability are higher compared with a short-term partner, which makes sense given the higher associated investment of being in a long-term relationship (Fletcher et al., 2013). Developing a serious, committed relationship takes much more consideration, caution, and time than a casual sex partner. Alternatively, it is possible the perceived unlimited availability of partners that online dating presents may discourage users from settling down

(Paul, 2014; Smith & Duggan, 2013). In summary, Tinder is successful when used as a hookup app, facilitating hook-ups for those who desire them, but remains a medium through which serious relationships are also sought and found.

Gender differences in motivation and mate choice

The current research found a mixed pattern of gender differences, which were predicted in advance, are theoretically plausible, and are consistent with prior research. Men and women used online dating to a similar degree, but I found some significant gender differences with regard to motivations to join online dating, and dating decisions on a simulation of Tinder. These gender differences can be explained through parental investment theory and give insight into how dating decisions occur on Tinder. Parental investment theory suggests that due to greater investment costs, women have higher standards when choosing a mate and are less interested in short-term sex. In contrast, men, whose investment levels in offspring are lower than women's, can afford to have lower standards when choosing a mate and have a greater desire for partner variation and casual sex. This desire for casual sex and partner variation explains why men were more motivated than women to join online dating for casual sex. Given that Tinder was overwhelmingly the main online dating tool used by the young sample in Study 1, and that Tinder has a reputation as a hook-up app for casual sex, this may have contributed to this finding.

Previous research has consistently found that men have lower minimum standards than women in the early stages of mate selection (e.g. Finkel & Eastwick, 2009; Fletcher et al., 2014). This gender difference is reflected in the findings from responses to the Tinder simulation in Study 2. Men liked significantly more faces overall compared with women who were more cautious in making "like" decisions. Reaction time findings showed that men made like/pass decisions in the same time span for unattractive faces and attractive faces. By

comparison, if female standards are higher this would help explain their more rapid responses to the unattractive faces. But why were they slower for the physically attractive faces? I predicted this difference based, again, on the idea that women make these kinds of decisions more cautiously and carefully than men. For example, they may consider the extent to which the face looks trustworthy or kind. This explanation could be tested in further research.

Overall, the findings from Study 2 were consistent with research on male and female mate choices in offline, face-to-face scenarios (e.g. Fletcher et al., 2014). Furthermore, the findings can be explained using a robust form of evolutionary theory (parental investment theory). It is certainly possible that Tinder is having a negative influence on the formation of healthy romantic relationships, as some have claimed, but the underlying psychological processes appear to be similar to relationship formation in offline contexts.

Tinder's popularity

The findings from Study 2 indicate that the simple design of Tinder, and its focus on physical attractiveness, are crucial ingredients for its immense popularity. In real life, as shown in speed dating studies, physical attractiveness is very important during the initial search for a mate. Indeed, physical attractiveness is the main driver of selection decisions. Other important mate characteristics, such as kindness and income, are less important during initial mate selection as they are not easily observable, and take longer to accurately judge (Fletcher et al., 2014). Even in ten minute face-to-face encounters with strangers, individuals pay more attention to aspects of physical attractiveness than non-physical characteristics such as education or income (Lenton & Francesconi, 2010). By focussing, of necessity, on physical appearance, Tinder allows individuals to efficiently filter a wide array of potential mates.

However, Tinder is simply a user-friendly filtering and matching tool. It introduces users to a diverse pool of potential mates. After mutually "liking" each other on Tinder, it is the subsequent face-to-face interaction between Tinder users, which will determine the ongoing development or termination of any future relationship. So Tinder provides a potential match for two users but its influence stops at this point. The popularity of Tinder internationally and in New Zealand, as found in Study 1, may lie in its elegant simplicity – combining ease of use with a focus on physical appearance.

Limitations and caveats

Despite the strengths of this research, there are some limitations to consider. First, while the sample in Study 1 provides good insight into online dating use among young adults, it may not reflect older online daters in New Zealand. Age is a key variable when considering the use of online dating. Involvement in online dating activity appears to increase with age and social groups tend to get smaller with age, so traditional dating pools diminish in size (Stephure et al., 2009). Reportedly the most active online daters are between 30 and 50 years of age (Valkenburg & Peter, 2007) and older individuals tend to put more time and investment into their online dating profiles. Repeating the survey in Study 1 with a more representative sample would offer increased insight into online dating more generally in New Zealand across a range of age groups. Younger people are more inclined to use mobile dating apps than online dating websites and the prevalence of Tinder in Study 1 may reflect this, however this may not be the case for older online daters.

A second limitation is the decision to use very attractive and very clearly average faces in Study 2 rather than a wider range of attractive and less attractive faces. Although the main interest of the study was to investigate how responses to attractive and unattractive

faces might differ in the context of Tinder, without a baseline response or control condition (e.g. responses to average looking faces) the findings might be limited to extreme cases.

Future research

The current studies have successfully investigated online dating use both generally, and then more specifically using a Tinder simulation. Future research could further investigate the decision making criteria used by men and women when using Tinder. Specifically, measures of minimum mating standards across short-term and long-term mating contexts could be included to test some explanations advanced in prior sections.

Future research could also examine how Tinder's reputation as a hook-up app might accentuate the gender differences in dating decisions we found on Tinder. Future studies could test this by including long-term relationship, short-term relationship, and control (no priming) primes as part of a Tinder simulation.

Finally, it would be interesting to repeat these studies using a sample of older New Zealanders where frequency of use, and variety of dating websites or apps used may differ from the current samples used in the current research.

Conclusion

In conclusion, online dating appears to be prevalent in New Zealand with the mobile dating app Tinder enjoying by far the greatest prevalence of use in the sample of young New Zealanders included in my studies. Despite its reputation, Tinder is not always used as a hook-up app as relationships of various types are sought out but it is a medium through which casual sex can be sought and obtained so may facilitate hook-ups for those seeking casual sex. However, the research presented here suggests that Tinder usage does not change the psychological processes that naturally occur during initial mate selection. Indeed, choosing

potential partners on Tinder is not much of a stretch from standard mate selection strategies used by men and women in offline contexts, which, combined with its elegant simplicity, may account for its massive popularity.

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Appendix A: Study 1 Information Sheet

Information Sheet and Consent Form IPRP participants

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What is the purpose of this research?

- This research will allow us to explore the prevalence and use of online dating and mobile dating apps within a New Zealand context.

Who is conducting the research?

- We are a team of researchers in the School of Psychology at Victoria University of Wellington. Prof. Garth Fletcher is supervising this project. This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee.

What is involved if you agree to participate?

- If you agree to participate in this study, you will complete an online survey questionnaire about your online dating and app usage, where you will answer questions such as "how often (have) you used online dating in the last year?".
- You will also answer some questions about your relationship beliefs and perceptions, including your views about your ideal partner, your levels of satisfaction (if you are currently in a relationship), and your past experiences in romantic and sexual relationships.
- We anticipate that the questionnaire will take you no more than 30 minutes.
- During the research you are free to withdraw, without any penalty at any point before the experiment has been completed.
- For your completion of the study you will earn 0.5 credits toward your IPRP requirement. **Privacy and Confidentiality**

- We will keep a copy of your consent form for at least five years after publication. At that point we will destroy it. Before destruction, they will be kept in Professor Fletcher's office or lab.
- Your data from any questionnaire will be coded in terms of numbers and will not contain any information that reveals your identity.
- Data that do not reveal your identity will be kept indefinitely.
- You will never be identified in my research project or in any other presentation or publication.
- In accordance with the requirements of some scientific journals and organisations, your coded survey may be shared with other competent researchers.
- Your coded data may be used in other, related studies.
- A copy of the coded data will remain in the custody of Prof. Garth Fletcher at Victoria University.
- If you provide an e-mail address at the end of the study because you want to learn about the findings, the copy with the e-mail address will be destroyed after the findings are sent to you. The e-mail address will not be shared with others.

What happens to the information that you provide?

- The data you provide may be used for one or more of the following purposes:
- The overall findings may be submitted for publication in a scientific journal, or presented at scientific conferences.
- The overall findings will form part of a Masters thesis that will be submitted for assessment.
- Part or all of the findings may be presented in a Masters poster.

If you would like to know the results of this study, when they are available they can be sent to you via e-mail or mail if requested. (If so, please write your email address on the following page)

If you have any further questions regarding this study please contact any one of us above.

Thank you for considering participation in this research.

Information Sheet and Consent Form PSYC232 participants

Garth Fletcher — **Principal Investigator** — garth.fletcher@vuw.ac.nz

Ceara Nicolls — **Research Assistant** — ceara.nicolls@vuw.ac.nz

Kate Mickleson — **Masters Student** — kate.mickleson@vuw.ac.nz

What is the purpose of this research?

- This research will allow us to explore the prevalence and use of online dating and mobile dating apps within a New Zealand context.

Who is conducting the research?

- We are a team of researchers in the School of Psychology at Victoria University of Wellington. Prof. Garth Fletcher is supervising this project. This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee.

What is involved if you agree to participate?

- If you agree to participate in this study, you will complete an online survey questionnaire about your online dating and app usage, where you will answer questions such as "how often (have) you used online dating in the last year?".
- You will also answer some questions about your relationship beliefs and perceptions, including your views about your ideal partner, your levels of satisfaction (if you are currently in a relationship), and your past experiences in romantic and sexual relationships.
- We anticipate that the questionnaire will take you no more than 30 minutes.
- During the research you are free to withdraw, without any penalty at any point before the experiment has been completed.
- For your completion of the study you will be rewarded with a New World supermarket voucher in the amount of $10 (NZ). This may be picked from Kate Mickleson in office EA624. You will be required to sign a receipt as a record that you have picked up your reward. **Privacy and Confidentiality**
- We will keep a copy of your consent form for at least five years after publication. At that point we will destroy it. Before destruction, they will be kept in Professor Fletcher's office or lab.
- Your data from any questionnaire will be coded in terms of numbers and will not contain any information that reveals your identity.
- Data that do not reveal your identity will be kept indefinitely.
- You will never be identified in my research project or in any other presentation or publication.
- In accordance with the requirements of some scientific journals and organisations, your coded survey may be shared with other competent researchers.
- Your coded data may be used in other, related studies.
- A copy of the coded data will remain in the custody of Prof. Garth Fletcher at Victoria University.
- If you provide an e-mail address at the end of the study because you want to learn about the findings, the copy with the e-mail address will be destroyed after the findings are sent to you. The e-mail address will not be shared with others.

What happens to the information that you provide?

- The data you provide may be used for one or more of the following purposes:

- The overall findings may be submitted for publication in a scientific journal, or presented at scientific conferences.
- The overall findings will form part of a Masters thesis that will be submitted for assessment.
- Part or all of the findings may be presented in a Masters poster.

If you would like to know the results of this study, when they are available they can be sent to you via e-mail or mail if requested. (If so, please write your email address on the following page)

If you have any further questions regarding this study please contact any one of us above.

Thank you for considering participation in this research.

Appendix B: Study 1 Questionnaire

Please enter the last 4 digits of your cell phone number below. This "code" will be required when collecting your $10 New World voucher so please remember it.

What is your gender?

- ❍ Male (1)
- ❍ Female (2)
- ❍ Other (3)

What is your age?

What is your current relationship status?

- ❍ Single (1)
- ❍ Dating (2)
- ❍ Living together (3)
- ❍ Married (4)

The following questions assess your use, perceptions of use, motivations, and attitudes towards online dating. Online dating includes any internet dating websites (e.g. Match.com) or mobile dating apps (e.g. Tinder).For the following questions, use or used includes searching, browsing or communicating behaviours. It does not include simply 'being logged in' to one's account (or personal profile) without activity.

How often have you used online dating in the LAST YEAR on average?

- ❍ Never (1)
- ❍ Once (2)
- ❍ More than once (3)
- ❍ Every month (4)
- ❍ Every week (5)
- ❍ Every day (6)
- ❍ Multiple times a day (7)

How much time do you spend using online dating in one sitting when you do use it on average?

- ❍ Never (1)
- ❍ Less than ten minutes (2)
- ❍ 10-20 minutes (3)
- ❍ 20-40 minutes (4)

- ❍ 40-60 minutes (5)
- ❍ 60-90 minutes (6)
- ❍ Two hours or more (7)

To what extent have you used these sites in the last year:

	Never (1)	Once (2)	More than once (3)	Every month (4)	Every week (5)	Every day (6)	Multiple times a day (7)
5050NZDating (1)	❍	❍	❍	❍	❍	❍	❍
Badoo (2)	❍	❍	❍	❍	❍	❍	❍
Be2 (3)	❍	❍	❍	❍	❍	❍	❍
Bumble (4)	❍	❍	❍	❍	❍	❍	❍
CDate (5)	❍	❍	❍	❍	❍	❍	❍
Coffee Meets Bagel (6)	❍	❍	❍	❍	❍	❍	❍
DatingBuzz (7)	❍	❍	❍	❍	❍	❍	❍
DatingNZSingles (8)	❍	❍	❍	❍	❍	❍	❍
Down (9)	❍	❍	❍	❍	❍	❍	❍
eHarmony (10)	❍	❍	❍	❍	❍	❍	❍
Elite Singles (11)	❍	❍	❍	❍	❍	❍	❍
FindSomeone (12)	❍	❍	❍	❍	❍	❍	❍
Grindr (13)	❍	❍	❍	❍	❍	❍	❍
HaveAFling (14)	❍	❍	❍	❍	❍	❍	❍
Hinge (15)	❍	❍	❍	❍	❍	❍	❍
Hitch (16)	❍	❍	❍	❍	❍	❍	❍
How about we (17)	❍	❍	❍	❍	❍	❍	❍
Let's Date (18)	❍	❍	❍	❍	❍	❍	❍
Loveaholics (19)	❍	❍	❍	❍	❍	❍	❍
Lovestruck (20)	❍	❍	❍	❍	❍	❍	❍
Marie Claire Dating (21)	❍	❍	❍	❍	❍	❍	❍
Match (22)	❍	❍	❍	❍	❍	❍	❍

Meet Moi (23)	❍	❍	❍	❍	❍	❍	❍
MyLOL (24)	❍	❍	❍	❍	❍	❍	❍
NZ Dating (25)	❍	❍	❍	❍	❍	❍	❍
NZ.Match (26)	❍	❍	❍	❍	❍	❍	❍
NZPersonals (27)	❍	❍	❍	❍	❍	❍	❍
OkCupid (28)	❍	❍	❍	❍	❍	❍	❍
PlentyOfFish (POF) (29)	❍	❍	❍	❍	❍	❍	❍
SinglesClub (30)	❍	❍	❍	❍	❍	❍	❍
Skout (31)	❍	❍	❍	❍	❍	❍	❍
Tastebuds (32)	❍	❍	❍	❍	❍	❍	❍
Tinder (33)	❍	❍	❍	❍	❍	❍	❍
Twosome (34)	❍	❍	❍	❍	❍	❍	❍
Victoria Milan (35)	❍	❍	❍	❍	❍	❍	❍
ZingleBook (36)	❍	❍	❍	❍	❍	❍	❍
Zoosk (37)	❍	❍	❍	❍	❍	❍	❍

In the last year how many times have you met in person with someone through communicating with them via online dating?

- ❍ Never (1)
- ❍ Once (2)
- ❍ Twice (3)
- ❍ Three times (4)
- ❍ Four times (5)
- ❍ Five Times (6)
- ❍ Six or more times (7)

In the last year how many times have you met with the same person (or persons) having contacted them via online dating?

- ❍ Never (1)
- ❍ Once (2)
- ❍ Twice (3)
- ❍ Three times (4)
- ❍ Four times (5)
- ❍ Five times (6)
- ❍ Six or more times (7)

In the last year how many times have you had a one night stand with someone having met them via online dating?

- Never (1)
- Once (2)
- Twice (3)
- Three times (4)
- Four times (5)
- Five times (6)
- Six or more times (7)

In the last year how many times have you had a short-term fling with someone having met them via online dating?

- Never (1)
- Once (2)
- Twice (3)
- Three times (4)
- Four times (5)
- Five times (6)
- Six or more times (7)

In the last year how many times have you formed a serious relationship with someone having met them via online dating?

- Never (1)
- Once (2)
- Twice (3)
- Three times (4)
- Four times (5)
- Five times (6)
- Six or more times (7)

In the last year how many times have you formed a non-romantic friendship with someone having met them via online dating?

- Never (1)
- Once (2)
- Twice (3)
- Three times (4)
- Four times (5)
- Five times (6)

❍ Six or more times (7)

Would you say online dating is:

	Unsafe (1)	(2)	(3)	(4)	(5)	(6)	Safe (7)
A safe way to meet people (1)	❍	❍	❍	❍	❍	❍	❍

Would you say online dating is:

	Negative (1)	(2)	(3)	(4)	(5)	(6)	Positive (7)
A positive way to meet people (1)	❍	❍	❍	❍	❍	❍	❍

Would you say online dating is:

	Ineffective (1)	(2)	(3)	(4)	(5)	(6)	Effective (7)
A effective way to meet people (1)	❍	❍	❍	❍	❍	❍	❍

Please indicate to what extent you joined online dating because:

	Strongly agree (7)	Agree (6)	Somewhat agree (5)	Neither agree nor disagree (4)	Somewhat disagree (3)	Disagree (2)	Strongly disagree (1)	Not applicable (0)
You wanted casual sex (1)	❍	❍	❍	❍	❍	❍	❍	❍
You wanted a serious dating relationship (2)	❍	❍	❍	❍	❍	❍	❍	❍

You wanted a (non-sexual) friendship (3)	❍	❍	❍	❍	❍	❍	❍	❍

Please rate each factor below in terms of the importance that each factor has in describing your IDEAL PARTNER in a close relationship (dating, living together, or married).

	Very unimportant (1)	(2)	(3)	(4)	(5)	(6)	Very important (7)
Sexy (1)	❍	❍	❍	❍	❍	❍	❍
Nice body (2)	❍	❍	❍	❍	❍	❍	❍
Attractive appearance (3)	❍	❍	❍	❍	❍	❍	❍
Good lover (4)	❍	❍	❍	❍	❍	❍	❍
Outgoing (5)	❍	❍	❍	❍	❍	❍	❍
Adventurous (6)	❍	❍	❍	❍	❍	❍	❍
Kind (7)	❍	❍	❍	❍	❍	❍	❍
Supportive (8)	❍	❍	❍	❍	❍	❍	❍
Understanding (9)	❍	❍	❍	❍	❍	❍	❍
Considerate (10)	❍	❍	❍	❍	❍	❍	❍
Sensitive (11)	❍	❍	❍	❍	❍	❍	❍
A good listener (12)	❍	❍	❍	❍	❍	❍	❍
Successful (or potential to achieve) (13)	❍	❍	❍	❍	❍	❍	❍
Nice house or apartment (or potential to achieve) (14)	❍	❍	❍	❍	❍	❍	❍
Financially secure (or potential to achieve) (15)	❍	❍	❍	❍	❍	❍	❍

Dresses well (or potential to achieve) (16)	❍	❍	❍	❍	❍	❍	❍
Good job (or potential to achieve) (17)	❍	❍	❍	❍	❍	❍	❍

Please answer all of the following questions honestly. Your responses are guaranteed to be anonymous. For the questions dealing with behavior, write your answers in the spaces provided. For the questions dealing with thoughts and attitudes, select the appropriate answer on the scales provided. The term "sexual intercourse" refers to genital sex.

With how many different partners have you had sex (sexual intercourse) within the past year?

With how many different partners have you had sex (sexual intercourse) in your lifetime?

With how many different partners do you foresee yourself having sex with during the next five years? (Please give a specific, realistic estimate)

With how many different partners have you had sex on one and only one occasion?

How often do you fantasize about having sex with someone other than your current dating partner (when you are in a relationship)?

- ❍ Never (1)
- ❍ Once every two or three months (2)
- ❍ Once a month (3)
- ❍ Once every two weeks (4)
- ❍ Once a week (5)
- ❍ A few times each week (6)
- ❍ Nearly every day (7)
- ❍ At least once a day (8)

Please indicate the degree to which you agree or disagree with the following statements

Sex without love is OK

- Strongly agree (7)
- Agree (6)
- Somewhat agree (5)
- Neither agree nor disagree (4)
- Somewhat disagree (3)
- Disagree (2)
- Strongly disagree (1)

I can imagine myself being comforTable and enjoying "casual" sex with different partners

- Strongly agree (7)
- Agree (6)
- Somewhat agree (5)
- Neither agree nor disagree (4)
- Somewhat disagree (3)
- Disagree (2)
- Strongly disagree (1)

I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comforTable and fully enjoy having sex with him or her

- Strongly agree (7)
- Agree (6)
- Somewhat agree (5)
- Neither agree nor disagree (4)
- Somewhat disagree (3)
- Disagree (2)
- Strongly disagree (1)

Appendix C: Study 1 Debrief Sheets

Debriefing Sheet Study 1 – IPRP Participants

Title of Study: Use of Online Dating in New Zealand: Examination of Individual Differences

Ethics approval Number: 22952

Thank you for participating in this survey. You will receive your 0.5 IPRP credit for your participation.

As you will have noticed from the questions, this survey was interested in exploring the prevalence of online dating use and how this relates to individual differences such as, relationship status, sexual orientation, ideal standards, relationship satisfaction, sociosexuality orientation, and gender. Little research has been carried out on online dating in New Zealand so we were also interested in the prevalence of online dating within a New Zealand sample.

Our predictions for this study are based on previous research and state broadly how prevalence of online dating is related to each of the variables being studied as mentioned above.

For relevant literature regarding this area of research refer to:

Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2012). Online dating a critical analysis from the perspective of psychological science. *Psychological Science in the Public Interest, 13*(1), 3-66.

If you have questions about the ethical aspects of the research, you can contact Victoria University of Wellington Human Ethics Committee Convenor: Susan Corbett, email: susan.corbet@vuw.ac.nz telephone: +64-4-463 5480.

Debriefing Sheet Study 1 – PSYC232 Participants

Title of Study: Use of Online Dating in New Zealand: Examination of Individual Differences

Ethics approval Number: 22952

Thank you for participating in this survey. To receive your $10 New World voucher reward for your participation please come to Kate Mickleson's office (EA624) between 12pm – 3pm on a Thursday or 1pm – 3pm on a Friday. If you cannot make these times to collect your reward please email Kate at kate.mickleson@vuw.ac.nz. Also feel free to email Kate with any concerns regarding the survey.

As you will have noticed from the questions, this survey was interested in exploring the prevalence of online dating use and how this relates to individual differences such as, relationship status, sexual orientation, ideal standards, relationship satisfaction, sociosexuality orientation, and gender. Little research has been carried out on online dating in New Zealand so we were also interested in the prevalence of online dating within a New Zealand sample.

Our predictions for this study are based on previous research and state broadly how prevalence of online dating is related to each of the variables being studied as mentioned above.

For relevant literature regarding this area of research refer to:

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Appendix D: Study 2 Information Sheet

Information Sheet and Consent Form

Garth Fletcher	Ceara Nicolls	Kate Mickleson
Principal Investigator	**Research Assistant**	**Masters Student**
garth.fletcher@vuw.ac.nz	ceara.nicolls@vuw.ac.nz	kate.mickleson@vuw.ac.nz

What is the purpose of this research?

- This research will allow us to explore some of the predictors of how Tinder (mobile dating APP) is used within a New Zealand context.

Who is conducting the research?

- We are a team of researchers in the School of Psychology at Victoria University of Wellington. Prof. Garth Fletcher is supervising this project. This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee.

What is involved if you agree to participate?

- If you agree to participate in this study, you will complete a computer-based exercise that attempts to model how people use Tinder (it is not actually Tinder). You will be asked to imagine being on Tinder and select faces of people that you would be prepared to make further contact with.
- You will also answer some questions about your relationship beliefs and perceptions, including your views about your ideal partner, your levels of satisfaction (if you are currently in a relationship), and your past experiences in romantic and sexual relationships.
- We anticipate that the entire experiment will take you no more than 15 minutes.
- During the research you are free to withdraw, without any penalty at any point before the experiment has been completed.
- For your completion of the study you will be rewarded with a New World supermarket voucher in the amount of $10 (NZ).

Privacy and Confidentiality

- We will keep a copy of your consent form for at least five years after publication. At that point we will destroy it. Before destruction, they will be kept in Professor Fletcher's office or lab.
- Your data from any questionnaire will be coded in terms of numbers and will not contain any information that reveals your identity.
- Data that do not reveal your identity will be kept indefinitely.
- You will never be identified in my research project or in any other presentation or publication.
- In accordance with the requirements of some scientific journals and organisations, your coded survey may be shared with other competent researchers.
- Your coded data may be used in other, related studies.
- A copy of the coded data will remain in the custody of Prof. Garth Fletcher at Victoria University.
- If you provide an e-mail address at the end of the study because you want to learn about the findings, the copy with the e-mail address will be destroyed after the findings are sent to you. The e-mail address will not be shared with others.

What happens to the information that you provide?

- The data you provide may be used for one or more of the following purposes:
- The overall findings may be submitted for publication in a scientific journal, or presented at scientific conferences.
- The overall findings will form part of a Masters thesis that will be submitted for assessment.
- Part or all of the findings may be presented in a Masters poster.

If you would like to know the results of this study, when they are available they can be sent to you via email or mail if requested. (If so, please write your email address on the following page)

If you have any further questions regarding this study please contact any one of us above.

Thank you for considering participation in this research.

Appendix E: Study 2 Questionnaire

What is the subject number assigned to you?

Please rate each factor below in terms of the importance that each factor has in describing your IDEAL PARTNER in a close relationship (dating, living together, or married).

	Very unimportant (1)	(2)	(3)	(4)	(5)	(6)	Very important (7)
Sexy (1)	❍	❍	❍	❍	❍	❍	❍
Nice body (2)	❍	❍	❍	❍	❍	❍	❍
Attractive appearance (3)	❍	❍	❍	❍	❍	❍	❍
Good lover (4)	❍	❍	❍	❍	❍	❍	❍
Outgoing (5)	❍	❍	❍	❍	❍	❍	❍
Adventurous (6)	❍	❍	❍	❍	❍	❍	❍
Kind (7)	❍	❍	❍	❍	❍	❍	❍
Supportive (8)	❍	❍	❍	❍	❍	❍	❍
Understanding (9)	❍	❍	❍	❍	❍	❍	❍
Considerate (10)	❍	❍	❍	❍	❍	❍	❍
Sensitive (11)	❍	❍	❍	❍	❍	❍	❍
A good listener (12)	❍	❍	❍	❍	❍	❍	❍
Successful (or potential to achieve) (13)	❍	❍	❍	❍	❍	❍	❍
Nice house or apartment (or potential to achieve) (14)	❍	❍	❍	❍	❍	❍	❍
Financially secure (or potential to achieve) (15)	❍	❍	❍	❍	❍	❍	❍
Dresses well (or potential to achieve) (16)	❍	❍	❍	❍	❍	❍	❍
Good job (or potential to achieve) (17)	❍	❍	❍	❍	❍	❍	❍

Please rate each factor below in terms of how ACCURATELY each factor describes YOU

	Very inaccurate (1)	(2)	(3)	(4)	(5)	(6)	Very accurate (7)
Kind (1)	❍	❍	❍	❍	❍	❍	❍
Supportive (2)	❍	❍	❍	❍	❍	❍	❍
Understanding (3)	❍	❍	❍	❍	❍	❍	❍
Considerate (4)	❍	❍	❍	❍	❍	❍	❍
Sensitive (5)	❍	❍	❍	❍	❍	❍	❍
A good listener (6)	❍	❍	❍	❍	❍	❍	❍
Sexy (7)	❍	❍	❍	❍	❍	❍	❍
Nice body (8)	❍	❍	❍	❍	❍	❍	❍
Attractive appearance (9)	❍	❍	❍	❍	❍	❍	❍
Good lover (10)	❍	❍	❍	❍	❍	❍	❍
Outgoing (11)	❍	❍	❍	❍	❍	❍	❍
Adventurous (12)	❍	❍	❍	❍	❍	❍	❍
Successful (or potential to achieve) (13)	❍	❍	❍	❍	❍	❍	❍
Nice house or apartment (or potential to achieve) (14)	❍	❍	❍	❍	❍	❍	❍
Financially secure (or potential to achieve) (15)	❍	❍	❍	❍	❍	❍	❍
Dresses well (or potential to achieve) (16)	❍	❍	❍	❍	❍	❍	❍
Good job (or potential to achieve) (17)	❍	❍	❍	❍	❍	❍	❍

Please answer all of the following questions honestly. Your responses are guaranteed to be anonymous. For the questions dealing with behavior, write your answers in the spaces provided. For the questions dealing with thoughts and attitudes, select the appropriate answer on the scales provided. The term "sexual intercourse" refers to genital sex.

With how many different partners have you had sex (sexual intercourse) within the past year?

With how many different partners have you had sex (sexual intercourse) in your lifetime?

With how many different partners do you foresee yourself having sex with during the next five years? (Please give a specific, realistic estimate)

With how many different partners have you had sex on one and only one occasion?

How often do you fantasize about having sex with someone other than your current dating partner (when you are in a relationship)?

- ❍ Never (1)
- ❍ Once every two or three months (2)
- ❍ Once a month (3)
- ❍ Once every two weeks (4)
- ❍ Once a week (5)
- ❍ A few times each week (6)
- ❍ Nearly every day (7)
- ❍ At least once a day (8)

Please indicate the degree to which you agree or disagree with the following statements

	Strongly Disagree (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Strongly Agree (9)
Sex without love is OK (1)	❍	❍	❍	❍	❍	❍	❍	❍	❍
I can imagine myself being comforTable and enjoying "casual" sex with different partners (2)	❍	❍	❍	❍	❍	❍	❍	❍	❍

I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comforTable and fully enjoy having sex with him or her (3)	❍	❍	❍	❍	❍	❍	❍	❍	❍

Appendix F: Study 2 Debrief Sheet

Debriefing Sheet Study 2

Title of Study: Use of Online Dating in New Zealand: Examination of Individual Differences

Ethics approval Number: 22952

Thank you for participating in this study. You will receive your 1 IPRP credit for your participation.

This experiment aimed to investigate a number of individual difference variables, ideal standards, gender, sexual orientation, relationship status, relationship satisfaction, and sociosexuality orientation in relation to the attractiveness of the targets and the speed of response in a computer-based simulation of Tinder. This provides us with insight regarding how mobile dating apps such as Tinder are actually used.

Our predictions for this study are based on previous research and state broadly how attractiveness ratings and response times are related to each of the variables being studied as mentioned above.

For relevant literature regarding this area of research refer to:

Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2012). Online dating a critical analysis from the perspective of psychological science. *Psychological Science in the Public Interest, 13*(1), 3-66.

If you have questions about the ethical aspects of the research, you can contact Victoria University of Wellington Human Ethics Committee Convenor: Susan Corbett, email: susan.corbet@vuw.ac.nz telephone: +64-4-463 5480.