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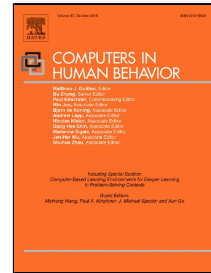
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Why are you cheating on Tinder? Exploring users' motives and (dark) personality traits

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Abstract

We present an exploratory study examining why people in a relationship use Tinder and whether they score higher on certain (dark) personality traits compared to single users and non-users in a committed relationship. Our results indicate that non-single Tinder users differ significantly on nine Tinder motives from single Tinder users. Moreover, non-single Tinder users generally report a higher number of romantic relationships, French kisses, one night stands, and casual sexual relationships with other Tinder users compared to single Tinder users. In terms of (dark) personality traits, non-single Tinder users score significantly lower on Agreeableness and Conscientiousness, and significantly higher on Neuroticism and Psychopathy compared to non-users in a committed relationship. For non-single Tinder users, lower scores on Agreeableness and Neuroticism and higher scores on Psychopathy and Machiavellianism are significantly correlated with the sexual Tinder motive. Additionally, Narcissism and Machiavellianism were positively associated with using Tinder for an ego-boost. Non-single users who reported to have had offline encounters with other Tinder users reported higher scores on Extraversion and Openness to Experience compared to non-single users who never had an offline encounter.

Keywords: Tinder, Infidelity, Personality, Big Five, Dark Triad

Why are you Cheating on Tinder? Exploring Users' Motives and (Dark) Personality Traits

When online dating started to become a more normalized practice, the two most obvious predictors for engagement in online dating used to be 1) using the Internet, and 2) being single (Sautter, Tippett, & Morgan, 2010). While the Internet is still a requirement for engagement in online dating practices, it seems that more and more non-single people are benefitting from the technology as well. According to data in the U.S., 42% of people having a Tinder profile were married or in a relationship (McGrath, 2015). In a large nationally representative study in the Netherlands, in which 17,000 people participated, 4% of male participants and 2% of female participants admitted using an online dating website or mobile dating app while being in a committed relationship (Rutgers, 2018).

Similarly, several international academic studies on Tinder use indicate that between 18 and 25% of participants reported being in a committed relationship while using Tinder (Orosz, Tóth-Király, Bõthe, & Melher, 2016; Shapiro et al., 2017; Timmermans & Courtois, 2018). Moreover, in a sample of U.S. undergraduate students, the majority of participants (i.e., 63.9%) reported having seen somebody on Tinder who they knew was in an exclusive relationship. Additionally, 73.1% of the participants reported that one of their male friends had used Tinder while in a relationship and 56.1% reported that one of their female friends had used Tinder while in a relationship (Weiser et al., 2017).

While the aforementioned studies report that people in committed relationships are commonly using Tinder, less is known about *why* this specific group is using Tinder (reflecting the motives) and whether they actually meet someone in real life through such dating apps (reflecting the behavioral outcomes). Weiser and colleagues (2017), for instance, found that only 7.2% of undergraduate Tinder users in their sample reported having been sexual with somebody on Tinder while being in a committed relationship, whereas 17.1% of undergraduate Tinder users in their sample messaged somebody on Tinder while being in a

committed relationship. Such findings thus indicate that users in a committed relationship might use Tinder for other reasons than those leading to sexual infidelity. Moreover, it would be fruitful to examine whether non-single users' motives and behavioral outcomes are different from single Tinder users' motives and behavioral outcomes. Therefore, this study aims to add to the literature by comparing non-single Tinder users' motives and behavioral outcomes with those of single Tinder users. In addition, fairly little is known about general personality traits (such as the Big Five) and maladaptive personality traits (such as the Dark Triad) in relation to non-singles' Tinder use. Consequently, a second goal of this study is to examine whether non-single Tinder users differ from both single Tinder users and non-single non-users regarding their general and dark personality traits. Lastly, we aim to investigate associations between general and dark personality traits and Tinder motives and outcomes for non-single Tinder users. The current study also complements the literature on Tinder and infidelity by casting a wider net and including age groups outside of an undergraduate sample. This is an important task considering 58% of Tinder users are in between the ages of 25 and 44 years old (McGrath, 2015).

Motives for Tinder Users in a Committed Relationship

Research has found that Tinder can be considered a useful tool for users to engage in extradyadic sexual relationships. In an Australian study, 10% of Tinder users who reported being in a committed relationship said that they had used the app to engage in a sexual affair (Hobbs, Owen, & Gerber, 2017) and those who had cheated on their partner often reported that their own infidelity had been facilitated by Tinder (Hobbs et al., 2017; Weiser et al., 2017).

However, other than looking for extradyadic sexual partners, Tinder users in a committed relationship might be looking for extradyadic romantic partners as well. For instance, a Belgian study that mainly focused on Tinder users' outcomes found that the odds

for having a committed relationship with another Tinder user within the referenced period were 344% higher for Tinder users in a committed relationship (Timmermans & Courtois, 2018). In a study on Tinder motives, the fear of being single was significantly associated with using Tinder to find a romantic partner (Timmermans & De Caluwé, 2017a). Those who fear being single have a tendency to settle for less responsive and less attractive partners and often remain in relationships that are less satisfying (Spielmann et al., 2013). Consequently, it might be that non-single users search for romantic partners on dating apps while being in a committed relationships because they fear being single.

While several findings show that people can use Tinder to be unfaithful, this is not necessarily the case for everyone. In a representative Dutch study on sexuality, for instance, only half of men who were using dating apps while in a committed relationship actually reported sexual intercourse with another person met on a dating app. Surprisingly, this was not the case for women, as all women who were using dating apps while in a committed relationship reported engaging in extradyadic sexual intercourse (Rutgers, 2018). Weiser and colleagues (2017) showed that it is much more common for users to message someone on Tinder or spend time with someone met on Tinder compared to being physically intimate with somebody or having sex with someone met on Tinder.

A study on Tinder motives shows that the most common Tinder motives are using Tinder to pass time, out of curiosity, to socialize, and to boost the ego (Timmermans & De Caluwé, 2017a). Given that dating apps are relatively new, it is possible that users in long-term committed relationships never experienced the availability of such apps while being single themselves. Continuing this logic, they might merely be curious about dating apps and install it on their smartphone to experience how it works.

In addition to satisfying curiosity, it is also possible that non-single Tinder users see the app as a way to assess their value as a dating partner. A study on addictive Tinder use

found that single and non-single Tinder users were relatively similar in their swiping frequency (Orosz et al., 2016), thereby suggesting that swiping might be equally addictive regardless of relationship status. In a popular press article, Purvis (2017) argued that the swiping process is addictive because of the potential for a match, which is rewarding for the user and boosts the ego. Given that obtaining social approval is also a commonly-reported motive for using Tinder (Timmermans & De Caluwé, 2017a), this could also explain why people in a committed relationship would use Tinder, assuming that it is a means to estimate their attractiveness on the dating market.

Previous research on infidelity has differentiated between emotional infidelity (developing deep feelings for and having an emotional bond with an extradyadic partner) and sexual infidelity (physical involvement with an extradyadic partner) (Blow & Hartnett, 2005), as well as online infidelity (e.g., conducting an emotional affair via the Internet, cybersex, viewing pornography) (Whitty, 2005). Online infidelity consists of elements of both emotional intimacy and sexual virtual contact (Aviram & Amichai-Hamburger, 2005) and can be as hurtful and harmful to the relationship as offline infidelity (Whitty, 2003). For adolescent girls, engagement in online sex chats and sexting was shown to increase the odds for reporting extradyadic kissing. For adolescent boys, sexting increased their odds for poaching (O'Sullivan & Ronis, 2013). Such findings suggest that online infidelity might even predict offline infidelity, which is why partners could perceive the former as harmful to the relationship as the latter.

Following the aforementioned reasoning, Tinder infidelity could be restricted to forming an online-only bond with another user through online conversations (i.e., online emotional infidelity), but it could also lead to meeting face to face and having sexual intercourse with other users (i.e., offline sexual infidelity). Being in a committed relationship increased the odds of having others start a conversation on Tinder with 13% (Timmermans &

Courtois, 2018), suggesting that partnered Tinder users might not be actively pursuing extradayadic partners on Tinder, but rather passively observing their opportunities.

Although a non-single Tinder user may never intend to meet another Tinder user face to face, it is possible that the noninvolved partner perceives having an account and actively swiping on Tinder as an act of online infidelity. Thus, it is unsurprising that being in a committed relationship is the primary reason for users to delete their Tinder account: Participants in a U.S. study disclosed they deleted Tinder because they were in a relationship and felt dishonest looking at it while committed to another and they or their partners sought exclusiveness (Lefebvre, 2017). While all these outcomes could be considered as infidelity, it is important to acknowledge these differences and to examine with what purposes partnered Tinder users are swiping and whether their motives and outcomes differ from those of single Tinder users. Therefore, the first research question is centered on comparing non-single Tinder users' motives with single users' motives for using Tinder. In addition to Tinder motives, we will also examine both online and offline Tinder outcomes.

RQ1: Are there differences between non-single Tinder users and single Tinder users regarding their Tinder motives, online Tinder outcomes, and offline Tinder outcomes?

Infidelity and the Big Five

The literature on the Big Five personality traits and infidelity found that individuals with lower scores on Agreeableness are more likely to have affairs in the first four years of marriage (Buss & Shackelford, 1997) and to be involved in sexual promiscuity and relationship infidelity (Schmitt, 2004). In a sample of 13,243 participants from 46 nations, Schmitt and Shackelford (2008) found that Extraversion was universally associated with interest in short-term mating, unrestricted sociosexuality, and lacking relationship exclusivity. Individuals low in Agreeableness and Conscientiousness were also more likely to engage in short-term mating and lack relationship exclusivity. Given that individuals high on

Agreeableness and Conscientiousness tend to have more perseverance in relationships regardless of conflicts and generally are more capable of resisting seduction, this may result in a lower motivation for infidelity (Barta & Kiene, 2005). Significant associations were also found between Neuroticism and Openness and short-term mating, although these relations were less consistent across gender and world region (Schmitt & Shackelford, 2008).

Recently, personality also has been found a significant predictor of dating app use, motives, and outcomes in several studies. For instance, singles who used Tinder had higher scores on Extraversion and Openness to Experience and lower scores on Conscientiousness compared to singles who never used Tinder (Timmermans & De Caluwé, 2017b). Regarding personality and Tinder motives, Agreeableness was found to be negatively associated with using mobile dating apps to increase their sexual experience, whereas users with higher scores on Conscientiousness were more likely to use Tinder to find a romantic partner and less likely to use Tinder to pass time (Timmermans & De Caluwé, 2017b). A study examining the popular Chinese social networking platform WeChat, which has similarities to dating apps such as Tinder, unraveled associations between the Big Five and Tinder behavior. For instance, individuals high in Agreeableness and Neuroticism are less likely to use social discovery features linked to meeting strangers, possibly avoiding potential disharmony inherent in unexpected acquaintances or losing control which leads to greater levels of stress and anxiety (Zhang, Pentina, & Kirk, 2018). Given these trends, we pose the following research questions about the differences between non-single and single Tinder users' Big Five personality traits, motives, and offline outcomes:

RQ2a: Do non-single Tinder users differ from single Tinder users and/or non-single non-users in terms of their Big Five personality traits?

RQ2b: What is the nature of the associations between the Big Five personality traits and non-single Tinder users' motives and offline outcomes?

Infidelity and the Dark Triad

Machiavellianism, Narcissism, and Psychopathy are collectively known as the Dark Triad (Paulhus & Williams, 2002). These distinct, but related, personality traits are characterized by exploitation, manipulation, a lack of empathy, and emotional coldness, and have received quite some research attention in predicting human behavior in many contexts (Furnham, Richards, & Paulhus, 2013; Jonason, Lyons, Bethell, & Ross, 2013). Previous research has repeatedly indicated that these dark personality traits influence both romantic and sexual relationships (e.g., Ali & Chamorro-Premuzic, 2010; Brewer & Abell, 2015, 2017; Jonason, Valentine, Li, & Harbeson, 2011). For instance, the Dark Triad traits are associated with poor quality relationships (Ali & Chamorro-Premuzic, 2010), the increased use of deception (Paulhus & Williams, 2002), interest in alternate partners (Campbell, Foster, & Finkel, 2002), greater prior incidence of infidelity (Brewer, Hunt, James, & Abell, 2015), and intentions to engage in infidelity (Brewer & Abell, 2015; Brewer et al., 2015).

In terms of mating behavior, those with higher scores on dark personality traits are less restrictive in relationships, have more sexual partners, create advantageous environments for short-term mating by having a generally lower set of standards in their mates, and prefer casual sexual relationships (Jonason et al., 2011; Jonason, Luevano, & Adams, 2012; Koladich & Atkinson, 2016). Jonason and Kavanagh (2010) examined associations between the Dark Triad and love styles and found that individuals with higher scores on the dark personality traits have a preference for the *ludus* and *pragma* love styles, which are characterized by viewing love as a game and the pursuit of a relationship for self-serving purposes, respectively. For instance, individuals high in Narcissism tend to view relationships as arenas for bolstering themselves, sometimes even at the expense of their partners (Campbell, Rudich, & Sedikides, 2002).

When taking a closer look at the dark trait personality traits separately, studies have shown that narcissistic individuals tend to be less committed to their romantic partners than are less narcissistic individuals and have a preference for casual sexual interactions as they do not like to have sex with someone they feel emotionally close with (Foster, Shrira, & Campbell, 2006). Moreover, while in a committed relationship, people with high levels of Narcissism tend to be attentive to alternative dating partners (Campbell & Foster, 2002) and are more likely to cheat on their partners (Campbell, Foster, & Finkel, 2002). In a study by Brewer and colleagues (2015) Narcissism and secondary psychopathy, which reflects anti-social behavior, were the most influential traits to predict prior experience of infidelity, intentions to engage in infidelity, and perceived susceptibility to a partner's infidelity. In another study, Brewer and Abell (2015) demonstrate that Machiavellianism predicts the use of sexual deception (including avoidance of confrontation) within committed romantic relationships.

While the aforementioned studies show clear patterns regarding the relationship between the Dark Triad and offline infidelity, less is known about its link to online infidelity. Those high in Narcissism have higher chances of reporting online extradyadic affairs (Aviram & Amichai-Hamburger, 2005), and Narcissism positively influences Tinder users' motives related to travelling (e.g., meeting new people when travelling) and self-validation (e.g., use Tinder to get an ego-boost) (Ranzini & Lutz, 2017). Other than that, Machiavellianism has been found to predict sending unsolicited explicit images (March & Wagstaff, 2017) and Psychopathy was significantly associated with trolling behavior on dating apps (March, Grieve, Marrington, & Jonason, 2017). Yet, to our knowledge, no other studies have examined associations between the Dark Triad and Tinder use and motives. Given the Dark Triad's associations with short-term mating and infidelity, the following research questions were formulated:

RQ3a: Do non-single Tinder users differ from single Tinder users and/or non-single non-users in terms of their Dark Triad personality traits?

RQ3b: What is the nature of the associations between Dark Triad personality traits and non-single Tinder users' motives and offline outcomes?

Method

Participants and Procedure

Two samples were collected as part of a larger project examining the link between Tinder and personality. The first round of data collection focused on Tinder use and the Big Five personality traits. A link to the online survey was shared by the popular press (both local and national newspapers and magazines) to reach a broad sample of Tinder users and non-users interested in participation. The second round of independent data collection focused on Tinder use and dark personality traits. Two graduate students assisted in this data collection and shared the survey link through various social media channels (e.g., Facebook, Twitter, LinkedIn). Free movie tickets were raffled among participants to encourage participation. The Tinder and personality project was approved by the research ethics board. Participation was voluntary and participants' anonymity was assured. Tinder users in the two different datasets were merged in order to examine RQ1 (i.e., Are there differences between non-single Tinder users and single Tinder users regarding their Tinder motives, online Tinder outcomes, and offline Tinder outcomes?). All detailed information on the different datasets for the three research questions can be found in Table 1.

Table 1

Description of the Different Datasets for the Three Research Questions

	Dataset for RQ1 Merge of datasets RQ2+RQ3	Dataset for RQ2 Tinder & Big Five	Dataset for RQ3 Tinder & Dark Triad
N participants completed survey	3411	1616	1795

N participants deleted because…	1439 not on Tinder + 486 no info on relationship status	731 did not fill out the Big Five	1324 did not fill out Dark Triad or relationship status
N participants remaining	1486	885	471
% females	59.5%	56.2%	72.8%
M_{age}; SD_{age}	26.06 years; 8.12	28.90 years; 10.32	22.89 years; 4.57
Range$_{age}$	18-74 years	18-74 years	18-58 years
N Non-Single Tinder Users	333 (22.4%)	123 (13.9%)	81 (17.2%)
N Single Tinder Users	1153 (77.6%)	548 (61.9%)	358 (76%)
N Non-Single Non-Users	/ (focus on Tinder)	214 (24.2%)	32 (6.8%)
% heterosexual	89.6%	92%	86%
% students	58%	47.1%	78.6%
% university degree	26%	31%	18.8%
% higher education degree	37.6%	35%	43.6%
% high school degree	31%	31.6%	36.6%
% primary school degree	3.2%	0.2%	0%
% no degree	0.6%	0.9%	0%

Measures

Demographic information. Respondents indicated their sex (0 = male; 1 = female), age, sexual orientation (0 = non-heterosexual; 1 = heterosexual), relationship status (0 = single, 1 = in a relationship), and whether they were currently a student (= 1) or not (= 0). Participants who indicated they were not a student received a follow-up question about their highest obtained degree (see Table 1).

Tinder use and motives. Participants were asked whether they currently use Tinder (0 = no; 1 = yes). To assess Tinder motives, the Tinder Motives Scale (TMS; Timmermans & De Caluwé, 2017a) was adopted (see Table 2 for reliabilities and descriptives as these were necessary in some subsamples for subsequent analyses). Participants rated 58 items (encompassing 13 Tinder motives) on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Online Tinder outcomes. Respondents were asked to rate how many in 10 Tinder users they would on average 1) swipe right (= like), 2) give a "superlike", 3) match with, and 4) start a conversation with. In addition, they were asked how many of 10 Tinder matches would start a conversation with them (see Table 2).

Offline Tinder outcomes. Tinder users were asked whether they ever met a person they matched with on Tinder. Participants who had an offline meeting with a Tinder match received six follow-up questions on their offline behavioral (see Table 2).

Big Five Personality Traits. The 120-item NEO Personality Inventory 3 First Half (NEO-PI-3FH; McCrae & Costa, 2007; Williams & Simms, 2016) was used to measure the Big Five personality traits (Costa & McCrae, 1992), presented in Likert-type format with anchors 1 (strongly disagree) to 5 (strongly agree). The five traits, Agreeableness (α = .79; M = 3.34; SD = .40), Conscientiousness (α = .85; M = 3.30; SD = .46), Extraversion (α = .82; M = 3.38; SD = .44), Neuroticism (α = .86; M = 3.00; SD = .50), and Openness to Experience (α = .78; M = 3.48; SD = .40) scales had good reliabilities.

Short Dark Triad (SD3). The 27-item Short Dark Triad (SD3; Jones & Paulhus, 2014) measures three dark personality traits presented in Likert-type format with anchors 1 (strongly disagree) to 5 (strongly agree): Machiavellianism (α = .79; M = 2.91; SD = .65), Narcissism (α = .71; M = 2.79; SD = .55), and Psychopathy (α = .75; M = 2.21; SD = .58).

Results

Preliminary Analyses

The Tinder Motives subscale reliabilities ranged from good to excellent (except for Peer Pressure [$\alpha = .66$] in a subsample for RQ2b) (see Table 2). For the merged dataset (used to answer RQ1), which includes all Tinder users that completed relationship status and at least one of the Tinder components ($N = 1486$), 906 participants (61%) reported having an offline meeting with another Tinder user. These participants received six follow-up questions on their offline Tinder behavior (offline outcomes) and besides reporting on how often they have met, 74.1% reported to have "French kissed" one or more Tinder user, 49.9% reported having had one or more one night stand(s) with another Tinder user, and 39% reported to have had one or more casual sexual relationship(s) with another Tinder user. In addition, 70.9% reported to have made one or more friend(s) on Tinder, and 26.3% reported to have had one or more romantic relationship with another Tinder user while being in a committed relationship.

To answer RQ2b, we specifically focused on Tinder users who reported being in a committed relationship while using Tinder; hence only the means and standard deviations were computed for this group (as these descriptives are needed for subsequent analyses; see Table 2). Half of Tinder users in a committed relationship in the dataset for RQ2 (64/123 = 52%) reported to have had a face-to-face encounter with another Tinder user, 78.3% reported to have "French kissed" one or more other Tinder user, 63.5% had one or more one night stand(s), 48.3% had one or more casual sexual relationship(s), 81.2% made one or more friend(s) on Tinder, and 60% had one or more romantic relationship(s) with another Tinder user while being in a committed relationship.

Similarly for RQ3b, means and standard deviations for Tinder motives and outcomes were only computed for Tinder users who reported to be in a committed relationship while

using Tinder ($n = 81$; see Table 2). Again, more than half of this group (48/81 = 59%) had ever had an offline encounter with another Tinder user. Of this group of 48, 87.5% reported to have "French kissed" one or more other Tinder user(s), 58.3% had one or more one night stand(s), 40% had one or more casual sexual relationship(s), 75% made one or more friend(s) on Tinder, and 63.8% had one or more romantic relationship(s) with another Tinder user while being in a committed relationship.

Table 2

Tinder Motives Scale (TMS; 58 items) and Tinder Outcomes: Reliabilities and Descriptives

Tinder Motives	RQ1 (n = 1486)			RQ2b* (n = 123)			RQ3b* (n = 81)			Tinder Outcomes	RQ1 (n = 1486)		RQ2b* (n = 123)		RQ3b* (n = 81)	
	α	M	SD	α	M	SD	α	M	SD		M	SD	M	SD	M	SD
Social Approval	.92	3.93	1.46	.93	3.97	1.45	.91	3.72	1.51	Online Outcomes**						
Pass Time/Entertainment	.91	4.98	1.26	.92	4.96	1.32	.91	4.84	1.33	#Right Swipes	2.73	2.18	2.74	2.19	2.47	2.19
Travelling	.95	2.71	1.65	.97	2.83	1.72	.94	2.46	1.65	#Superlikes	.39	.80	.61	.87	.42	.79
Sexual Experience	.91	2.72	1.49	.95	2.74	1.49	.90	2.66	1.49	#Matches	4.31	2.84	4.63	2.88	5.00	2.87
Ex	.95	2.51	1.76	.92	2.45	1.73	.91	2.35	1.57	#Self-instigated Conversations	2.83	2.90	2.56	2.94	2.96	3.03
Belongingness	.85	2.48	1.24	.82	2.39	1.20	.88	2.56	1.39	#Other-instigated Conversations	3.05	2.31	3.86	2.70	3.96	2.70
Relationship Seeking	.92	3.84	1.58	.93	4.04	1.56	.91	3.07	1.60	Offline Outcomes	RQ1 (n = 906)		RQ2b* (n = 64)		RQ3b* (n = 48)	
Flirting/Social Skills	.87	3.64	1.42	.88	3.71	1.45	.84	3.30	1.38	#Meetings	4.32	5.07	4.27	4.42	4.67	5.67
Sexual Orientation	.91	3.56	1.84	.88	3.59	1.83	.92	3.25	1.90	#French Kisses	2.63	5.35	2.65	2.84	2.98	4.45
Socializing	.85	4.18	1.40	.89	4.27	1.37	.86	4.11	1.53	#One Night Stands	1.71	4.63	1.86	3.09	1.67	3.84
Peer Pressure	.74	2.69	1.43	.66	2.71	1.44	.81	2.63	1.58	#Casual Sexual Relationships	.95	2.78	.83	1.21	1.33	3.59
Distraction	.82	3.86	1.65	.86	3.72	1.66	.81	4.00	1.65	#Friendships	2.48	4.74	1.95	2.45	2.94	5.64

| Curiosity | .76 | 4.55 | 1.33 | .82 | 4.43 | 1.36 | .79 | 4.83 | 1.35 | #Romantic Relationships | .60 | 3.51 | .68 | .64 | .77 | .67 |

Note. * RQ2b and RQ3b specifically focus on Tinder users who are in a committed relationship. Therefore, reported results are for this category of users only, in contrast to RQ1, which is focused on the differences between single Tinder users and non-single Tinder users. ** Online outcomes: participants rated how many people in 10 they would generally swipe right or superlike. Then they were asked how many of 10 likes they would match with. Then they were asked how many of 10 matches would start a conversation with them or they would start a conversation with.

RQ1: Are there differences between non-single Tinder users and single Tinder users regarding their Tinder motives, online Tinder outcomes and offline Tinder outcomes?

To investigate whether these two groups differ on their motives for using Tinder, we conducted independent samples t-tests with the 13 motives as dependent variables and the grouping variable (single vs. non-single) as the factor. When equal variances were not assumed, as indicated by a significant Levene's test, the robust t-test was consulted. Figure 1 indicates that these two groups of Tinder users (being in a relationship vs. single) differ significantly on 9 of the 13 motives. More specifically, non-single Tinder users score significantly lower than the single Tinder users on (in order of effect sizes[1]) Relationship Seeking (medium effect), Flirting/Social Skills, Socializing, Sexual Orientation, Ex, Travelling (small effects), and Peer Pressure (very small effect). These non-single Tinder users also score significantly higher on Curiosity and Belongingness compared to single Tinder users (small effect).

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[1] A Cohen's d value of .80 implies a large effect, .50 a medium effect and .20 a small effect (Cohen, 1988).
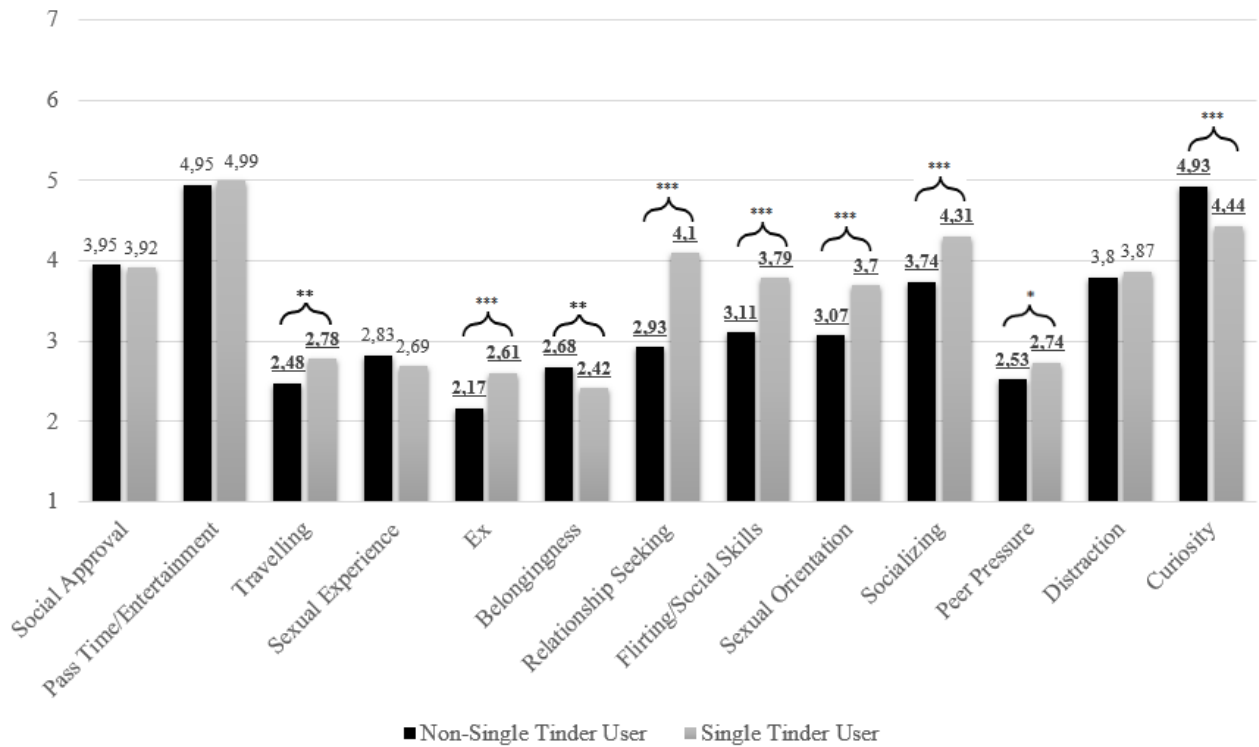
Figure 1. Independent samples *t*-test results comparing non-single Tinder users and single Tinder users on their tinder motives.

In addition to investigate whether these two groups of Tinder users (non-single vs. single) differed on their motives, we considered whether they differ in terms of their online and offline Tinder outcomes, or Tinder-related behaviors. First of all, descriptives were checked (see Table 3), revealing non-normal distributions for two online outcomes (superlikes and self-instigated conversations) and all offline outcomes (as indicated by $SD > M$ or nearly similar scores). For those variables, median scores were provided and non-parametric Mann-Whitney U tests were used instead of independent samples *t*-tests. Concerning the online outcomes, these tests revealed that non-single Tinder users, compared to single Tinder users, report a significantly higher number of other-instigated conversations (small effect) and superlikes (small

effect[2]).

Concerning the offline outcomes, users were first asked whether they ever met with another Tinder user. Of the Tinder users in a committed relationship, 57.7% has had such an offline meeting. This number is significantly higher for single Tinder users (65.3%), $\chi^2(1) = 5.355$; $p < .05$. The Mann-Whitney U tests (see Table 3) revealed that non-single Tinder users score significantly higher than the single Tinder users (in order of effect sizes) on number of reported romantic relationships (medium effect), French kisses, one night stands, and casual sexual relationships (small effects).

Table 3

Means, Standard Deviations, Medians and Independent samples t-Tests and Mann-Whitney U Tests Comparing Non-Single and Single Tinder Users on their Online and Offline Tinder Outcomes

	Non-Single Tinder User ($n = 333$)			Single Tinder User ($n = 1153$)					
Online Tinder Outcomes	*M*	*SD*	*Mdn*	*M*	*SD*	*Mdn*	*t/U*	df	*d/r*
#Right Swipes	2.82	2.24	/	2.70	2.16	/	0.77	1413	.05
#Superlikes [a]	0.62	1.03	0	0.33	0.73	0	114309***	/	-.14
#Matches	4.56	2.86	/	4.25	2.84	/	1.61	1386	.11
#Self-instigated Conversations [a]	2.98	3.01	2	2.79	2.87	2	135622	/	-.03
#Other-instigated Conversations	3.84	2.60	/	2.87	2.20	/	5.56***	347.30	.40

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[2] Cohen's (1988) guidelines for *r* (Mann-Whitney U test) are that a large effect is .50, a medium effect is .30, and a small effect is .10.

Offline Tinder Outcomes

#Meetings [a]	4.39	5.01	3	4.31	5.09	3	55984	/	-.02
#French Kisses [a]	3.66	7.18	2	2.42	4.86	1	44690***	/	-.13
#One Night Stands [a]	2.54	6.32	1	1.54	4.18	1	44907**	/	-.11
#Casual Sexual Relationships [a]	1.60	4.94	1	0.82	2.06	0	43723**	/	-.10
#Friendships [a]	3.24	6.84	1	2.32	4.15	1	51325	/	-.05
#Romantic Relationships [a]	1.06	4.12	1	0.51	3.37	0	30514***	/	-.33

Note. [a] indicates that Mann-Whitney U tests were used. Online Tinder Outcomes are rated on a 10-point scale. Note that there were missings in these variables. *** $p < .001$; ** $p < .01$; * $p < .05$

RQ2a: Do non-single Tinder users differ from single Tinder users and/or non-single non-users in terms of their Big Five personality traits?

To investigate whether these three groups differ on their general personality traits (i.e., the Big Five), we conducted an analysis of variance (ANOVA) with the five personality traits as dependent variables and the grouping variable as the factor. No violations against the assumption of homogeneity of variance were found, as indicated by non-significant results of the Levene's statistic (Agreeableness: $p = .28$; Extraversion: $p = .56$; Neuroticism: $p = .79$; Openness to experience: $p = .85$), except for Conscientiousness ($p = .00$), where a robust asymptotically distributed Welch F test was consulted. In Figure 2, ANOVA results are reported, indicating significant group differences in Agreeableness (F [2, 882] = 11.22, $p = .00$, $\eta^2_p = .03$ [small effect]), Conscientiousness (F [2, 286.72] = 11.05, $p = .00$, $\eta^2_p = .02$ [small effect]) and Neuroticism (F [2, 882] = 3.51, $p = .03$, $\eta^2_p = .01$ [small effect]). To examine which of the three groups significantly differed from each other, Tukey post hoc tests using pairwise comparisons were performed. The results revealed that non-single Tinder users ($M = 3.20$, $SD = .42$) score significantly lower on Agreeableness compared to both single Tinder users ($M = 3.34$, $SD = .39$;

p = .00) and non-users in a committed relationship (*M* = 3.41, *SD* = .42; *p* = .00). The non-single

Tinder users (*M* = 3.20, *SD* = .52), as well as the single Tinder users (*M* = 3.27, *SD* = .45), score

significantly lower on Conscientiousness compared to the non-users in a relationship (*M* = 3.41,

SD = .42; *p* = .00). Finally, non-single Tinder users (*M* = 3.07, *SD* = .50) score significantly

higher on Neuroticism compared to non-users in a committed relationship (*M* = 2.93, *SD* = .49; *p*

= .04).
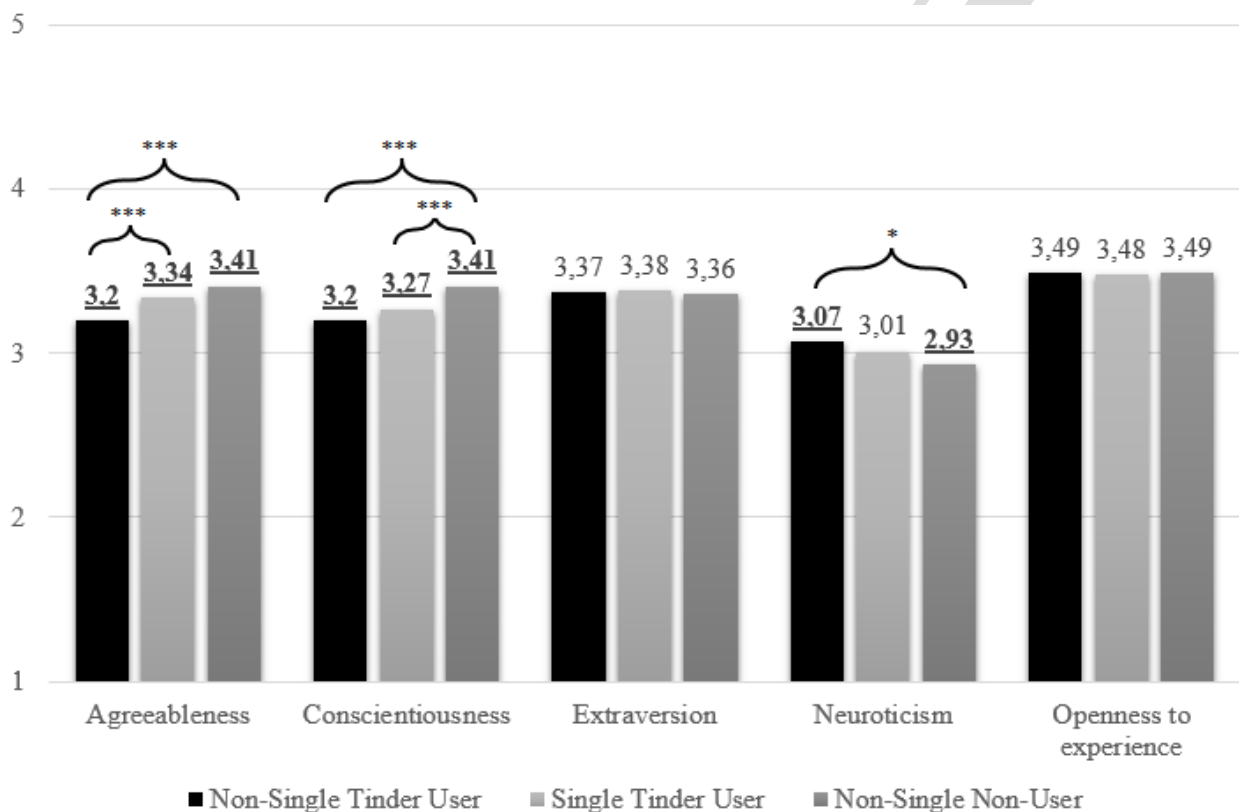
Figure 2. ANOVA results comparing non-single Tinder users, single Tinder users and non-

single non-users on their Big Five personality traits.

RQ2b: What is the nature of the associations between the Big Five personality traits and

non-single Tinder users' motives and offline outcomes?

To find out which Big Five personality traits in non-single Tinder users are associated to

Tinder motives as well as offline Tinder outcomes, correlations were calculated (see Table 4).

Concerning the Tinder motives in this group of non-single Tinder users, Pearson correlation (*r*)

results indicated that Agreeableness is negatively correlated to the Sexual motive ($r = -.23$, $p <$ .05). Conscientiousness is negatively related to Distraction ($r = -.25$, $p < .01$). Extraversion is positively related to Travelling ($r = .25$, $p < .01$). Neuroticism is positively correlated with Pass time/Entertainment ($r = .21$, $p < .05$) and Distraction ($r = .23$, $p < .05$), and negatively with the Sexual motive ($r = -.19$, $p < .05$). Finally, Openness to experience is positively correlated with Travelling ($r = .19$, $p < .05$), Sexual Orientation ($r = .18$, $p < .05$) and Socializing ($r = .21$, $p <$ .05), and negatively with Belongingness ($r = -.24$, $p < .01$).

Concerning the offline Tinder outcomes in this group of non-single Tinder users, descriptive analyses revealed non-normal distributions (as indicated by $SD > M$ or nearly similar scores in Table 2). Hence, non-parametric tests were used. First, this group of non-single Tinder users ($n = 123$) was asked whether they have ever had an offline encounter with another Tinder user, of which 64 non-single Tinder users did (52% of the non-single subsample). Independent samples Mann-Whitney U tests revealed that non-single Tinder users who had one or more offline Tinder encounter(s) score significantly higher on Extraversion ($M = 3.49$, $SD = .38$; $p <$ .001) and Openness to Experience ($M = 3.61$, $SD = .37$; $p < .001$) compared to those who never had an offline encounter with another Tinder user while being in a committed relationship (Extraversion: $M = 3.24$, $SD = .42$; Openness to experience: $M = 3.35$, $SD = .35$). All participants who had an offline encounter with another Tinder user while in a committed relationship ($n = 64$) received six follow-up questions concerning offline Tinder outcomes ("With how many Tinder users did you meet, kiss, etc.?"). Non-parametric Kendall's Tau (t) correlations (see Table 4) indicated that Neuroticism is negatively related to becoming friends with Tinder dates ($t = -.20$, $p < .05$). There were no other significant correlations.

Table 4

Pearson and Kendall's Tau Correlations between the Big Five Traits and Tinder Motives as well

as Offline Tinder Outcomes in Non-Single Tinder Users

Tinder Motives (*n* = 123)	Agreeableness	Conscientiousness	Extraversion	Neuroticism	Openness
Social Approval	-.17	-.06	.09	.12	.09
Pass Time/ Entertainment	.00	-.16	-.10	.21*	.05
Travelling	.00	.00	.25**	-.06	.19*
Sexual Experience	-.23*	-.10	.10	-.19*	.10
Ex	.14	.04	.14	.05	.09
Belongingness	-.07	-.05	-.16	.15	-.24**
Relationship Seeking	.14	.08	.04	.03	.18
Flirting/Social Skills	-.14	.02	-.04	-.02	.06
Sexual Orientation	.02	.04	.12	-.03	.18*
Socializing	.07	.03	.11	.00	.21*
Peer Pressure	.16	-.03	.17	-.02	.01
Distraction	-.16	-.25**	-.09	.23*	.03
Curiosity	.08	-.05	-.17	.17	-.09
Offline Tinder Outcomes (*n* = 64)					
#Meetings [a]	.02	.08	.03	-.04	.02
#Kisses [a]	.08	.14	.05	-.04	.05
#One Night Stands [a]	.03	-.03	.00	.01	.10
#Casual Sexual Relationships [a]	.05	-.01	.05	.03	.00
#Friendships [a]	-.11	.09	.08	-.20*	-.07
#Romantic Relationships [a]	.03	.07	-.07	.02	-.05

Note. [a] indicates that Kendall's Tau correlations were used. *** $p < .001$; ** $p < .01$; * $p < .05$

RQ3a: Do non-single Tinder users differ from single Tinder users and/or non-single non-users in terms of their Dark Triad personality traits?

To examine whether these three groups differ on the Dark Triad traits, we performed an analysis of variance (ANOVA) with the three Dark Triad personality traits as dependent variables and the grouping variable as the factor. No violations against the assumption of homogeneity of variance were found, as indicated by non-significant results of the Levene's statistic (Machiavellianism: $p = .25$; Narcissism: $p = .22$; Psychopathy: $p = .49$). ANOVA results (see Figure 3) indicated significant differences in Psychopathy between the groups (F [2, 468] = 4.84, $p = .008$, $\eta^2_p = .02$ [small effect]). To find out which of the three groups significantly differed from each other, Tukey post hoc tests using pairwise comparisons were performed and revealed that non-single Tinder users ($M = 2.34$, $SD = .61$) score significantly higher on Psychopathy than non-single non-users ($M = 1.96$, $SD = .49$; $p = .007$). There were no other statistically significant differences.
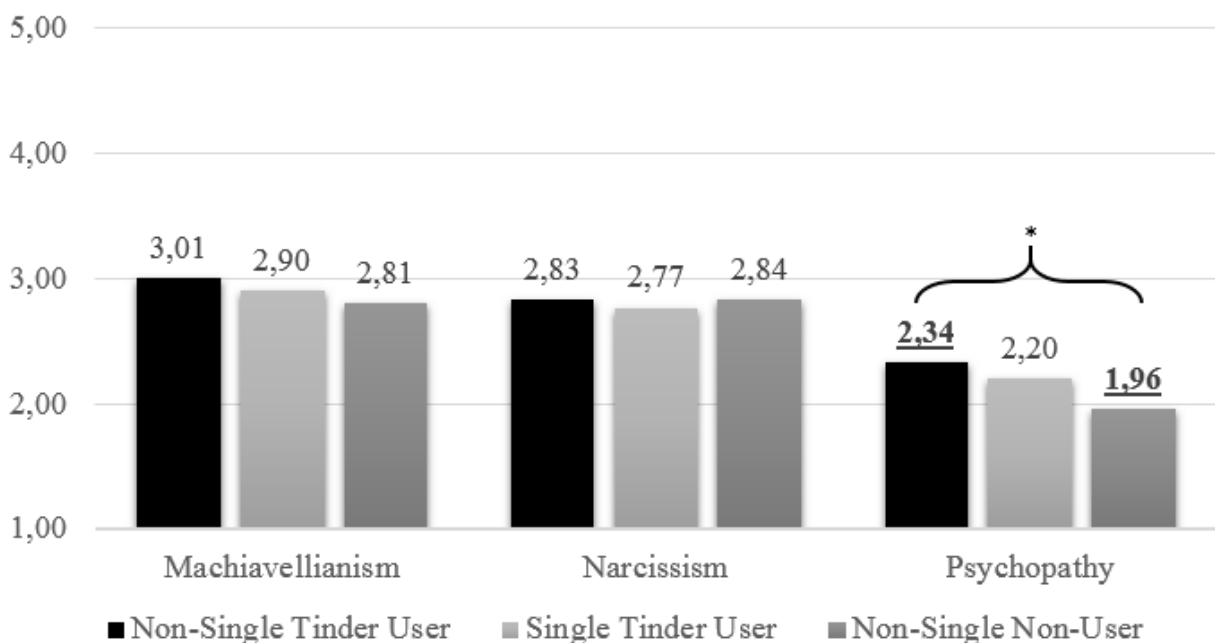

Figure 3. ANOVA results comparing non-single Tinder users, single Tinder users and non-single non-users on their Short Dark Triad traits.

RQ3b: What is the nature of the associations between Dark Triad personality traits and non-single Tinder users' motives and offline outcomes?

To find out which dark personality traits in non-single Tinder users are associated to Tinder motives as well as offline Tinder outcomes, correlations were calculated (see Table 5). Concerning the Tinder motives, Pearson correlation (r) results indicated that Machiavellianism is positively correlated to Social Approval ($r = .28, p < .05$) and Sexual Experience ($r = .27, p < .05$). Narcissism is positively associated with Social Approval ($r = .30, p < .01$), Pass Time/Entertainment ($r = .22, p < .05$), and Distraction ($r = .26, p < .05$). Finally, Psychopathy is positively associated with the Sexual motive ($r = .31, p < .01$).

Concerning the offline Tinder outcomes in this group of non-single Tinder users, descriptive analyses again revealed non-normal distributions (as indicated by $SD > M$ or nearly similar scores in Table 2). Hence, non-parametric tests were used. First, this group of non-single Tinder users ($n = 81$) was asked whether they have ever had a face-to-face encounter with another Tinder user, of which 48 did. Independent samples Mann-Whitney U tests revealed no significant differences on the dark personality traits between those who had versus have not had one or more face-to-face encounters with other Tinder user(s) while being in a committed relationship. All participants who had had an offline Tinder encounter while being in a relationship ($n = 48$) received six follow-up questions concerning their offline outcomes ("With how many Tinder dates did you meet, kiss, etc?"). Non-parametric Kendall's Tau (t) correlations indicated that the non-single Tinder users scoring high on Psychopathy have had more one night stands ($t = .29, p = .01$). No other significant associations were found.

Table 5

Pearson and Kendall's Tau Correlations between the Short Dark Triad Traits and Tinder Motives as well as Offline Tinder Outcomes in Non-Single Tinder Users

Tinder Motives ($n = 81$)	Machiavellianism	Narcissism	Psychopathy
Social Approval	.28*	.30**	.14
Pass Time/Entertainment	.15	.22*	-.02
Travelling	-.11	.10	-.02
Sexual Experience	.27*	.16	.31**
Ex	-.10	.06	.03
Belongingness	.08	.14	.08
Relationship Seeking	-.06	-.09	.07
Flirting/Social Skills	.09	-.15	.04
Sexual Orientation	.09	.06	.16
Socializing	-.11	-.15	-.09
Peer Pressure	.09	.05	.14
Distraction	.03	.26*	.08
Curiosity	.03	.11	-.11
Offline Tinder Outcomes ($n = 48$)			
#Meetings [a]	-.11	.03	.04
#French Kisses [a]	-.10	.17	.15
#One Night Stands [a]	.14	.12	.29*
#Casual Sexual Relationships [a]	.06	.23	.14
#Friendships [a]	.07	.00	.05
#Romantic Relationships [a]	-.17	-.06	.04

Note. [a] indicates that Kendall's Tau correlations were used. *** $p < .001$; ** $p < .01$; * $p < .05$

Discussion

The current study serves as an in-depth investigation of people who use the mobile dating

app Tinder while simultaneously in a committed romantic relationship. We specifically

examined how non-single, compared to single, Tinder users differed in their motives for using the app, their personality traits, and their engagement in online and offline behaviors with other Tinder users. When examining users' personality traits, we compared non-single Tinder users with both single Tinder users and non-single non-users.

When comparing non-single Tinder users with single Tinder users in terms of their Tinder motives and outcomes, we found that Tinder users who reported being in a romantic relationship scored significantly lower than single Tinder users on a number of Tinder motives such as Relationship Seeking, Flirting, Sexual Orientation, and Forget Ex. These motives in particular seem to reflect a user's need to establish a connection with others, so it is unsurprising that non-single Tinder users exhibit a low level of interest in finding another relationship. Rather, this pattern suggests that non-single Tinder users are more interested in seeking short-term encounters, satisfying their curiosity about the current dating market, and understanding their own value as a potential dating partner. **This finding has implications for Social Exchange Theory (SET; Roloff, 1981). In short, SET assumes that people evaluate their close relationships based on a system of costs and rewards: If a relationship is thought to be more costly than it is rewarding, it is unlikely that the relationship will flourish. Examples of relationship costs include unwanted emotional stress, financial costs, and time commitment. Tinder users who are already in a committed relationship may view the relationships they form on Tinder to be costly; should the user's romantic partner find out about his or her Tinder activity, this could cause the relationship to end. This may explain why many non-single Tinder users exhibit a low level of investment in forming such relationships. However, it should be noted that SET and participants' perceived costs and rewards of using Tinder was not directly tested, and should be considered in future research.**

To this end, non-single Tinder users also reported a higher number of other-instigated conversations. It is possible that the Curiosity motive to try out the app and to "see what's out there" occurs in conjunction with waiting for the other user to initiate a conversation. From an evolutionary psychology perspective, this suggests that non-single Tinder users are more likely to wait for their matches to initiate conversations because of their low-investment mating strategies. For instance, a person who is already in a committed relationship, but wants to explore other options by downloading Tinder, may approach the app with a very laissez-faire attitude and wait to see if others show romantic or sexual interest in them first. This is supported by a study that found that being in a committed relationship increased the odds of having others start a conversation on Tinder (Timmermans & Courtois, 2018).

Interestingly, more than half of the Tinder users who reported being in a relationship also reported having an offline encounter with another Tinder user. Though this was even more common among single Tinder users, this suggests that non-single Tinder users are willing to act on their curiosity about other potential partners. It is possible that non-single Tinder users who go as far as to meet their Tinder matches face to face are more serious about developing an ongoing relationship, potentially establishing an affair or a backburner relationship. However, we suspect that the willingness to meet another Tinder user offline while in a committed romantic relationship would be moderated by the user's relational satisfaction with his or her current partner. The survey instrument of the current study did not contain measures about the length of the committed relationship or level closeness/satisfaction with the current partner at the time of having the offline encounter with another Tinder user; therefore follow-up research on Tinder users' investment in their offline relationships is encouraged.

The Big Five personality profile of non-single Tinder users was examined. Non-single Tinder users were significantly less agreeable than single Tinder users and non-single non-users. This finding is in line with previous studies that have shown a significant association between

lower Agreeableness and lower relationship exclusivity (Barta & Kiene, 2005; Schmitt & Shackelford, 2008), given that those with lower scores on Agreeableness are less thoughtful and caring of others. Non-single and single Tinder users scored significantly lower on Conscientiousness compared to non-single non-users, which is in line with a study in which single non-users scored significantly higher on Conscientiousness compared to single Tinder users (Timmermans & De Caluwé, 2018b). In addition, non-single Tinder users scored significantly higher on Neuroticism compared to non-single non-users. It might be that these individuals use Tinder out of romantic insecurity, as they need a lot of attention and approval (Shaver & Brennan, 1992), getting matches on Tinder is one way of getting this approval. It is also possible that more neurotic individuals are more sensitive to conflict or turbulence in their committed relationships, and thus turn to Tinder for comfort from other potential dating partners. A longitudinal study found that people's self-reports of Neuroticism significantly predicted lower levels of marital and sexual satisfaction with their spouses (Fisher & McNulty, 2008).

We then examined the association between non-single Tinder users' Big Five personality traits and their motives for using the app. We found that Extraversion and Openness were positively associated with motives related to seeking opportunities for meeting other people, such as Travelling, and Openness was positively associated with Sexual Orientation and Socializing. In addition, non-single users who had one or more offline Tinder encounters scored higher on Extraversion and Openness compared to those who had never had such an encounter, which speaks to these users' affinity for expanding their social opportunities. Conscientiousness was negatively associated with Distraction, which suggests that those who have a great attention to detail would be likely to engage in dating apps with care and vigilance, paying special attention to the information presented about other users. These findings are particularly straightforward because the motives reflect key characteristics of the Big Five personality traits.

There were also several findings worthy of additional attention. First, in the non-single Tinder users, Agreeableness was negatively associated with the Sexual Experience motive. A meta-analysis examining the dynamic between personality and risky sexual behavior emphasized the consistent relation between low Agreeableness and several risky sexual behaviors (Hoyle, Fejfar, & Miller, 2000). An interpersonal style that is low in Agreeableness, also known as an antagonistic interpersonal style, is typically accompanied by a tendency to deceive and distrust others. It has also been associated with having more sexual partners, using alcohol and drugs during a sexual encounter, and having sex outside of a committed relationship (Miller et al., 2004). Therefore, it is possible that someone low in Agreeableness would be less likely to seek out or maintain long-term relationships, and in turn, spend more time single and engaging in short-term encounters.

Second, in this group of non-single Tinder users, Neuroticism was positively associated with the Pass Time and Distraction motives and was negatively associated with the Sexual Experience motive. This suggests that highly neurotic individuals, who are emotionally reactive, use online media platforms like dating apps as a means of mood management. Rather than using Tinder for the purpose of finding new sexual partners, and thus increasing the likelihood of stressful encounters, people high in neuroticism use Tinder as a way to occupy time. Although this finding is inconsistent with previous research that indicates that Neuroticism is associated with short-term mating (e.g., Schmitt & Shackelford, 2008), this pattern was not consistent across sex and geographic location. Nevertheless, Neuroticism is still a significant differentiating factor between non-single non-users and non-single Tinder users, with the latter scoring significantly higher on Neuroticism.

Our third research question focused on the associations between the Dark Triad personality traits and Tinder use, motives, and outcomes. Again, we first compared non-single users with both single Tinder users and non-single non-users on their dark personality traits.

Non-single Tinder users scored higher on Psychopathy compared to non-single non-users, and in turn, Psychopathy in this group of non-single Tinder users was associated with the Sexual Experience motive for using Tinder. This pattern is consistent with previous studies that report a link between Psychopathy and low-investment, short-term mating strategies. The dark personality traits, when examined from a social-relational perspective, are characterized by impulsive and opportunistic communication with other people, including potential romantic or sexual partners. Previous research has found that the dark personality traits are associated with being sociosexually unrestricted, an increased interest in seeking short-term partners, and for Psychopathy in particular, seeking out potential partners for the purpose of maintaining self-interest (Jonason et al., 2011). Therefore, to the extent that Tinder can afford users with more opportunities to connect with potential sexual partners, individuals scoring high on Psychopathy are indeed more likely to use Tinder in order to create a target-rich mating environment. This logic is even more so confirmed by our results, as non-single Tinder users scoring high on Psychopathy reported significantly more one night stands.

Of note, Machiavellianism and Narcissism in non-single Tinder users were positively associated with the Social Approval motive. Although the relationship between Tinder use and the Dark Triad personality traits for non-single users has, to our knowledge, not previously been examined, previous research has established a relationship between these personality traits and behaviors that facilitate gaining the approval of others. For example, Machiavellianism has been associated with self-promotion and self-monitoring on social networking sites (SNSs; Abell & Brewer, 2014), and Narcissism has been associated with SNS use and smartphone addiction (Pearson & Hussain, 2016). In addition, narcissists are likely to use some of the key features of SNSs, such as adding photos of oneself, because these types of media platforms allow for a high level of control over self-presentation (Wang, Jackson, Zhang, & Su, 2012). SNS use is similar to dating app use in that both SNSs and dating apps provide users with the opportunity to meet

new people, self-promote, and potentially increase one's sense of self-importance by fostering

new relationships. Such outcomes are very important to those high in Narcissism and the Dark

Triad personality traits (Campbell & Miller, 2011).

Limitations and Future Directions

While this study adds to the literature on online dating and infidelity, it is not without

limitations. In the framework of this study we conceptualize infidelity as actively using a Tinder

account by swiping, matching and having conversations with other Tinder users, as well as

having offline (sexual) interactions with other users. Yet, the literature on online infidelity also

includes sexting and having an emotional affair with another Tinder user (e.g., Whitty, 2005).

Consequently, an avenue for future research would be to focus more in-depth on non-single

users' online Tinder infidelity by including measures related to sexting and online emotional

infidelity. Additionally, as we do not have information on the length of the relationship of non-

single Tinder users at the moment of inquiry, as well as the fact that users might have been

reporting on their lifetime Tinder outcomes (i.e., at least since the arrival of this dating app in

2012; Emerging Technology from the arXiv, 2017), it might be possible non-single users also

reported on their offline Tinder outcomes while being single. Finally, given that our sample on

dark personality traits and Tinder users is quite small ($n = 81$), it is possible that we might not

have had enough statistical power to detect smaller effects. Similarly, for research questions

RQ2b ($n = 64$) and RQ3b ($n = 48$), we worked with small subgroups, suggesting that we might

not have had enough statistical power to detect significant differences related to associations

between personality and offline Tinder outcomes.

Another reason why we found relatively few significant differences for the Dark Triad

personality traits might be due to the measurement used. As we used a relatively short

measurement of the Dark Triad for this study, more extensive measurements might yield more

exhaustive associations with Tinder outcomes. For instance, the Self-Report Psychopathy Scale

(Levenson, Kiehl, & Fitzpatrick, 1995), separates the concept of psychopathy into the primary psychopathy subscale assessing manipulative, selfish, and uncaring traits and the secondary psychopathy subscale, measuring anti-social behavior. Others argue that it is better to use the HEXACO model of personality instead of the Big Five and the Dark Triad separately (Lee & Ashton, 2014). In addition, as we relied on self-reports, we might not have succeeded in capturing the dark personality traits, as participants are likely to overestimate possession of socially desirable qualities and may be unlikely to report negative behaviors such as the use of manipulation (Pedregon, Farley, Davis, Wood, & Clark, 2012). **As such, future research could turn to new digital research methods (e.g., experience sampling; secondary analysis of existing data from a mobile dating app platform) in order to examine patterns of use related to infidelity on mobile dating apps.**

Conclusion

This study describes the personality profile of people who use the mobile dating app Tinder while simultaneously in a committed romantic relationship. The findings provide insight on how this group's individual differences are related to psychological and behavioral outcomes. Research in the fields of Communication and Psychology have long investigated the traits and predictors associated with cheating behaviors (e.g., Barta & Kiene, 2005; Brewer, G., & Abell, 2015; Weiser et al., 2017). However, given the new dynamic that dating apps have brought to romantic relationships, it is important to continue investigating how people use these technologies to facilitate extradyadic sexual and romantic behavior. The current research was the first to examine the role of Tinder motives and (dark) personality traits in dating app infidelity and compared scores with both single Tinder users and non-single non-users.

Affordances offered by mobile dating apps may encourage infidelity. For instance, mobile dating apps' ease of use and addictive components induced by its swipe logic and visual dominance (Chan, 2017; David & Cambre, 2016) may encourage many users to turn

to mobile dating apps for entertainment (Timmermans & De Caluwé, 2017a), including users who are in a committed relationship. However, the proximity affordance of such dating apps intensifies the immediacy and ability of users to have instantaneous meetings in real life (Duguay, 2017; Yeo & Fung, 2016). This affordance thereby not only generates accessible (sexual) encounters for single users, but also for those in a committed relationship. Notably, our study shows that not everyone in a committed relationship will be tempted by the designs of such dating apps, but this is true for some (e.g., those with higher scores on Psychopathy) more than others.

Our results also have practical implications. The findings in this study suggest that attention should be paid to non-singles users' motives for dating app use, as well as their personality traits. In a technological society, our ideas of what constitutes infidelity are constantly changing, yet rarely discussed between partners (Perel, 2017). While for some, having a partner who created an account on a mobile dating app might be perceived as infidelity, others only perceive it as infidelity when that partner actually meets face to face with another person for a sexual or romantic encounter. Given the range of Tinder motives for non-single users, it would be beneficial for partners to discuss their ideas of infidelity on mobile dating apps to avoid confusion or disappointments. Online dating companies, in turn, should be more aware of the significant psychological impact their addictive design has on its users, given that even those in a committed relationship feel tempted to use their product.

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Highlights

- Between 18-25% of Tinder users is in a committed relationship while on Tinder

- Non-single vs. single Tinder users differ significantly on nine Tinder motives

- Non-single Tinder users are more likely to report casual sexual behavior

- Personality differences were found between non-single users and other groups

- Non-single users' personality was significantly related to their Tinder motives