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Do People Get the Friends They Want? A Cross-Cultural Investigation

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ABSTRACT

People desire friends who have qualities such as similarity, the ability to provide support, opportunities for socialisation, assistance in achieving self-serving goals and access to potential mates. In the current study, we aimed to examine the degree of overlap between the friends people consider ideal and those they actually have. Using a sample of 6224 participants from 12 countries, we found that, across five dimensions of friendship, ideal and actual friendships considerably overlapped and ideal preferences were significant and strong predictors of actual friendships. Still, the overlap between ideal and actual friendships was not complete; rather, a small deficit emerged, with participants getting less of what they wanted. These results were consistent across the 12 countries in our sample. We also found significant effects of the Dark Triad personality traits on several dimensions of friendship.

1 | Introduction

Friendship, defined as lasting relationships with genetically unrelated individuals based on mutual affection and support (Fehr 1996; Hruschka 2010), constitutes an important aspect of human interaction (Dunbar 2022). The present research aims to address whether people succeed in forming the friendships they desire. In particular, people prefer friends who can serve specific purposes, such as providing them with support (Apostolou et al. 2021), and the current study investigates the degree to which

the friends people perceive they have deviate from what they prefer to have. The present study aims further to examine whether this capacity is predicted by the Dark Triad personality traits. Friendship formation can be understood within an evolutionary theoretical framework, which we will discuss next.

1.1 | The Nature of Friendship

People can better face the challenges of survival and reproduction with the assistance of others. In hunting and gathering societies,

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large game hunting requires effective cooperation among groups of men (Lee and Devore 1968). Additionally, child rearing is a challenging endeavour that demands considerable resources, such as time, prompting women to share childcare responsibilities (Hrdy 2009). Similarly, defending against external and internal threats requires effective cooperation, especially among men (Lee and Devore 1968; Chagnon 1992). Furthermore, most of human evolution occurred in a pre-industrial context where, in the absence of social safety nets, people had to rely on others in times of need. Consequently, there are high survival payoffs for those who establish relationships with others they can effectively cooperate with and rely upon in times of need (Aktipis et al. 2016; Tooby and Cosmides 1996).

Humans are inherently social, having evolved to live in groups (Aronson 1980). Group living provides advantages such as better protection from enemies and wild animals (Ward and Webster 2016). Additionally, group living offers opportunities for individuals to consult others and benefit from their knowledge and experience in addressing personal challenges (Hruschka 2010). In effect, there are substantial benefits for those who maintain a reliable social network, having others who are consistently available. Moreover, people can use relationships to achieve self-serving goals (Lewis et al. 2011). For example, as friends tend to help each other (Dunbar 2022), individuals may befriend someone like a supervisor to achieve personal objectives, like securing a job promotion. In effect, friendship may enable people to achieve self-serving goals. Similarly, friendships can enable individuals to find intimate partners (Bleske-Rechek and Buss 2001). For example, through friendship, people may expand their social network, which in turn allows them to meet prospective mates (Apostolou et al. 2021).

Given the benefits of friendship outlined above, it can be hypothesised that people form friendships to receive reliable social support and interaction, achieve their self-serving goals and gain access to potential mates. Consistent with this framework, one study investigated different reasons why people form friendships in the Greek cultural context (Apostolou et al. 2021). The researchers identified 41 reasons and used exploratory factor analysis to classify them into five broader factors. The most important reason was ‘Desirable traits’, where participants sought friends with desirable characteristics, such as trustworthiness and compatibility. The second most important reason was ‘Socialising’, where participants indicated they would make friends to connect and socialise with others. Third in the hierarchy was ‘Support’, where participants sought friends who would provide emotional and material support and on whom they could rely during difficult times. Additionally, participants indicated they would form friendships for ‘Career’ (e.g., befriending a boss to get a job promotion) and ‘Mating’ (e.g., securing an intimate partner) reasons.

1.2 | What Kind of Friends Do People Want?

Based on the findings and theoretical arguments discussed above, it can be hypothesised that people predominantly want friends who can support them, provide social interaction and, in some instances, offer access to potential mates and help them achieve self-serving goals. Yet, not all prospective friends can fulfil these

roles. For instance, selfish and unkind individuals are less likely to provide emotional and material support compared to selfless and kind ones. Accordingly, people tend to prefer friends with traits such as selflessness and kindness. Using a mixed-methods approach, one study identified 10 traits that people consider desirable in a friend, with the highest-rated being honesty, followed by being ethical, pleasant, available, discreet, tolerant, empathetic, fun, smart and alike (Apostolou and Vetsa 2022). The study also identified three traits people preferred their friends did not have, namely dishonesty, impatience and competitiveness. Another study asked participants to rate the desirability of several traits in a friend using exploratory factor analysis to classify them into two broader categories (Ayers et al. 2023). The first category included traits that signalled intrinsic valuation of the friendship, such as being supportive and honest, while the second category included traits that signalled the instrumental value of the friendship, such as providing material benefits and not nagging.

Based on the findings of the Apostolou et al.’s (2021) study, a recent investigation developed an instrument to measure the different kinds of friends people want in a sample from 12 nations (Apostolou et al. 2024). They found that the most important consideration was having friends who are compatible and possess desirable traits such as good character, friends who would support them, with whom they could socialise, who could help achieve self-serving goals such as career advancement and who might provide access to potential mates. They also found that the five-factor structure from previous research and the hierarchy of importance were generally consistent across the different cultures in the sample. The question that now arises is whether people actually get the friends they want.

1.3 | Do People Get the Friendships They Want?

The fitness benefits of friendship translate into selection pressures that shape adaptations such as loneliness and friendship preferences, enabling individuals to form desirable friendships. Accordingly, it could be argued that people are generally effective in getting the friends they want. Still, factors such as the mismatch problem and deception can undermine this effectiveness.

To begin with, psychological mechanisms, in general and those involved in friendship formation, in particular, were shaped by selection forces in ancestral rather than contemporary human societies (Tooby and Cosmides 1990, 1996). Yet, because the ancestral environment was very different from the contemporary one in many respects, these mechanisms may not always be effective today, a concept known as the mismatch problem (Li et al. 2017). To the best of our knowledge, no study has examined how the ancestral environment related to friendship differs from the contemporary one. Nonetheless, it could be reasonably argued that there are considerable differences, such as ancestral pre-industrial societies being much smaller, with people knowing each other well, compared to contemporary ones. Therefore, mechanisms involved in friendship may not work efficiently in the contemporary context, leading to people not always being effective in choosing the friends they want.

The mismatch problem is not the only reason why actual friendships may not match desirable ones. Research indicates that

mating and achieving self-serving goals are two main reasons for making friends (Apostolou et al. 2021). This finding suggests that there should be considerable deception in the domain of friendship. People may pretend to want to be friends with others because they like them, while their true purpose is different. For example, people may pretend to like their bosses as friends, although they despise them, to establish friendships that would lead to favourable treatment in the future. To the extent that such deception is effective, people may frequently find themselves in situations where their friends are not what they originally thought they were. Deception is likely to interact with the mismatch problem, making the endeavour of finding appropriate friends even more difficult. In particular, the contemporary context, where most people live in large cities and do not know each other well, can favour deception. As living in big cities is evolutionarily novel, there has not been sufficient time for selection forces to shape people to be more vigilant against deception, making them vulnerable in the domain of friendship.

1.3.1 | The Dark Triad and Friendship

The Dark Triad refers to a group of three subclinical socially undesirable personality traits: Narcissism, Psychopathy and Machiavellianism (Paulhus and Williams 2002). More specifically, Narcissism is characterised by grandiosity, attention-seeking, feelings of entitlement and superiority, egotism, extraversion and a lack of empathy (Corry et al. 2008). Machiavellianism is characterised by deception, manipulation and exploitation of others (Jakobwitz and Egan 2006). Psychopathy is characterised by deficits in both self-control (e.g., impulsivity, recklessness and thrill-seeking) and affect (e.g., callousness), as well as low empathy and antisocial behaviour (Lykken 1995).

Previous research has found that higher scores in Machiavellianism and Narcissism indicated a greater willingness to make friends who would help achieve self-serving goals (Apostolou et al. 2024; see also Jonason and Schmitt 2012). The Dark Triad may also play a role in whether people obtain friends who meet their preferences. There are two possibilities: First, the deceptive and manipulative nature of Dark Triad traits (Paulhus and Williams 2002) could make individuals possessing them more effective at securing the friends they want. By excelling in deception and manipulation, high scorers can effectively target individuals who match their friendship preferences and persuade them to become their friends. On the other hand, these same traits could make high scorers undesirable as friends, potentially hindering their ability to obtain the friends they want. High scorers in the Dark Triad may develop a bad reputation, which could impair their capacity to get the friends they desire. Accordingly, in the current study, we aim to examine the effect of Dark Triad personality traits on the degree to which individuals acquire the friends they desire, without making directional hypotheses.

1.4 | The Current Study

People prefer to have friends who can serve specific purposes, such as providing support and enabling socialising. The question the present study aims to address is whether the friends people envision match the friends they perceive they actually have.

Theoretical reasons discussed in the previous section suggest that people have a good capacity to get friends they want, but to the best of our knowledge, no other studies have attempted to examine how effective people are in getting the friends they want. Lacking previous research and a clear prediction from our theoretical perspective, we will not make directional predictions but will approach the study as exploratory. Furthermore, the capacity to get desirable friends is likely to be by the Dark Triad traits, which we aim to investigate also without making directional hypotheses.

2 | Methods

2.1 | Participants

The current study analysed a subsection of the dataset collected by Apostolou et al. (2024). More specifically, the original study included a sample of 6224 participants (3508 women, 2685 men, 29 who indicated 'other' sex and 22 who did not indicate sex) recruited from 12 countries: China, Greece, India, Iran, Japan, Jordan, Kuwait, Mozambique, Peru, Poland, Turkey and Ukraine. Full demographic information for the sample can be found in the Supporting Information A, Table S1. The research received ethical approval from the respective ethics committees in each country. Additionally, the only requirement for taking part was that participants were at least 18 years old. All data are available here: https://osf.io/eskcm/?view_only=d867ec56192e44579636e78c35ddc028.

With respect to reimbursement, participants in the Japanese and Polish samples received monetary compensation or credits that could be exchanged for a product. For the Ukrainian sample, participation was both voluntary and compensated. Japanese participants were recruited through a private recruitment agency (<https://www.cross-m.co.jp/>). Similarly, a private agency was also used to recruit participants from Ukraine (<https://anketolog.ru>). Polish participants were recruited from a Polish national survey panel (<https://panelariadna.pl/>). For China, Iran, Kuwait, Mozambique, Peru and Turkey, participants were obtained through a combination of convenience and snowball sampling. In India, the study link was forwarded to undergraduate students and also circulated on social media. In Jordan, the study link was forwarded to students, who were also asked to forward it further. For the Greek sample, the link was distributed to students and colleagues and advertised on social media platforms such as Facebook and Instagram.

2.2 | Materials

The instruments used were translated into the primary language of each country in the sample using the back translation method. Additionally, the survey was conducted online and was administered using Google Forms, Microsoft Forms, Qualtrics, or Sojump data collection formats. The survey consisted of four parts. In the first part, participants were asked the following: 'Please indicate your agreement or disagreement with the sentences below. I want to have friends': and then they were asked to rate the 15 items of the instrument developed by Apostolou et al. (2024) on the following scale: 1—Strongly disagree to 5—Strongly agree.

Sample items included ‘Who would help and support me’, ‘With whom we have common interests’ and ‘Who could help me with my career’. In the second part, Dark Triad traits were measured using the Short Dark Triad (SD3) instrument, which has good validity and reliability (Jones and Paulhus 2014). The instrument consisted of 27 questions that participants had to answer using a five-point scale: 1—Strongly disagree to 5—Strongly agree. In the third part, participants were asked the following: ‘Please indicate your agreement or disagreement with the sentences below. Currently I have friends’: and then they were asked to rate the 15 items of the instrument on the following scale: 1—Strongly disagree to 5—Strongly agree. In the fourth part of the study, demographic information, including biological sex and age, was collected.

2.3 | Data Analysis

The Apostolou et al. (2024) study, on which the present dataset was based, employed confirmatory factor analysis and found that a five-factor structure, originally identified by Apostolou et al. (2021), fit the data and was consistent across the different cultures in the sample. Accordingly, we created new variables based on the previously identified structure. In particular, we created 10 new variables: five variables representing the types of friends participants wanted—‘ideal’—and five variables representing the types of friends participants had—‘actual’. We did this by averaging the scores of the items belonging to each of the five dimensions of friendship.

Statistical analyses were conducted in three steps to examine the degree of congruence between ideal and actual friends. First, to assess rank-order consistency—the degree to which participants with higher standards relative to the sample secured friends with relatively higher trait levels—we calculated Pearson’s (*r*) correlations between preferred and actual scores for each of the five

friendship dimensions. Second, to examine absolute congruence and determine if there was a mean-level discrepancy (deficit) between ideals and reality, we conducted paired-samples *t*-tests comparing the mean ‘ideal’ scores to the mean ‘actual’ scores for each dimension. Effect sizes for these mean differences were estimated using Cohen’s *d*. Third, to identify the unique predictors of actual friendship traits while controlling for demographic and personality factors, we performed a series of General Linear Models (ANCOVA). For each dimension, the ‘actual’ friendship score was entered as the dependent variable. The corresponding ‘ideal’ friendship score was entered as the primary independent variable to test the calibration between preference and outcome (i.e., the slope of the relationship). The Dark Triad scores (Machiavellianism, Narcissism, Psychopathy) were entered as independent variables. This approach allows for the assessment of whether personality traits predict friendship outcomes after statistically holding constant the participants’ initial preferences. Participants’ age, and sex, were entered as covariates. The sample (12 levels) was entered as a random factor. Effect sizes for the models were reported using partial eta squared. The analysis was performed separately on each sample, and the results are found in the Supporting Information B section Tables S1–S11. Moreover, we calculated means and standard deviations, as well as zero order correlations for all variables of the analysis (Supporting Information C).

3 | Results

3.1 | Preferred and Actual Friendships

Table 1 indicates that, for most dimensions, there was a significant, moderate positive correlation between preferred and actual friendships. Figure 1 depicts the relationship between ideal and actual scores for the compatibility and other desirable traits dimension (see Supporting Information D for figures

TABLE 1 | Pearson’s correlation coefficients between actual and ideal friendships.

Sample	Compatibility and other desirable traits				
	<i>r</i>	Support <i>r</i>	Socialising <i>r</i>	Self-serving goal <i>r</i>	Mating <i>r</i>
Pooled	0.52**	0.52**	0.55**	0.57**	0.69**
China	0.70**	0.61**	0.73**	0.76**	0.72**
Greece	0.39**	0.44**	0.44**	0.63**	0.65**
India	0.47**	0.47**	0.54**	0.59**	0.72**
Iran	0.37**	0.42**	0.47**	0.38**	0.59**
Japan	0.49**	0.48**	0.51**	0.51**	0.56**
Jordan	0.47**	0.46**	0.50**	0.41**	0.56**
Kuwait	0.42**	0.46**	0.49**	0.51**	0.51**
Mozambique	0.47**	0.55**	0.62**	0.25**	0.60**
Peru	0.51**	0.39**	0.34**	0.29**	0.56**
Poland	0.50**	0.49**	0.53**	0.62**	0.72**
Turkey	0.51**	0.51**	0.56**	0.57**	0.72**
Ukraine	0.53**	0.53**	0.56**	0.60**	0.68**

***p* < 0.001.

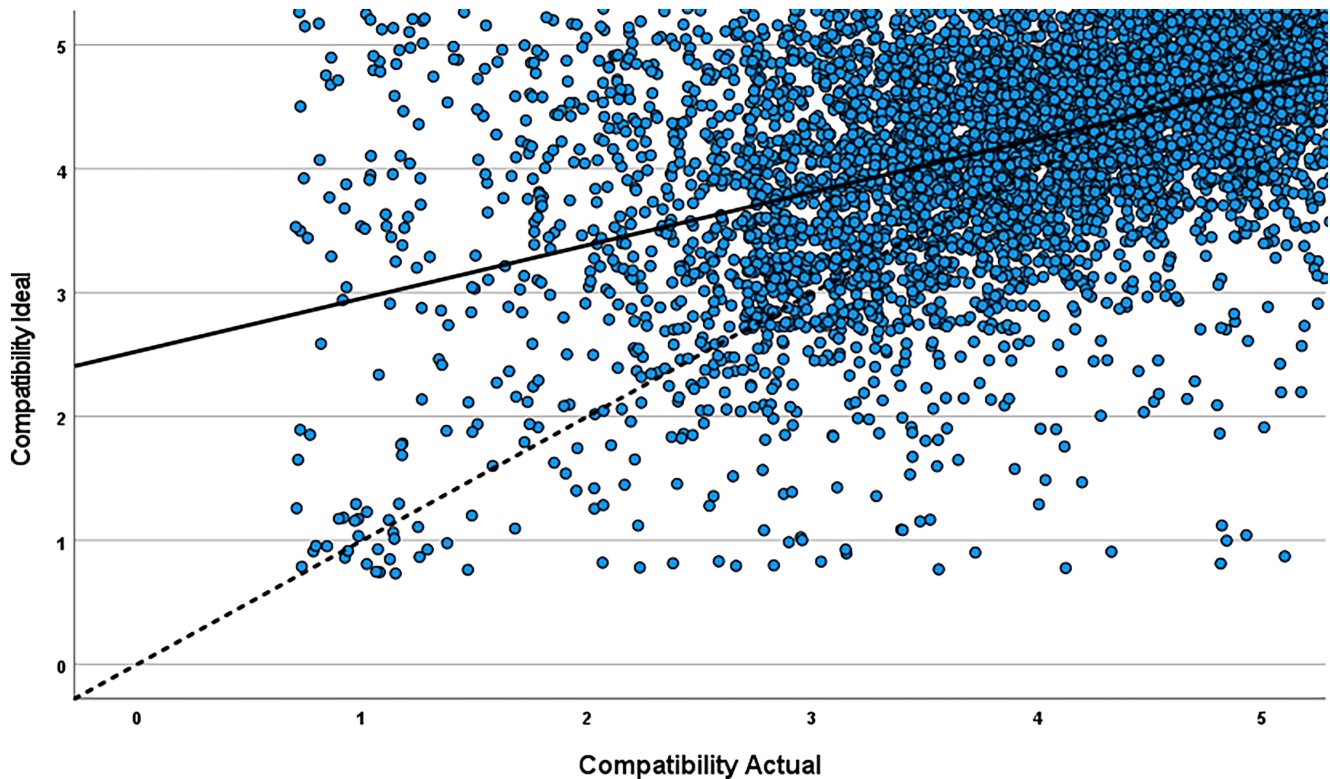


FIGURE 1 | The figure above is a scatterplot with the ideal and actual scores for the ‘compatibility and other desirable traits’ dimension. The plot included the regression line and an indicator line for perfect agreement.

TABLE 2 | Paired samples *t*-test analysis on differences between actual and ideal friendships.

Sample	Compatibility and other desirable traits			Support			Socialising			Self-serving goal			Mating		
	Actual-ideal	<i>p</i>	<i>d</i>	Actual-ideal	<i>p</i>	<i>d</i>	Actual-ideal	<i>p</i>	<i>d</i>	Actual-ideal	<i>p</i>	<i>d</i>	Actual-ideal	<i>p</i>	<i>d</i>
Pooled	-0.26	< 0.001	0.31	-0.31	< 0.001	0.33	-0.20	< 0.001	0.22	-0.27	< 0.001	0.26	-0.28	< 0.001	0.30
China	-0.08	< 0.001	0.15	-0.13	< 0.001	0.21	0.03	0.223	0.05	-0.08	< 0.001	0.13	-0.12	< 0.001	0.18
Greece	-0.39	< 0.001	0.51	-0.52	< 0.001	0.58	-0.41	< 0.001	0.43	-0.39	< 0.001	0.42	-0.44	< 0.001	0.58
India	-0.48	< 0.001	0.16	-0.19	< 0.001	0.21	-0.11	< 0.001	0.13	-0.09	0.009	0.10	-0.27	< 0.001	0.32
Iran	-0.37	< 0.001	0.44	-0.39	< 0.001	0.38	-0.18	< 0.001	0.18	-0.35	< 0.001	0.33	-0.25	< 0.001	0.28
Japan	-0.39	< 0.001	0.40	-0.47	< 0.001	0.45	-0.37	< 0.001	0.36	-0.40	< 0.001	0.42	-0.38	< 0.001	0.39
Jordan	-0.48	< 0.001	0.42	-0.39	< 0.001	0.33	-0.33	< 0.001	0.30	-0.48	< 0.001	0.40	-0.34	< 0.001	0.31
Kuwait	-0.19	< 0.001	0.20	-0.12	0.010	0.11	-0.02	0.669	0.02	-0.17	< 0.001	0.16	-0.25	< 0.001	0.23
Mozambique	-0.64	< 0.001	0.78	-0.49	< 0.001	0.64	-0.23	< 0.001	0.33	-0.59	< 0.001	0.49	-0.26	< 0.001	0.28
Peru	-0.10	0.009	0.13	-0.31	< 0.001	0.31	-0.62	< 0.001	0.55	0.27	< 0.001	0.22	-0.30	< 0.001	0.30
Poland	-0.26	< 0.001	0.38	-0.33	< 0.001	0.43	-0.25	< 0.001	0.32	-0.34	< 0.001	0.39	-0.36	< 0.001	0.44
Turkey	-0.21	< 0.001	0.29	-0.26	< 0.001	0.34	-0.09	< 0.001	0.12	-0.34	< 0.001	0.36	-0.21	< 0.001	0.21
Ukraine	-0.14	< 0.001	0.18	-0.31	< 0.001	0.33	-0.17	< 0.001	0.21	-0.36	< 0.001	0.40	-0.27	< 0.001	0.32

of the remaining three dimensions). These findings suggest that individuals’ friendship ideals align moderately with their actual friendships. Specifically, participants who endorsed higher ideals for a given dimension were significantly more likely to rate their actual friends higher on that dimension compared to participants with lower standards. For the ‘Mating’ dimension, the correlation was strong, indicating good alignment between participants’ desires and their actual outcomes. Furthermore, these correlations were generally consistent across different cultural settings, though some variation existed.

Table 2 shows that the paired samples *t*-tests were significant in all cases, revealing a discrepancy between ideal and actual friendships. To determine the direction of this discrepancy, we calculated the mean difference (actual minus ideal) for each dimension. In all instances, the difference was negative, indicating a deficit between what participants desired and what they actually received. The mean difference was approximately 0.25 units (or about 5% of the 1–5 scale), while the Cohen’s *d* was small. This suggests the deficit was minor; people’s actual friends do not deviate considerably from their ideals. Although variation existed,

TABLE 3 | Significant effects of ideal friendships and Dark Triad traits on actual friendship.

Independent factors	Compatibility and other desirable traits														
	Support			Socialising			Self-serving goal			Mating					
	<i>b</i>	<i>p</i>	η_p^2	<i>b</i>	<i>p</i>	η_p^2	<i>b</i>	<i>p</i>	η_p^2	<i>b</i>	<i>p</i>	η_p^2	<i>b</i>	<i>p</i>	η_p^2
Ideal	0.507	<0.001	0.198	0.514	<0.001	0.200	0.546	<0.001	0.237	0.468	<0.001	0.201	0.559	<0.001	0.326
Machiavellianism	0.013	0.438	0.000	-0.025	0.186	0.000	0.030	0.097	0.000	0.058	0.004	0.001	-0.004	0.812	0.000
Narcissism	0.155	<0.001	0.014	0.185	<0.001	0.016	0.172	<0.001	0.015	0.240	<0.001	0.025	0.158	<0.001	0.012
Psychopathy	-0.125	<0.001	0.009	-0.099	<0.001	0.004	-0.106	<0.001	0.005	0.095	0.719	0.000	0.237	<0.001	0.026
Age	-0.001	0.237	0.000	-0.001	0.455	0.000	-0.004	<0.001	0.003	-0.004	<0.001	0.002	-0.001	0.299	0.000
Sex	—	0.377	0.068	—	0.219	0.128	—	0.866	0.003	—	0.292	0.026	—	0.406	0.057
Sample	—	0.003	—	—	0.015	—	—	0.010	—	—	<0.001	—	—	<0.001	—

Note: Partial eta squared is omitted for 'Sample' as standard effect size estimates are not appropriate for random factors in this general linear model.

this conclusion held consistent across the different countries in the sample.

As shown in Table 3, the desired friend type was a significant predictor with a large effect size for all five types, indicating that preferences strongly predicted outcomes. Regarding 'Compatibility and other desirable traits', the unstandardised coefficient ($b = 0.51$) indicated that for every one-unit increase in preferred compatibility, participants reported an increase of approximately half a unit in their actual friends' compatibility. While a coefficient of 1.0 would indicate a perfect match, the observed coefficient suggests participants obtained a considerable portion of what they desired. This is supported by the large effect size, which indicates that nearly 20% of the variance in participants' actual friendships could be explained solely by their initial preferences, independent of personality traits or demographics. The coefficient remained relatively stable—approximately 0.5—across the different dimensions of friendship. Supporting Information B confirms that this conclusion was generally consistent across different sample groups.

3.2 | Dark Triad Effects

Turning to the Dark Triad, Table 3 indicates that for Machiavellianism, there was a significant effect only for the 'Self-serving goal' dimension, and this effect was small in magnitude. Specifically, the coefficient indicated that for every one-unit increase in Machiavellianism scores, there was a 0.058-unit increase in the actual friend's rating. This suggests that, relative to their preferences, individuals higher in Machiavellianism were slightly more successful in securing friends who satisfied instrumental or self-serving needs. Because the 'ideal friend' rating was included as a predictor, the coefficient for Machiavellianism represents the effect on the outcome after controlling for preferences. Essentially, this compares two participants who have identical preferences but differ in their personality scores. For instance, if a low scorer and a high scorer both desire a level '4' friend, the low scorer might obtain a level '3' friend (a gap of -1.0), whereas the high scorer might obtain a level '3.5' friend (a gap of -0.5). Since actual scores are generally lower than ideal scores, the positive coefficient implies that the high scorer's outcome is 'lifted' closer to the ideal.

Regarding Narcissism, we found a significant, though small, main effect across all five dimensions. The coefficients were

positive in all instances, indicating that higher scores in this trait were associated with a reduced deficit between actual and ideal friendships. For Psychopathy, there were significant small main effects on all dimensions except 'Self-serving goal'. For 'Compatibility and other desirable traits', 'Support' and 'Socialising', the coefficients were negative, indicating that higher scores in Psychopathy were associated with an increased deficit between actual and ideal friendships. Conversely, for the 'Mating' dimension, the coefficient was positive, indicating that individuals higher in Psychopathy secured friendships that aligned more closely with their ideals than did lower scorers. Finally, Tables S1–S12 in Supporting Information B reveal considerable variation; in several instances, effects that were significant in the pooled sample were not significant within individual samples.

4 | Discussion

Using a relatively large cross-cultural sample, we investigated whether the friends people envision match the friends they perceive they actually have. Across five dimensions of friendship, we found that ideal preferences and actual friendship ratings were significantly and positively correlated. The two sets of ratings overlapped considerably, and ideal preferences were a significant and strong predictor of actual friendships. However, ideal and actual friendships did not overlap completely; there was a small deficit, indicating that participants obtained less than they desired. These results were consistent across the 12 countries in our sample. Additionally, we found significant effects of Dark Triad personality traits on several dimensions of friendship.

Our findings indicate that individuals are generally successful in securing the friends they desire, suggesting that the adaptations involved in finding and establishing friendships are generally effective. Nevertheless, a consistent small deficit remained, with participants receiving significantly less than what they wanted. With the exception of Peru, where participants indicated that they obtained more than they wanted for the 'Self-serving goal' dimension, this deficit was found consistently across all dimensions of friendship in all samples. We estimated the slope of the ideal friendship across the five dimensions to be approximately 0.5 units. This can be interpreted to mean that although preferences are the primary engine of friendship selection, this engine operates with a consistent 'efficiency rating' of about 50%. There are several distinct, though not mutually exclusive, explanations for this deficit.

First, we argued that the mismatch problem, along with deception, could result in people failing to secure the friends they want. Regarding the former, the adaptations involved in friendship formation may have evolved in a different environment than the one in which they currently operate, resulting in a degree of inefficiency. Regarding the latter, the 'friendship market' is characterised by deception, with many prospective friends misrepresenting their traits and intentions. To the degree that such deception is successful, people may find themselves with friends who do not match their preferences. Another possible reason is that some friendships constitute compromises between desires and availability. For instance, individuals with traits such as aggressiveness may find it difficult to make friends. To satisfy their need for friendship and avoid loneliness, they may settle for friends who do not fully meet their preferences; a friend who provides non-ideal company may be preferable to having no company at all.

A further possibility is that selection forces have biased friendship mechanisms to keep standards artificially high as a protective buffer. If individuals set their standards based strictly on their own value as friends, they risk accepting friends who fall below that standard due to natural variation or errors in judgement. By setting the standard higher than one's own value justifies, people create a 'buffer zone'. Even if they compromise and accept someone slightly below their ideal, the resulting friend is likely to remain above the threshold of unacceptability. Accordingly, the observed deficit represents a 'safety margin'. This implies that people use a maximalist strategy: They seek the best possible outcome to ensure they land on a 'good enough' outcome, rather than aiming for 'good enough' and risking a poor outcome (see Haselton and Nettle 2006). Future studies should investigate the specific reasons why many people do not secure the friends they desire.

We also investigated whether individuals with higher scores in Dark Triad traits were more or less effective than those with lower scores in forming friendships that matched their preferences. Our findings indicate that high scorers in Machiavellianism tended to fare better than low scorers on the 'Self-serving goal' dimension, though the effect was small. This is consistent with the manipulative nature of this personality dimension, as high scorers may be more effective in securing friends who serve their purposes. Similarly, high scorers in Narcissism reported a smaller deficit between actual and ideal friendships than low scorers across all five dimensions. The superficial charm and social boldness associated with narcissism likely provide high scorers an advantage in attracting the friends they want. Alternatively, these findings may not reflect actual differences but rather differences in the perception of friendship qualities; high scorers in Narcissism may be more likely to believe they obtain what they want, even if this is not objectively true. Regarding Psychopathy, high scorers showed a significantly higher deficit in 'Compatibility and other desirable traits', 'Support' and 'Socialising', indicating that this trait hindered the acquisition of desirable friends on these dimensions. Conversely, higher scores were associated with a lower deficit on the 'Mating' dimension, suggesting a possible advantage of this trait in that specific context.

These results were generally consistent across the different cultures in our sample, although in many instances the effects were

not significant. One reason for this is that the individual samples were much smaller than the pooled sample; thus, the lack of significant effects may reflect a lack of statistical power. It may also reflect cultural factors moderating the effects of the Dark Triad on the ability to attract desirable friendships (see also Aluja et al. 2022; Rogoza et al. 2021). Future research should examine the causes of the observed cross-cultural variation. The deceptive and manipulative nature of the Dark Triad may also play a role in interpreting our findings. Previous research has found that high scorers are more interested in having friends for self-serving goals and mating (Apostolou et al. 2024) and may employ deception to form such friendships. Consequently, the presence of Dark Triad traits in the population could result in individuals having friends who are not truly who the participants perceive them to be. This suggests that the measured deficit between what people get and what they want is likely an underestimate of the true deficit.

One limitation of the current research is its reliance on self-report instruments, which are subject to biases such as participants providing inaccurate answers. For instance, people may underreport their preference for friends who facilitate self-serving goals. A general response bias is a further issue; it is possible that some participants indicated no difference between their desired and obtained characteristics because they tended to answer items identically, irrespective of the stem provided. Moreover, we employed non-probability samples, so our findings may not readily generalise to the general population. Additionally, apart from the Dark Triad, there are likely other factors predicting success in securing desired friends that the current study did not examine. For example, traits such as positivity and optimism, which are considered desirable in a friend (Apostolou and Vetsa 2022), can provide individuals with more options and thus better chances of securing the friends they want.

To the best of our knowledge, this is the first study to examine whether people obtain the friends they desire. Our findings indicate that while people generally have friends who match their ideals, a significant deficit between actual and ideal friendships exists. Future studies are needed to identify the reasons behind this observed discrepancy.

Author Contributions

Menelaos Apostolou: conceptualization, methodology, investigation, formal analysis, writing – original draft, writing – review and editing. **Mark Sullman:** investigation, writing – review and editing. **Jessica D. Ayers:** conceptualization, methodology, writing – review and editing, data curation. **Agata Błachnio:** investigation, writing – review and editing. **Rajneesh Choubisa:** investigation, methodology, writing – review and editing, data curation. **Hesham F. Gadelrab:** investigation, writing – review and editing. **Tetiana Hill:** investigation, writing – review and editing. **Shanmukh Kamble:** investigation, writing – review and editing. **Yanina Lisun:** investigation, writing – review and editing. **Denisse Manrique-Millones:** writing – review and editing, investigation, data curation, methodology. **Rosa Millones-Rivalles:** investigation, writing – review and editing. **Yohsuke Ohtsubo:** investigation, methodology, writing – review and editing, data curation. **Aneta Przepiórka:** investigation, writing – review and editing. **Burcu Tekeş:** investigation, writing – review and editing. **Germano Vera Cruz:** investigation, writing – review and editing, methodology, data curation. **Yan Wang:** investigation, writing – review and editing. **Yukino Watanabe:** investigation, writing – review and editing. **Arya Ghorbani:**

investigation, writing – review and editing. **Ghada Shahrour:** investigation, methodology, writing – review and editing, data curation.

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Ethics Statement

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee at the University of Nicosia and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Consent

Informed consent was obtained from all individual adult participants included in the study.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are openly available in Open Science Framework at https://osf.io/eskcm/?view_only=d867ec56192e44579636e78c35ddc028.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Supplementary Material A:** Supporting Information. **Supplementary Material B:** Supporting Information. **Supplementary Material C:** Supporting Information. **Supplementary Material D:** Supporting Information.