Dependents as signals of mate value in an online dating context

by

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Abstract

Sexual strategies theory indicates that humans can adopt short- and long-term mating strategies, producing sex- and strategy-specific mating behaviours due to asymmetries in obligate parental investment into children. Consequently, demonstrating an ability and willingness to invest in a mate and offspring is highly desired under long-term mating contexts – especially by women. Investment may be financial and/or based on social status, as well as the ability to care for a mate and any resulting offspring. While male carers of dependents (i.e., pets and children) have typically been perceived as high-quality mates by women, no studies have examined how dependents are associated with short- and long-term mating strategies. I selected profiles from the online dating platform Plenty of Fish to test the predictions that men seeking a long-term mate will be more likely to display a dependent on their profile, and those who display a dependent will do so more frequently than men seeking short-term mates and women seeking long-term ones. The results show that men seeking long-term mates were more likely to show a dependent and did so more frequently when compared to men seeking short-term mates; however, men and women seeking a long-term mate displayed dependents in a similar fashion. These patterns were driven mainly by the displays of high-investment dependents (children and canines). These findings indicate that men adopting long-term mating strategies are more likely to advertise their investment capabilities compared to those seeking a short-term mate in a modern dating context, which may be used to signal their mate value.

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1. Introduction

1.1 Sexual Strategies and Parental Investment

Evolutionary theories about mating behaviour continually highlight the sex-specific nature of preferences, interests, strategies, and choices. Such dissimilarities were elucidated through the influential and classic study by Clark and Hatfield (1989): 72% of college men stated they would have sex with a woman they had just met, but no women surveyed indicated the same about an unfamiliar man. These findings solidified the contention previously theorized by behavioural ecologists: that there are sex-specific differences in the approach to reproduction (Trivers, 1972). In a fundamental context, these differences largely stem from different challenges and opportunities each sex faces in relation to their obligatory parental investment (Trivers, 1972).

Due to metabolically expensive egg production, a relatively small number of viable ova, as well as the reproductive "time-out" associated with gestation and lactation, women have a more limited reproductive potential, and face a higher obligatory investment in offspring than men (Trivers, 1972; Clutton-Brock & Scott, 1991; Buss & Schmitt, 1993). Women may suffer a cost of choosing a low-quality mate who does not provide adequate resources for children, thereby reducing the probability of children reaching reproductive maturity and consequently decreasing female fitness. By contrast, men can re-enter the mating pool immediately after copulation, maximizing fitness by mating frequently to produce many offspring with little investment beyond the contribution of gametes (Trivers, 1972; Clutton-Brock & Scott, 1991; Buss & Schmitt, 1993). Due to these fundamental differences in investment in offspring, it is beneficial for women to be selective in choosing

a reproductive partner, which results in competition among men for access to relatively highly investing mates (Buss & Schmitt, 1993).

Male investment in reproduction can involve the provision of emotional and physical care for offspring, as well as resources such as financial stability and social status to both the mate and young (Trivers 1972; Buss & Schmitt, 1993, 2016). From an evolutionary perspective, paternal provisioning may increase the likelihood of offspring survival and subsequent reproduction (Trivers, 1972; Shackelford & Goetz, 2009), and can help reduce a woman's inter-birth interval (Gemmill & Lindberg, 2013; Szabó et al., 2017), ultimately allowing her to produce more children and increase the reproductive success of both parents in a monogamous system (Buss 1989; Clutton-Brock & Scott, 1991; Buss & Schmitt, 2016; Yong & Li, 2016). Thus, men's mating strategies are characterized by the degree to which men provide this investment to a mate and offspring. Here, a mating strategy is considered to be a set of context-relevant mating preferences and behaviours for the selection, attainment, and retention of a mate which maximize the holder's reproductive success, ensuring that their traits enter the next generation (Buss & Schmitt, 1993, 2016).

Sexual strategies theory (SST) indicates that men and women may use short- or long-term mating strategies, and that these strategies are influenced by differences in parental investment (Buss & Schmitt, 1993, 2016). Short-term mating strategies are typified by brief affairs with multiple mates resulting in minimal investment in mates and, for men at least, offspring, whereas long-term mating strategies are characterized by commitment and biparental investment (Buss & Schmitt, 1993, 2016). According to Buss and Schmitt (1993), men tend towards short-term mating while women tend to prefer long-term mates. Evidence for this pattern and it's predicted sex- and mating strategy-specific

mate preferences have been demonstrated in traditional hunter-gatherer societies (e.g., Buss, 1989; Hewlett & Mcfarlan, 2010), as well as Eastern and Western nations of varying socioeconomic backgrounds (e.g., Buss, 1989; Buss & Schmitt, 1993; Stewart et al., 2000; Schmitt, 2005, 2014). For example, women desire the ability of a mate to provide investment more than men across 33 countries and 37 cultures, and this investment becomes more relevant when seeking long-term mates (Conroy-Beam et al., 2015). In a modern context, support for the conjecture that women prefer men who can provide investment (e.g., resources and care) has also been demonstrated in laboratory experiments (Brase, 2006; Dunn & Searle, 2010; Dunn & Hill, 2014; Thomas & Stewart-Williams, 2018) and observational studies involving speed-dating (Asendorpf et al., 2011), "traditional" dating (Gray et al., 2015), and personal advertisements (Gonzales & Meyers, 1993; Butler-Smith et al., 1998; Bereczkei et al., 2010; Russock, 2011; Strassberg & English, 2014; Abramova et al., 2016; Arua, 2017), including online dating platforms (Fiore et al., 2008; Toma et al., 2008; Ingram, 2019). For example, in the studies of online dating, while both sexes are more likely to contact a potential mate with relatively high income, this effect was especially pronounced for women. Women were 8.9% more likely to contact a man with a listed income between $150,000 and $200,000 than a man earning between $35,000 and $50,000. Conversely, the difference in men contacting women based on the same income categories was 3.9%. Hitsch et al., (2010) also report that women's preference for relatively high income was relatively stronger than for physical attributes, such as facial attractiveness, height, or body mass index.

Additionally, recent work indicates that sex-specific mating strategies are more flexible than a simple dichotomy associated with investment in offspring. In contrast to

Clark and Hatfield (1989), Voracek et al. (2005) found that women would go home with a male stranger who expressed sexual interest. This short-term mating is commonly deployed to gain resources (e.g., jewellery, money, and associations with high-status individuals; Greiling & Buss, 2000). Though typically reserved for men (Schmitt, 2005), this strategy may also play a role in mate poaching (Belu & O'Sullivan, 2019), assessing another's mate value (Buss & Schmitt, 1993), and to transition between a short- and long-term relationship (Greiling & Buss, 2000). Conversely, men can become more sexually restricted to attract a high-quality mate, and both sexes can engage in extra-pair copulations, serial monogamy or adopt aspects of both a long- and short-term strategy to further their reproductive success (Buss & Schmitt, 2016). Hence, human mating preferences are dynamic, given that spatial and temporal differences in social parameters such as sex ratio (Schacht & Borgerhoff-Mulder, 2015), population density (Kokko & Rankin, 2006), and age structure (Conroy-Beam & Buss, 2019) can alter the optimal strategy for each sex. Thus, within a population, men and women may adopt long- or short-term mating strategies depending upon environmental and physiological conditions (Brase, 2006; Hewlett & MacFarlan, 2010; Buss & Schmitt, 2016; Thomas & Stewart-Williams, 2018). However, in light of such flexibility, one general idea emerges: women typically seek men who invest care and resources into herself and offspring (Buss, 1989; Buss, 1991; Buss & Schmitt, 1993; Gangestad & Simpson, 2000; Buss & Shackelford, 2008; Anderson & Klofstad, 2012; Baumeister et al., 2017).

1.2 Female Expectations of Investment

The level and type of investment women expect from a mate varies whether a short- or long-term mate is sought. When adopting a short-term mating strategy, women evaluate

male traits that will offset the costs of raising offspring alone. In this context, women seek direct benefits from short-term mates such as financial and social status (Greer & Buss, 1994; Greiling & Buss, 2000; Buss & Schmitt, 2016). For example, Buss and Schmitt (1993) showed that women assessed frugal men as unattractive and preferred potential mates who were willing to give gifts early in their encounters.

When adopting a long-term mating strategy, women have a higher expectation of investment from men relative to short-term contexts (Buss, 1989). These long-term oriented women prefer traits of a good companion, and potentially good parenting in a mate, including love, kindness, agreeableness, and skills necessary for raising a child (Buss & Schmitt, 1993; Woodward & Richards, 2004; Li & Kenrick, 2006; Jackson & Kirkpatrick, 2007). For instance, women consistently select considerate altruists (i.e., those who unconditionally care for others) as their ideal choice when faced with multiple potential long-term mates (Norman & Fleming, 2019). Women also seek men who signal their ability to accrue and provide resources, as the former face higher reproductive constraints and provide more direct care, and therefore may not be able to sufficiently gather resources to support themselves and children (Buss 1989; Conroy-Beam et al., 2015; Buss & Schmitt, 2016). Consequently, women's acceptance of a date increases when a man has indicators of high financial and social status (Guéguen & Lamy, 2012), both of which women report as being more of a "necessity" in a long-term mate than men (Li, 2007).

1.3 Dependents as Displays of Male Investment Potential

In addition to physical attributes (Ingram, 2019), humans display their mate value using external cues (Dawson & McIntosh, 2006). Such cues can be inanimate to signal

financial stability and status (e.g., luxury items such as expensive cars and condominiums: Dunn & Searle, 2010; Dunn & Hill, 2014), as well as animate, which may also provide a proxy for caring ability (e.g., a child: Belk, 1988; or pet: Sanders 1990). Research has supported the notion that dependents (i.e., live beings who depend on someone for care: Serpell & Paul, 2011), such as pets and children may signal their carer's investment potential (i.e., the ability and willingness to provide investment to a mate and offspring), specifically for men: thus, men with children (Roney et al., 2006) and pets (Tifferet et al., 2013; Gray et al., 2015) are seen as being more attractive mates than those without. For example, children (Kemkes, 2008, Thomas & Stewart-Williams, 2018) and canine pets (Beverland et al., 2008; Mosteller, 2008; Serpell & Paul, 2011; Tifferet et al., 2013) can signal high financial and social status, as well as caring abilities in men who have them. Such findings are logical as children and pets require material investment (and are even adorned with gifts, e.g., luxury accessories: Prendergast & Wong, 2003; Corso, 2007; Mosteller, 2008) and are highly social beings (Zasloff, 1996; Maleki et al., 2019). Other pets (such as felines) may play a lesser role in signalling a man's caregiving potential as they require less care and social interaction (Zasloff, 1996; Gray et al., 2015; Kogan & Volsche, 2020). However, they would likely still signal some investment potential as their owners do provide them with necessities and gifts (Corso, 2007; Mosteller, 2008) and would require more care and social interaction than nothing at all. Overall, women are more receptive to these signals of investment potential than men (Buss, 1989; Buss & Schmitt, 1993, Brase, 2006; Gray et al., 2015; Thomas & Stewart-Williams, 2018) and dependents have been shown to facilitate social interactions (Hunt et al., 1992; McNicholas & Collis, 2000; Wells, 2004; Wood et al., 2005; Guéguen & Ciccotti, 2008; Wood et al.,

2011; Guéguen, 2014). Unsurprisingly, men have reported they show off dependents (e.g., pets) in mating contexts to attract a mate (Gray et al., 2015; Ingram, 2019). Consequently, one could expect men to adjust the degree to which they exhibit dependents to reflect their mating strategy.

1.4 Mating Strategies and Online Dating

The Internet has become central to society as a medium in which to share information and increase social connectedness (Postmes et al., 2002; Wilcox & Stephen, 2013). As online dating has become more prevalent in the past two decades, so has the research regarding how it affects human mating behaviour (Finkel et al., 2012). Previous work has largely examined the mate preferences of individuals, but also how individuals signal that they are a high-quality mate on these platforms. Much of the latter has examined how individuals display their own physical traits (e.g., Gonzales & Meyers, 1993; Toma et al., 2008; Whitty, 2008; Gallant et al., 2011; Ingram, 2019), while few have examined external displays (Dawson & McIntosh, 2006), which can include both live entities such as pets (e.g., Gray et al., 2015, Ingram, 2019) and children (e.g., Peters, et al., 2013; Kisilevich & Last, 2010; Lin & Lundquist, 2013), as well as inanimate objects such as cars (e.g., Kisilevich & Last, 2010) and luxury items/experiences (e.g., Belk, 1988; Griskevicius et al., 2007; Bourgeois et al., 2019). Such findings have typically supported the expectations of SST; with regards to personal advertisements, men display traits relevant to their ability to accrue and provide resources and care, while women display physical attractiveness (Butler-Smith et al., 1998; Jagger 1998; Groom & Pennebaker, 2005; Dawson & McIntosh, 2006; Gallant et al., 2015; Gray et al., 2015; Kogan & Volsche, 2020; also see Abramova et al., 2016 for review). Therefore, online dating profiles can lend insight about whether

individuals display traits relevant to SST through the display of dependents according to their sex and mating strategy – especially since previous work has largely ignored the predictors of how pets and children are displayed under naturalistic mating contexts (e.g., Ingram, 2019) and online dating has become increasingly popular to find mates (Anderson et al., 2020).

1.5 Research Objective

The aim of this research is to address the paucity of studies that examine how dependents are used as advertisements of mate quality. To review, these cues in and of themselves signal parental abilities, but also correlate with other traits of high-value mates (e.g., high status: Mosteller, 2008); thus, it is expected that sex- and sexual strategy-specific differences in the level to which they are presented on dating profiles to attract potential mates exist. Past findings have indicated that men adopting long-term mating strategies are expected to show they can provide a mate and offspring with the most investment to be selected as a mate, particularly the types of investment that dependents signal their carer possesses (e.g., Buss & Schmitt, 1993). Thus, these men should display their dependents as signals of resource and parental investment more than men adopting short-term strategies as long-term relationships require more investment relative to short-term settings (Schmitt, 2014). This leads to the following between-mating strategy predictions:

A. Men adopting a long-term mating strategy will be more likely to display a dependent on their dating profiles than men adopting a short-term mating strategy.

B. Regarding those who display a dependent, men adopting a long-term mating strategy will display them with higher frequency on their dating profiles than men adopting a short-term mating strategy.

Furthermore, men adopting long-term strategies should display dependents more than women using the same strategy. Women are typically more discerning than men in mate selection because they fundamentally invest more in offspring, and thus tend toward long-term mating and seek highly investing men (e.g., Buss & Shackelford, 2008). Caring for dependents can signal mate-relevant qualities sought by potential mates (i.e., providing resources and care: Jackson & Kirkpatrick, 2007; Arua, 2017; Arnocky, 2018). However, men consistently portray their ability and willingness to provide investment more than women (Buss & Schmitt, 1993; Li, 2007; Abramova et al., 2016) as this investment is more relevant to women than it is to men (Buss & Schmitt, 1993). Therefore, women may display dependents to signal their investment potential, but men are expected to do it more. Given this, the following between-sex predictions can be made:

A. Men adopting a long-term mating strategy will be more likely to display a dependent on their dating profiles than women adopting a long-term mating strategy.

B. Regarding those who display a dependent, men adopting a long-term mating strategy will display them with higher frequency on their dating profiles than women adopting a long-term mating strategy.

2. Methods

2.1 Data Collection

First, two free accounts (one man and one woman) on www.plentyoffish.com (POF) were created. POF was selected for two reasons: first, it is popular in Canada, with approximately 3 million daily users (Plenty of Fish Canada, 2021); and second, while searching for an appropriate platform, POF profiles appeared to contain more information about a user than other websites (users are encouraged – but not forced – to discuss a multitude of facets regarding their family, occupational, and personal lives during profile construction).

To start data collection, a POF account was used to access individuals' profiles of the opposite sex – hereafter referred to as "daters". Daters were sorted by most recent log-in, with their age left unrestricted. Next, daters were catalogued according to the type of connection they were looking for, which are categorized by the site as "seeking a relationship/long-term" or "seeking casual dating/no commitment"; these designations were used as proxies for mating strategies, with the former defined as a long-term mating strategy, and the latter a short-term mating strategy. Parallels have been found between a person's online dating intent and cues of mate value expected by SST (Abramova et al., 2016; van der Zanden et al., 2019). Thus, our comparison has merit as those seeking casual encounters typically display physical attractiveness (Regan et al., 2000; Li & Kenrick, 2006), while indicators of personality and resource acquisition become more common as the level of involvement in an expected relationship increases (Buunk et al., 2002; Eastwick & Finkel, 2007, Bereczkei et al., 2010). Daters were then filtered by geographic location so that all were situated in Nova Scotia, Canada. Before data collection began, it was noted

that incomplete profiles were able to be viewed by potential mates; therefore, only complete profiles were sought to get an accurate picture of how daters were presenting their mate value. Information from every second profile was recorded as long as it contained pictures of the individual and a description – those with generic photos (e.g., quotes, stock photos of animals, nature scenes without a person), as well as spam accounts (e.g., profiles advertising websites) were also ignored. Profiles in which the mating strategy was unclear (e.g., profiles "seeking a relationship" but also indicated elsewhere they wanted to find "friends" or "something casual") were not included in the data set as well.

Once an individual's profile was selected, their mating strategy and sex were recorded. The selected dater's displays of dependents were quantified by identifying photographs and/or written statements indicating whether individuals had children and/or pets (i.e., dogs, cats, and others such as birds and rodents). Lastly, demographic information regarding whether they wanted children, as well as their age and education level were recorded. The descriptors of these daters are shown in Table 1.

The sample, comprised of 225 men and 225 women who were seeking a relationship and 225 men who were not seeking a relationship, was collected between July and August 2020 (N = 721). For the sake of completeness, women who were not seeking a relationship were also sampled. Only 46 women seeking casual dating/no commitment were found in Nova Scotia (2019 provincial population 969,747; Government of Nova Scotia, 2020). Though no *a priori* predictions were made regarding these women, they are included in the analyses found in section 7 (Appendix, p. 71).

Table 1. Demographic information of sampled daters.

sex/mating strategy	age		want children	achieved education level		
	M	*SD*	*%*	< post-secondary	undergraduate	> post-secondary
men						
short-term	32.41	9.01	8.89	180	23	22
long-term	30.52	8.29	32.40	191	25	9
women						
short-term	36.46	15.19	26.67	37	5	4
long-term	42.68	13.36	16.00	154	49	22

2.1.1 Supplementary Data

After collecting the first sample, it was noted that the ongoing Coronavirus disease 19 (COVID-19) pandemic may influence any findings as Reeve et al., (2016) showed varying levels of environmental threat can influence a person's mating behaviour. Thus, two additional, smaller samples were collected for exploratory analyses. The purpose of this was two-fold: first, to examine whether this potential influence was present within the same geographical area (hereafter "NS2"); and second, to determine whether patterns were similar between geographic areas (sample collected from profiles in Ottawa, Ontario – hereafter "OT"). Such comparisons could be made as the first focal sample was recorded after the "first wave" (i.e., restrictions on social gatherings and movements were lifted), whereas the second and third additional samples (i.e., NS2 and OT) were recorded during the "second wave" (i.e., the resurgence of infections and reinstatement of restrictions). For an in-depth look at timelines and level of restrictions, see Government of Nova Scotia (2021) and Ottawa Public Health (2021). For analyses, see section 5 (Supplementary Results, p. 35).

The second and third samples, each composed of 40 men and 40 women who were seeking a relationship and 40 men who were not, were collected between November and December 2020 (N = 128, N = 127). Moreover, only eight and seven women who were not seeking a relationship were collected from Nova Scotia (again) and Ottawa, respectively. Again, it should be noted that while a larger sample of women who were not seeking a relationship was desired for completeness, it was not possible to collect these data for the entire province of Nova Scotia (only daters that were not included in the first sample were selected) and city of Ottawa (2019 population 1,030,000; Government of Ontario, 2020); their inclusion in analyses can also be found in the Appendix. The descriptors of these two samples are outlined in Table 2.

Table 2. Demographic information of sampled daters in the second Nova Scotian (NS2) and Ottawa samples (OT).

sex/mating strategy	age		want children	achieved education level		
	M	*SD*	*%*	< post-secondary	undergraduate	> post-secondary
NS2						
men						
short-term	28.28	4.04	17.50	34	4	2
long-term	28.93	3.88	32.50	26	10	4
women						
short-term	36.46	15.19	26.67	37	5	4
long-term	42.68	13.36	16.00	154	49	22
OT						
men						
short-term	27.75	3.41	12.50	4	5	40
long-term	29.28	4.49	27.50	10	3	40
women						
short-term	27.43	3.26	2.50	0	0	7
long-term	29.90	2.91	52.50	14	6	40

2.2 Statistical Analyses

Dependents were first categorized as a binary, categorical variable based on whether or not daters indicated that they had children and/or pets. Then, using daters who indicated they had a dependent as a subset of data, the frequency with which they were displayed was recorded by tallying the number of times they were present (e.g., two points were assigned if the individual showed two photos of dogs in their profile, one point if there was mention of a dog but no photos).

For each sample, generalized linear models were used to assess the effect of sex and mating strategy on the presence and frequency of dependency displays. Binary variables were modeled using a binomial distribution, while counts of dependents followed a Poisson distribution. The Akaike information criterion (AIC; package "MuMIn") was used to assess which model best fit the data (e.g., see Ziker & Snopkowski, 2020). After dredging, all possible predictors of dependents for each model were ranked; these included the influence of dater's mating strategy for the between-mating strategy comparison, and the dater's sex for the between-sex comparison. Conventionally, models whose AIC_C value is the lowest and has a difference of two of greater compared to the next lowest model is the best fit to the data and holds significant predictive value (Akaike, 1974). Statistical tests and graphs (package "ggplot2") were executed using RStudio, version 1.3.959 (R Core Team, 2020).

3. Results

3.1 Displays of Dependents

The primary objective of this study was to examine whether men adopting a long-term mating strategy showed off dependents on their POF profiles more than both men adopting a short-term mating strategy (the between-mating strategy comparison) and women also adopting a long-term mating strategy (the between-sex comparison). Table 3 indicates which variables significantly predicted these displays.

Table 3. Model comparison of the predictive strength of sex and mating strategy on whether or not daters displayed dependents, and the number of such displays on their dating profile regarding daters who displayed a dependent. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. The best model differs from others by ΔAIC_C of 2 or greater and are shown in bold; if less than 2, both models had similar predictive power and left un-bolded for clarity.

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
proportion displaying	mating strategy	**mating strategy**	**509.16**	**0.00**	**1.00**
		(intercept)	558.40	49.24	0.00
	sex	(intercept)	359.14	0.00	0.56
		sex	359.62	0.48	0.44
total displays	mating strategy	**mating strategy**	**954.51**	**0.00**	**1.00**
		(intercept)	966.83	12.32	0.00
	sex	(intercept)	1237.34	0.00	0.56
		sex	1237.78	0.44	0.44

3.1.1 Men: Between-Mating Strategy Comparison

For the between-mating strategy comparison of men adopting long- and short-term strategies, 84.44% of men adopting a long-term mating strategy displayed a dependent on

their profile, compared to 53.78% of men adopting a short-term one. Thus, a dependent was significantly more likely to be displayed on a profile of the former than the latter (Table 3, Figure 1A). Using only the subset of daters who displayed a dependent, the total frequency with which they showed or mentioned their dependents on their profile was examined. A pattern similar to the previous analysis emerged: men adopting a long-term strategy displayed dependents at a significantly higher frequency (mean (*M*) = 2.19, standard deviation (*SD*) = 1.29) than those who declared a short-term approach in their profiles (*M* = 1.59, *SD* = 0.98; Table 3, Figure 1B).

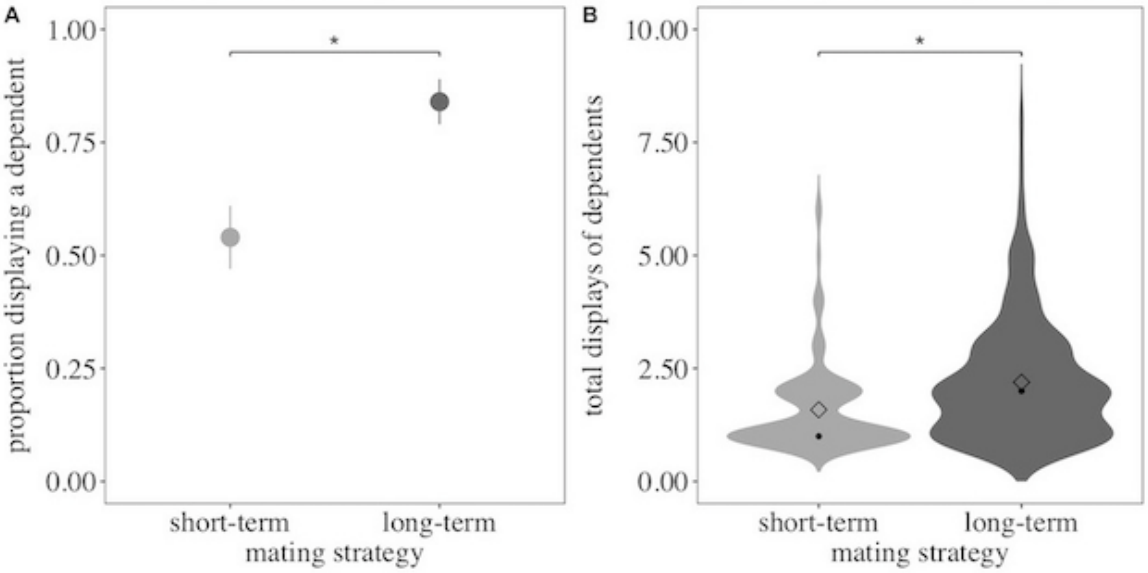

Figure 1. Between-mating strategy comparison: influence of male dater's mating strategy on the displays of dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A) Comparison of proportion of daters displaying any dependent on their profile; vertical lines denote 95% confidence interval; B) Comparison of daters who displayed a dependent regarding the frequency of such displays; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

3.1.2 Long-Term Mating Strategy: Between-Sex Comparison

For the between-sex comparison of men and women adopting a long-term mating strategy, both sexes were equally likely to show off a child or pet on their dating profile (88.44% of women displayed; Table 3, Figure 2A). Similarly, no difference was found regarding the frequency of displays using daters who had a picture or description of a dependent on their profile as a subset of data (women: $M = 2.01$, $SD = 1.17$; Table 3, Figure 2B).

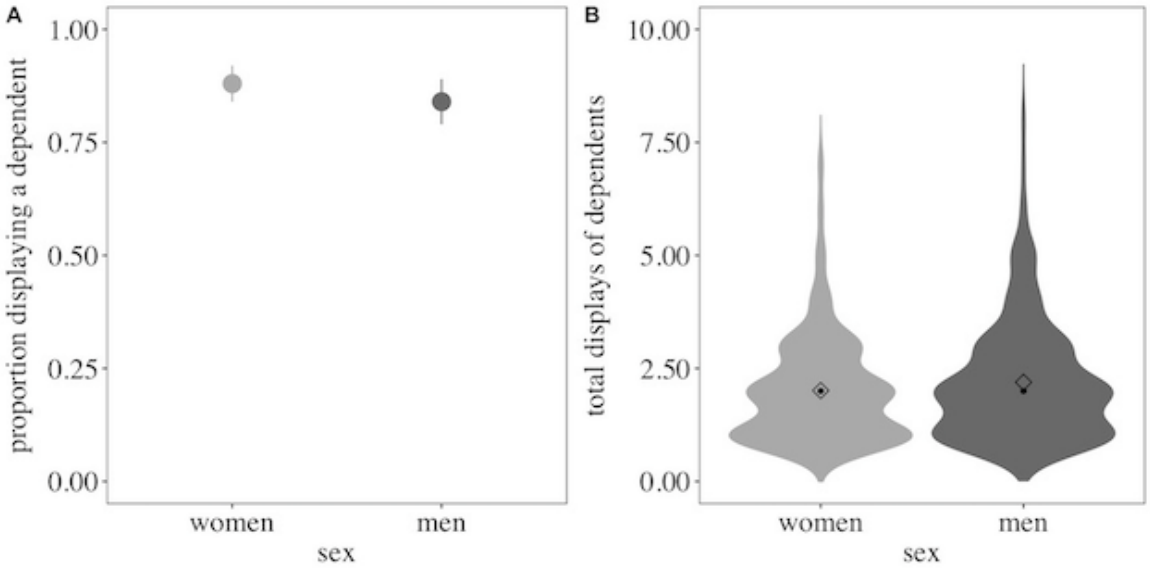

Figure 2. Between-sex comparison: influence of sex regarding daters adopting long-term mating strategies on the displays of dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A) Comparison of proportion of daters displaying any type of dependent on their profile; vertical lines denote 95% confidence interval; B) Comparison of daters who displayed a dependent regarding the frequency of such displays; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

3.2 Types of Dependents

As a secondary objective, the types of dependents displayed were categorized into three groups: children, canines, and non-canines (e.g., felines, rodents, and birds). This

was done to explore whether different dependents may be displayed with different likelihood and frequency depending on mating strategy and sex, given the categories vary with the level of investment and time commitment from most (children) to least (non-canines). Table 4 indicates which variables predicted the following displays of dependents.

Table 4. Model comparison of the predictive strength of sex and mating strategy on whether or not daters displayed different dependents, and the number of such displays on their dating profile regarding daters who displayed a dependent. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. The best model differs from others by ΔAIC_C of 2 or greater and are shown in bold; if less than 2, both models had similar predictive power and left un-bolded for clarity.

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
children					
proportion displaying	mating strategy	**mating strategy**	**558.46**	**0.00**	**1.00**
		(intercept)	573.48	15.02	0.00
	sex	**sex**	**604.51**	**0.00**	**1.00**
		(intercept)	624.10	19.59	0.00
total displays	mating strategy	**mating strategy**	**696.74**	**0.00**	**0.92**
		(intercept)	701.52	4.78	0.08
	sex	(intercept)	925.53	0.00	0.51
		sex	925.63	0.10	0.49
canines					
proportion displaying	mating strategy	**mating strategy**	**537.50**	**0.00**	**1.00**
		(intercept)	555.13	17.63	0.00
	sex	**sex**	**580.92**	**0.00**	**0.83**
		(intercept)	584.09	3.17	0.17
total displays	mating strategy	**mating strategy**	**745.81**	**0.00**	**0.99**
		(intercept)	754.91	9.10	0.01
	sex	**sex**	**898.26**	**0.00**	**1.00**
		(intercept)	915.37	17.11	0.00

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
non-canines					
proportion displaying	mating strategy	mating strategy	540.11	0.00	0.64
		(intercept)	541.24	1.13	0.36
	sex	**sex**	**594.05**	**0.00**	**0.79**
		(intercept)	596.64	2.59	0.21
total displays	mating strategy	(intercept)	597.73	0.00	0.72
		mating strategy	599.61	1.88	0.28
	sex	(intercept)	778.69	0.00	0.69
		sex	780.31	1.62	0.31

Note: Table 4 continued.

3.2.1 Men: Between-Mating Strategy Comparison

When comparing men by their mating strategy, it was found that 42.22% adopting a long-term strategy had a picture and/or a description pertaining to a child on their profile, which was significantly more than 24.00% adopting a short-term strategy who did the same (Table 4, Figure 3A). Regarding this comparison, for daters who showed or mentioned a dependent, men adopting a long-term strategy (M = 0.79, SD = 0.97) displayed children significantly more than men adopting a short-term approach (M = 0.55, SD = 0.71; Table 4, Figure 3D). Additionally, 40.00% of male daters adopting a long-term strategy showing a canine on their profile, compared to only 20.89% of men seeking a short-term mate (Table 4, Figure 3B). These long-term oriented men (M = 0.86, SD = 1.08) who displayed a dependent also displayed canines significantly more than short-term oriented men (M = 0.54, SD = 0.88; Table 4, Figure 3E). When examining how non-canine pets were displayed (i.e., cats, birds, rodents, etc.), no differences were found when comparing men (Table 4, Figure 3C, Figure 3F): 32.44% adopting a long-term and 24.89% adopting a short-

term mating strategy displayed them, and regarding daters that displayed a dependent, displayed non-canines with similar frequency (long-term: $M = 0.54$, $SD = 0.87$; short-term: $M = 0.50$, $SD = 0.58$).

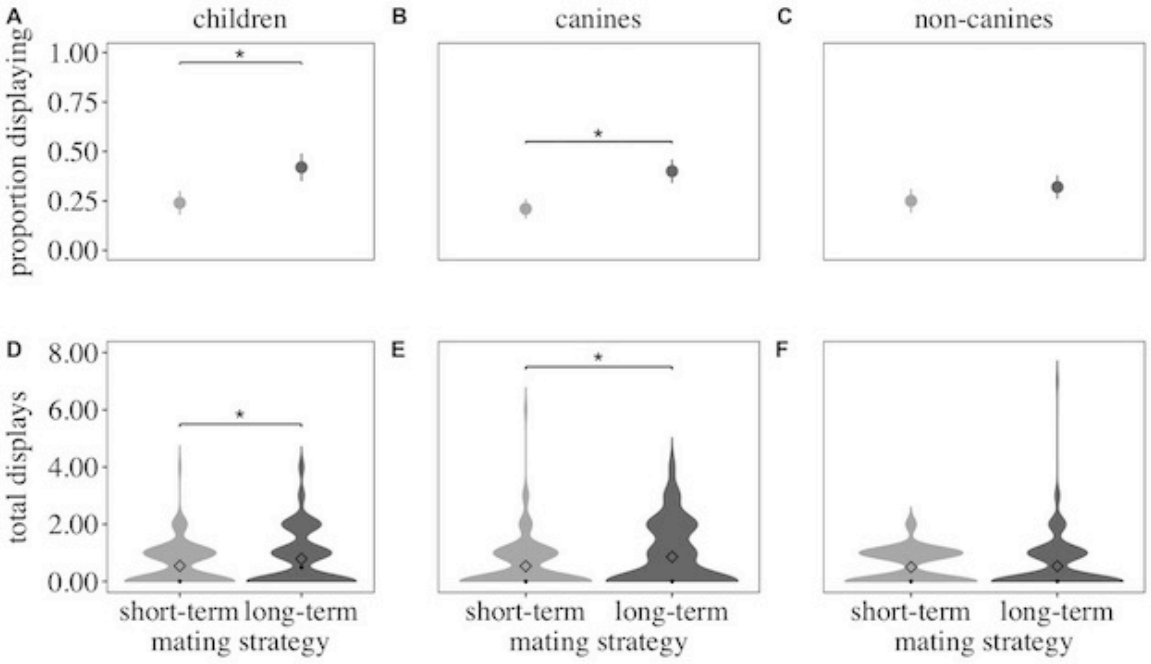

Figure 3. Between-mating strategy comparison: influence of male dater's mating strategy on the displays of different dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

3.2.2 Long-Term Mating Strategy: Between-Sex Comparison

When comparing men and women adopting long-term mating strategies, it was found that these women were significantly more likely to display a child on their profile (64.00%) than men (Table 4, Figure 4A). Regarding this comparison, for daters who displayed a dependent, no difference was found between women ($M = 0.93$, $SD = 0.73$) and

men in terms of the frequency they were displayed (Table 4, Figure 4D). However, men seeking a long-term mate were significantly more likely to display a canine as only 29.77% of women also seeking a long-term mate displayed one (Table 4, Figure 4B). Regarding this comparison, for daters who displayed a dependent, men displayed canines significantly more than women (M = 0.50, SD = 0.87; Table 4, Figure 4E). Finally, 42.22% of women adopting a long-term strategy displayed a non-canine, which was significantly more than men adopting the same strategy (Table 4, Figure 4C). However, no difference was found regarding the frequency these men and women (M = 0.59, SD = 0.71), who displayed a dependent, displayed non-canines (Table 4, Figure 4F).

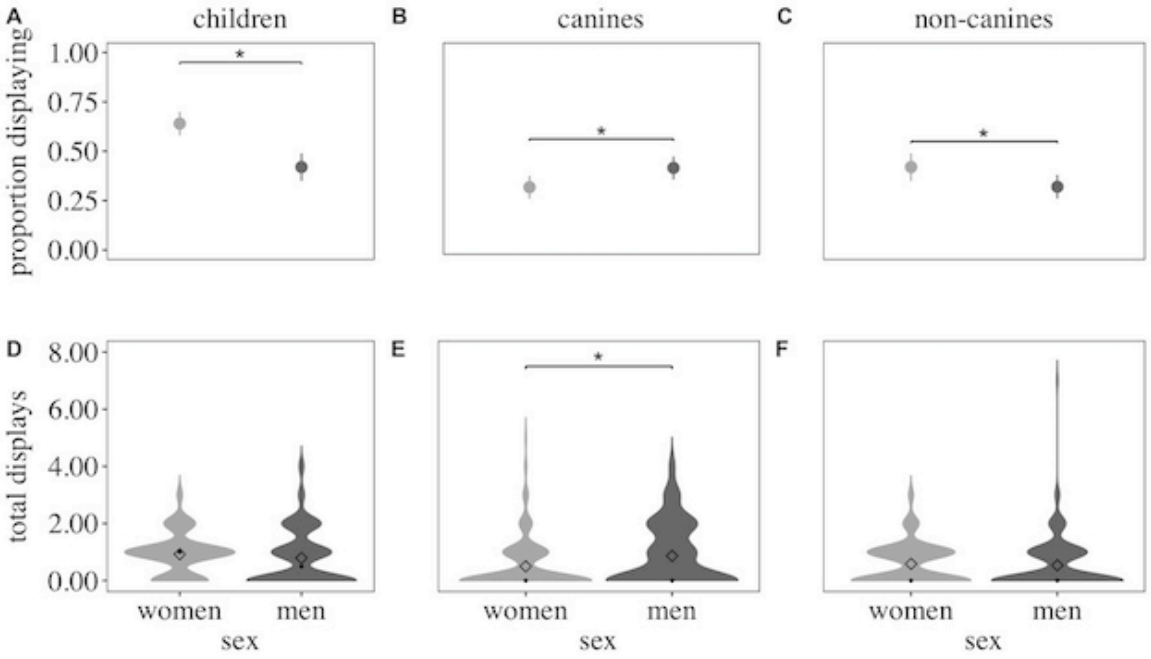

Figure 4. Between-sex comparison: influence of sex regarding daters adopting a long-term mating strategy on the displays of different dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

4. Discussion

The goal of this study was to analyze the contents of online dating profiles to examine how individuals displayed their dependents as signals of mate value according to predictions rooted in SST. To review, two comparison groups were used to test four predictions; of which only the first pair was supported.

A between-mating strategy comparison was made:

A. Men adopting a long-term mating strategy will be more likely to display a dependent on their dating profiles than men adopting a short-term mating strategy.
B. Regarding those who display a dependent, men adopting a long-term mating strategy will display them with higher frequency on their dating profiles than men adopting a short-term mating strategy.

As well as a between-sex comparison:

A. Men adopting a long-term mating strategy will be more likely to display a dependent on their dating profiles than women adopting a long-term mating strategy.
B. Regarding those who display a dependent, men adopting a long-term mating strategy will display them with higher frequency on their dating profiles than women adopting a long-term mating strategy.

Before discussing the main results of this study, it should be noted that very few women in the entirety of sample locations who indicated they sought a short-term mate were found – which is consistent with previous work (e.g., Buss & Schmitt, 1993). Women tend towards a long-term mating strategy as they are the higher-investing sex. Conversely,

men tend to seek short-term mates as reproduction is much less costly for them. However, I found no shortage of men adopting a long-term mating strategy. This suggests that men's mating strategies may be more flexible relative to women's and is interesting as Schacht and Borgerhoff-Mulder (2015) found that men and women reported being equally interested in short-term mating.

4.1 Displays of Dependents

4.1.1 Men: Between-Mating Strategy Comparison

The predictions for my between-mating strategy comparison were supported: men who were seeking a long-term mate were more likely to display a dependent (and of those that displayed them, did so with a higher frequency) on their profile compared to men seeking a short-term mate. Previously, I proposed that men seeking long-term relationships (i.e., adopting a long-term mating strategy) show dependents as a way of advertising their parenting abilities, as well as their ability and willingness to provide resources (i.e., their investment potential), which align with women's long-term mate preferences. Past research has explored the emphasis that women place on men's resources when seeking a mate, such that women most prefer mates who have status (Li & Kenrick, 2006), finances (including personality characteristics related to the accrual of these resources: Buss & Schmitt, 1993), and attributes related to parenting and familial commitment (perhaps even more so than resources: Bereczkei et al., 2010). Such patterns emerge as women are the higher investing sex in terms of both minimal obligatory investment and providing parental care which may reduce their ability to support themselves and children (Buss & Schmitt, 1993). These preferences are generally stronger in women when seeking long-term relationships as compared to women adopting a short-term mating strategy, who tend to

place a greater importance on physical attractiveness (Li & Kenrick, 2006, see also humour and sociability: Mehmetoglu & Määttänen, 2020) rather than resource provisioning. Moreover, men's parenting abilities are irrelevant in these latter contexts since short-term mating situations are characterized by a brief encounter (Buss & Schmitt, 1993).

These results show evidence of cross-sex mind-reading, which Geher (2009) posits as advantageous for heterosexual individuals to determine the mate preferences of potential mates and advertise those features. Cross-sex mind-reading may be a form of mating intelligence, whereby one anticipates what potential mates desire, leading to more successful courtship. Geher (2009) proposes that there are different types of cross-sex mind-reading that are relevant to this study: men's ability to know the short- and long-term preferences of women, and women's ability to know the short- and long-term preferences of men. His findings largely indicate that of these four forms, the most accurate is men reading women's long-term preferences. His reasoning is that, "given the notoriously discriminating nature of females' choices in mate selection...coupled with strong tendencies for females to pursue long-term mating strategies…there may be particularly strong pressure on males to 'get it right' when it comes to long-term desires of females" (p. 344). This study's findings align well with those of Geher (2009), as well as his explanation. That is, men may be showing dependents when seeking a long-term mate because they know that women prefer men who show these abilities in this relationship context.

4.1.2 Long-Term Mating Strategy: Between-Sex Comparison

In contrast with my between-mating strategy predictions, those regarding the between-sex comparisons were not supported: women who were seeking a long-term mate

were equally likely to show a dependent (and of those that displayed them, did so with a similar frequency) on their profile when compared to men also seeking a long-term mate. Although dependents are proposed to signal their carer can provide different types of investment (e.g., Kogan & Volsche, 2020), this investment is much less important to men than it is to women – with the exception of caring abilities. For instance, qualities of a good parent are valued in a potential long-term mate (e.g., Woodward & Richards, 2004) by men (and women). These parenting qualities are sought as mutual cooperation and division of labour may allow more efficient usage of male investment (Buss & Schmitt, 1993). Moreover, men face the problem of paternity uncertainty when reproducing as, due to concealed ovulation, men can never be certain a child is genetically theirs (Trivers, 1972). Thus, for men to enter a long-term relationship, the benefits (i.e., increased fitness) should outweigh these potential costs (i.e., paternity uncertainty, inefficient resource allotment). To encourage this, women then must show they are a high-quality mate and indicate their parental competence (alongside cues of commitment and fertility: Buss & Schmitt, 1993). Consequently, this study's findings suggest women may be displaying their dependents more than predicted to advertise their parenting abilities (i.e., cross-sex mind-reading: Geher, 2009). This explanation is supported by Goetz (2013), who showed women seeking long-term mates were more likely to present indicators of their parenting skills on their personal advertisements than women seeking short-term mates and men seeking any mate.

4.2 Types of Dependents

4.2.1 Men: Between-Mating Strategy Comparison

Men adopting a long-term mating strategy were more likely to exhibit a child on their profile (and of those that displayed a dependent, did so with a higher frequency)

compared to men adopting a short-term mating strategy. This suggests that men used children to showcase qualities more relevant to women seeking long-term mates than short-term ones (which is not necessarily a conscious endeavour: Buss & Schmitt, 1993). Viewing children as signals of their carer's investment potential can explain these findings. First, a child can take up to $250,000 to raise to adulthood in Canada (Brown, 2015), making them an indicator of their parent's ability to accrue and provide financial resources. Second, Kemkes (2008) found that men are viewed as possessing higher social status when posing with a child than men without, potentially as social status is closely associated with financial status and low-status men have difficulty finding mates. Last, children require vast amounts of care to raise, so they signal parenting (e.g., caring) abilities in their carer (Kemkes, 2008).

A similar pattern was found regarding the displays of canines: men adopting a long-term mating strategy were also more likely to exhibit them (and of those that displayed a dependent, did so with a higher frequency) compared to men adopting a short-term mating strategy. Thus, a similar logic can be applied: to explain these findings, studies have suggested that canines are signals of male carer's investment potential. Canines require substantial training, socialization, and financial investment to raise (Zasloff, 1996; Gray et al., 2015; Kogan & Volsche, 2020), are perceived as being a "masculine" pet (Tifferet et al., 2013; Mitchell & Ellis, 2013; Gray et al., 2015; Kogan & Volsche, 2020), and improve men's perceived mate value (Tifferet et al. 2013). This may be related to the idea that carers of canines are dominant, which may signal status (e.g., Mosteller, 2008). Qualities that correlate with dominance are sought by women adopting long-term mating strategies for two reasons: first, women must solve the problem of procuring protection for

themselves and potential offspring from other men; and second, such qualities assist in resource acquisition which women seek (Buss & Schmitt, 1993, 2016). As reviewed earlier, the investment that children and canines show their carer can provide to a mate and offspring is desired more by women seeking a long-term mate than women seeking short-term ones (e.g., Buss & Schmitt, 1993).

However, no difference was found regarding how men adopting long- and short-term mating strategies displayed non-canine pets on their profiles. It was casually observed that the non-canine variable in this study was comprised mostly of descriptions and pictures pertaining to felines. Thus, men's hesitancy to display non-canines in a mating arena may in part be explained through the findings of Mitchell and Ellis (2013): heterosexual and homosexual men show awareness of Western perceptions of feline-ownership being more feminine, which has negative social connotations for men and may not be a trait that women seek in a potential mate (DeBruine et al., 2006; though, see Burriss et al., 2014 for a rebuke of this position). Overall, what these results indicate is that, again, long-term oriented men are aware of what women want (i.e., specific investment) according to the type of relationship they pursue (i.e., cross-sex mind-reading: Geher, 2009) and are willing show they can meet these wants through different means (i.e., by displaying children and canine dependents and not non-canines to show that they are a valuable mate).

4.2.2 Long-Term Mating Strategy: Between-Sex Comparison

Women were not only more likely to display a child on their profile when compared to men also seeking a long-term mate, but also trended towards having more pictures and descriptions pertaining to them on their profiles as well (when comparing daters who displayed a dependent). These findings are congruent with Kisilevich and Last (2010) who

found that, across 35 countries, women were more likely than men to disclose a child on a personal advertisement. Thus, women may have displayed children to showcase traits desired by men also seeking a long-term mate. As reviewed, raising a child is labour-intensive, thus making them signals of their carer's ability and willingness to provide parental care to a potential mate and offspring (Kemkes, 2008). However, children are likely stronger signals of this for women as they spend the most time caring for them (e.g., on non-workdays, fathers engage in leisure 47% of the time while mothers perform childcare: Kamp Dush et al., 2017). As an additional explanation for this pattern, 80% of separated Canadian women have primary custody of their children (Government of Canada, 2015) and online dating platforms have become increasingly popular for single parents to search for suitable mates (Finkel et al., 2012). Therefore, they may be displayed to honestly inform a prospective mate of her current familial situation, or even to signal fertility if said dater was in her reproductive prime (such cues are important to both men seeking long- and short-term mates: Buss & Schmitt, 1993, 2016).

Men adopting a long-term mating strategy were also more likely to display a canine (and of those that displayed a dependent, did so with a higher frequency) than women also adopting a long-term mating strategy. This suggests that canines were used to signal qualities in their carer that were more relevant to women seeking a long-term mate than men seeking the same. Again, this is logical as canines have been shown to be strong signals of their male carer's mate value (e.g., Kogan & Volsche, 2020), regarding high investment potential and dominance-related qualities.

Similar to the displays of children, women were more likely to display a non-canine on their profile when compared to men also seeking a long-term mate (though, no

difference was found regarding the frequency of displays). These findings are partially in contention with Ingram (2019) who discovered that men are more likely than women to pose with a pet in similar situations. As an explanation for my findings, non-canine pets may be cheap, easy ways to signal caring abilities as cats (which the non-canines variable mainly comprised of) require minimal investment from their carer to raise (Zasloff, 1996; Gray et al., 2015; Kogan & Volsche, 2020). Additionally, men may have avoided displaying them to prevent themselves as being portrayed as feminine (Mitchell & Ellis, 2013).

Overall, these findings again support the view that women are also aware of what men want when seeking a long-term mate (i.e., cross-sex mind-reading: Geher, 2009). Men do seek attributes of a good parent in prospective long-term mates (e.g., Buss & Schmitt, 2016), so female daters may have used children and non-canines to signal their caring abilities which demonstrates their high mate value. Past research has also found that the qualities canines signal that their carer possesses are more relevant to women than men – especially those seeking long-term mates (e.g., Buss, 1989), and that men's reproductive success is more contingent on showing they have these traits than women's as the latter are the higher-investing sex (Trivers, 1972; Clutton-Brock & Scott, 1991). Therefore, these results show that men in this comparison may have been aware of this and displayed canines accordingly (e.g., Geher, 2009).

4.3 Limitations and Future Work

While the results of this study are convincing, it is not without limitations. First, daters were assumed to adopt a certain mating strategy according to their intent for being on POF (i.e., seeking a relationship/commitment or casual dating/no commitment). As

online presences become more pervasive, there is an increased opportunity for dishonest self-representation (Postmes et al., 2002; Tewksbury, 2005; Ellison et al., 2006; Gibbs et al., 2006; Finkel et al., 2012). However, as the probability of meeting increases, dishonest advertisement decreases, especially in a mating context (Ellison et al., 2006; Gibbs et al., 2006; Guadagno et al., 2012; Drouin et al., 2016). Therefore, using SST to predict how people display their mate value on dating profiles is a valuable avenue of exploration, provided that individuals are seeking mating arrangements which reflect the need for physical encounters (i.e., those seeking a sexual/romantic relationship or a casual tryst, rather than "friends" or "pen pals"). Both sexes may lie about their mating intentions to get what they want from the opposite sex – such as resources or sexual receptivity (Buss & Schmitt, 1993; Haselton et al., 2005). However, it was assumed daters were relatively honest in their profile construction as their indicated reasons for being on POF implied future meeting with a prospective mate. If such dishonesty was present in my study, then the arguments regarding why daters displayed dependents would be less applicable as the mating strategy of a prospective mate influences their mate preferences. For a more accurate understanding of a dater's true intentions, daters could first be assessed using the Sociosexual Orientation Inventory (for an extended version, see Jackson & Kirkpatrick, 2007) to determine whether daters truly leaned towards short-term or long-term mating, before recording their profile's content.

Second, a recent article by The Washington Post discussed the rise of "dog-fishing": where daters pose with animals on their dating profiles which are not their own to trick prospective mates and facilitate interaction with them (Nyguen, 2019). If this was the case in this study, then daters would not have been accurately portraying their investment

potential. Though, it may strengthen the idea that dependents signal mate-relevant qualities in their carer if daters went out of their way to show dependents off which were not theirs. Thus, surveying daters before sampling them to determine whether dependents they are showing on dating profiles are actually in their care may get around this. It also may be interesting to examine whether these dishonest displays occur with other dependents as well (e.g., children).

Third, the age of daters was left unrestricted. Age strongly influences mating behaviour as it correlates with fertility (Conroy-Beam & Buss, 2019): with an increase in age, women's fertility decreases sharper than men's (Hill & Hurtado, 1991). Consequently, mating motives change with age (McWilliams & Barrett, 2012): older women report being driven to seek younger mates who can provide emotional support, companionship, and an active social life rather than resources, and feel more obliged to be a caretaker in later life. Older men also seek out younger mates, but for different reasons: they seek a caregiver who is attractive. Therefore, how these motives influence the ways by which middle- and later-aged individuals present their mate value (e.g., by exhibiting their dependents) in mating arenas deserve future consideration. For example, the study at hand could be redone to examine how daters in their reproductive prime, as well as those pre- and post-reproductive prime (male fertility declines in their late 30s, whereas women's sharply declines in their late 20s: Dunson et al., 2002), display their dependents on an online dating platform

In addition to addressing the potential limitations, several additional avenues of future research have emerged from this work. A logical avenue of future exploration would be to survey whether daters who show off their dependents are more successful in attracting

a mate or not. This could support the position that dependents are cues of their carer's investment potential if sex- and mating strategy-specific differences are uncovered as Whitty (2008) found that those (particularly men) who show they can accrue and provide resources attract mates easier than those who do not. For example, one could compare men seeking long-term mates who did and did not exhibit dependents in mating arena. If daters who displayed their dependent reported being more successful in finding a mate, this would indicate dependents signal qualities (e.g., resources and parenting abilities) in their carer which are relevant to women – especially those also seeking long-term mates.

Moreover, Buss (1989) showed that how individuals display their mate value can be context dependent. Sociocultural norms can sway what constitutes a quality mate – what is relevant to one society/culture may be irrelevant to another. For example, canines are generally valued as family members in Western society (Corso, 2007), so much so that they commonly sleep on their carer's bed (Mosteller, 2008). However, in some cultures, canines are viewed as socially undesirable (e.g., dirty or potentially dangerous: Brown, 1985). Thus, this study could easily be repeated by filtering daters according to a different country/city to examine whether the exhibition of pets (or even children) on online dating profiles holds true across cultures.

What was most interesting about this study was that the pattern canines were exhibited followed the predictions made for dependents in general. Therefore, one could examine how different breeds are displayed as Guéguen and Ciccotti (2008) found this influences their carer's approachability. For instance, younger, lighter colored pets facilitated more social interactions than more "intimidating" breeds. Regarding the displays of children, future work attempt to support the idea that mothers may display

children to communicate their fertility to a potential mate. One could do this by comparing mothers of reproductive age who indicate they do and do not want to have children and see if this influences how children are presented on online dating profiles (this information is readily available on POF profiles). Finally, to support (or weaken) the argument regarding pets as signals of caring abilities, it would be interesting to assess the relationship between pet ownership and parental qualities.

5. Supplementary Results

As stated previously, daters were also sampled from Nova Scotia (a second time; NS2) and Ottawa (OT) once COVID-19 cases resurged and restrictions on social gatherings were reinstated to examine if this influenced how daters display dependents.

5.1 NS2 Results

5.1.1 Displays of Dependents

First, the main analysis was redone using NS2 daters. Table 5 indicates the variables which predicted their displays of dependents.

Table 5. Model comparison of the predictive strength of sex and mating strategy on whether or not daters (NS2) displayed dependents, and the number of such displays on their dating profile regarding daters who displayed a dependent. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. The best model differs from others by ΔAIC_C of 2 or greater and are shown in bold; if less than 2, both models had similar predictive power and left un-bolded for clarity.

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
proportion displaying	mating strategy	(intercept)	104.30	0.00	0.59
		mating strategy	105.10	0.80	0.41
	sex	(intercept)	84.10	0.00	0.53
		sex	84.81	0.71	0.47
total displays	mating strategy	**mating strategy**	**183.16**	**0.00**	**0.80**
		(intercept)	185.92	2.76	0.20
	sex	**sex**	**201.90**	**0.00**	**0.99**
		(intercept)	211.98	10.08	0.01

5.1.1.1 Men: Between-Mating Strategy Comparison. For the between male mating strategy comparison, 72.50% of men adopting a long-term mating strategy displayed a dependent, compared to 60.00% of men adopting a short-term one. Thus, they were equally likely to display a dependent on their profile (Table 5, Figure 5A). Using daters that displayed a dependent as a subset of data, how much they showed their dependents off on their profile was examined. Men adopting a long-term strategy displayed dependents at a significantly higher frequency (M = 2.65, SD = 1.52) than those who declared a short-term approach in their profiles (M = 1.75, SD = 0.99; Table 5, Figure 5B).

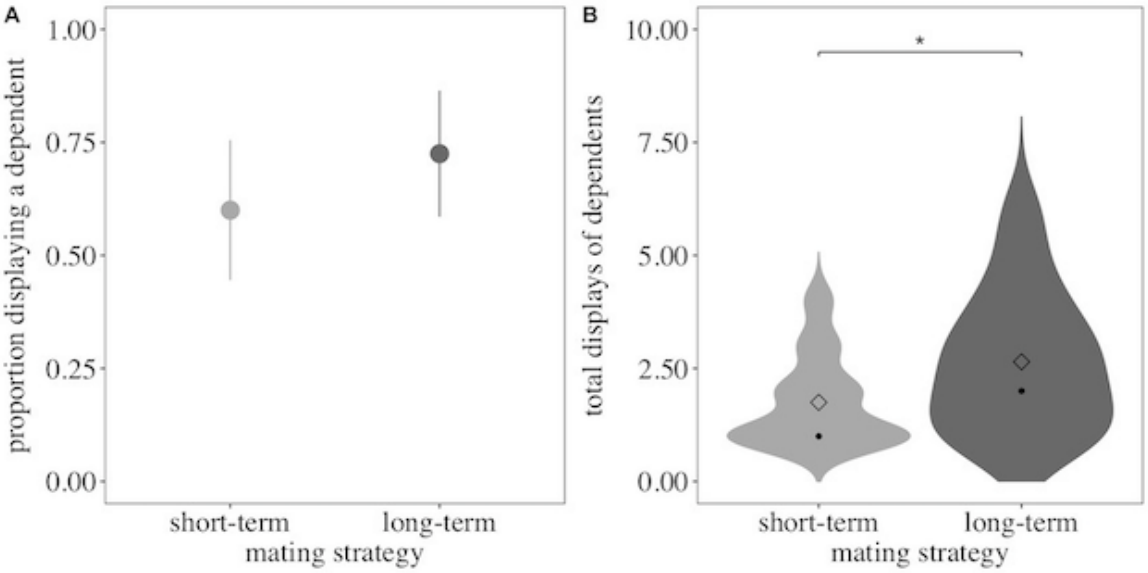

Figure 5. Between-mating strategy comparison: influence of male dater's (NS2) mating strategy on the displays of dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A) Comparison of proportion of daters displaying any dependent on their profile; vertical lines denote 95% confidence interval; B) Comparison of daters who displayed a dependent regarding the frequency of such displays; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

5.1.1.1.2 Long-Term Mating Strategy: Between-Sex Comparison. For the between-sex comparison of men and women adopting a long-term mating strategy, both sexes were equally likely to show off a child or pet on their profile (85.00% of women did so; Table 5, Figure 6A). However, when examining the frequency with which the two sexes mentioned or displayed dependents, men displayed them a significantly higher frequency than women (M = 1.43, SD = 0.65) also adopting a long-term strategy (Table 5, Figure 6B).

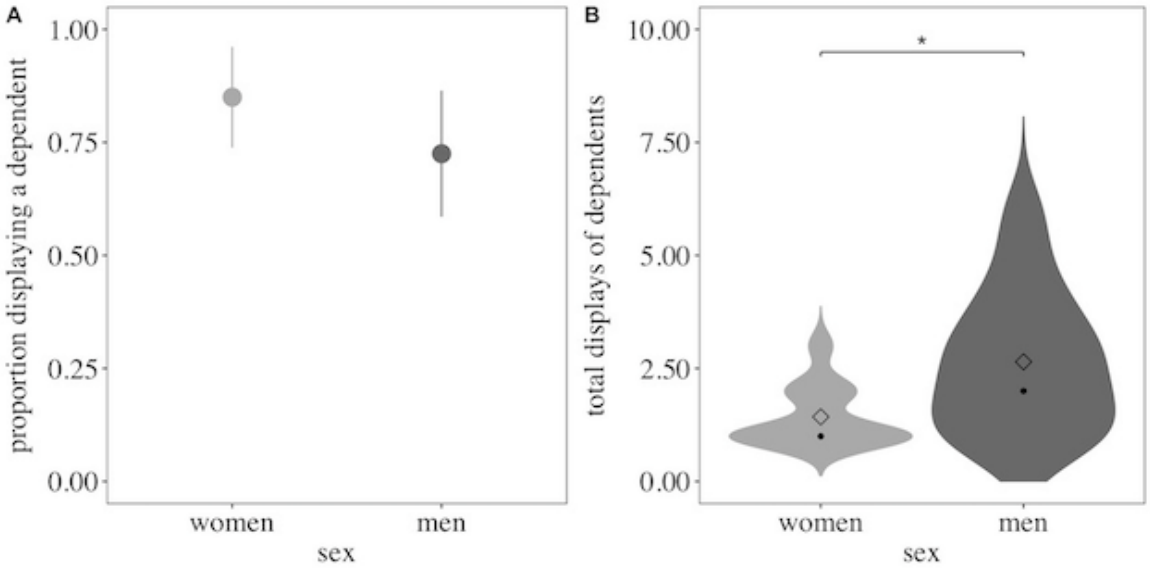

Figure 6. Between-sex comparison: influence of sex regarding daters (NS2) adopting long-term mating strategies on the displays of dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A) Comparison of proportion of daters displaying any dependent on their profile; vertical lines denote 95% confidence interval; B) Comparison of daters who displayed a dependent regarding the frequency of such displays; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

5.1.2 Types of Dependents

Second, the NS2 daters were also used for the exploratory analysis, Table 6 outlines which variables predicted the displays of different dependents on profiles.

Table 6. Model comparison of the predictive strength of sex and mating strategy on whether or not daters (NS2) displayed different dependents, and the number of such displays on their dating profile regarding daters who displayed a dependent. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. The best model differs from others by ΔAIC_C of 2 or greater and are shown in bold; if less than 2, both models had similar predictive power and left un-bolded for clarity.

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
children					
proportion displaying	mating strategy	(intercept)	84.81	0.00	0.67
		mating strategy	86.24	1.43	0.33
	sex	(intercept)	84.81	0.00	0.67
		sex	86.24	1.43	0.33
total displays	mating strategy	(intercept)	111.60	0.00	0.67
		mating strategy	113.02	1.42	0.33
	sex	(intercept)	90.92	0.00	0.67
		sex	92.35	1.43	0.33
canines					
proportion displaying	mating strategy	**mating strategy**	**106.66**	**0.00**	**0.75**
		(intercept)	108.87	2.21	0.25
	sex	sex	108.48	0.00	0.83
		(intercept)	109.73	1.25	0.27
total displays	mating strategy	**mating strategy**	**152.96**	**0.00**	**1.00**
		(intercept)	165.70	12.74	0.00
	sex	**sex**	**174.30**	**0.00**	**1.00**
		(intercept)	193.04	18.74	0.00

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
non-canines					
proportion displaying	mating strategy	(intercept)	99.79	0.00	0.72
		mating strategy	101.66	1.87	0.28
	sex	**sex**	**105.05**	**0.00**	**0.97**
		(intercept)	111.70	6.65	0.03
total displays	mating strategy	**(intercept)**	**140.80**	**0.00**	**0.74**
		mating strategy	142.93	2.13	0.26
	sex	**(intercept)**	**95.14**	**0.00**	**0.74**
		sex	97.50	2.36	0.26

Note: Table 6 continued.

5.1.2.1 Men: Between-Mating Strategy Comparison. When comparing male daters by their mating strategy, 25.00% adopting a long-term strategy had a picture and/or a description pertaining to a child on their profile, which was similar to 17.50% seeking a short-term mate (Table 6, Figure 7A). Regarding this comparison, for daters who displayed a dependent, men seeking long-term mates ($M = 0.42$, $SD = 0.72$) displayed children with a similar frequency to men seeking short-term mates ($M = 0.58$, $SD = 1.06$; Table 6, Figure 7D). Regarding the displays of canines, 50.00% of male daters adopting a long-term strategy had a canine on their profile, compared to 27.50% of men who declared a short-term approach on their profile. Thus, the former was significantly more likely than the latter to display a canine (Table 6, Figure 7B). These long-term oriented men ($M = 1.55$, $SD = 1.50$) who displayed a dependent also displayed canines significantly more than short-term oriented males ($M = 0.50$, $SD = 0.59$; Table 6, Figure 7E). Finally, when examining how non-canine pets were displayed, no differences were found between this male

comparison (Table 6, Figure 7C, Figure 7F): 27.50% adopting a long-term and 32.50% adopting a short-term strategy displayed them, and those that did, displayed with similar frequency (long-term: $M = 0.74$, $SD = 1.41$; short-term: $M = 0.71$, $SD = 0.81$).

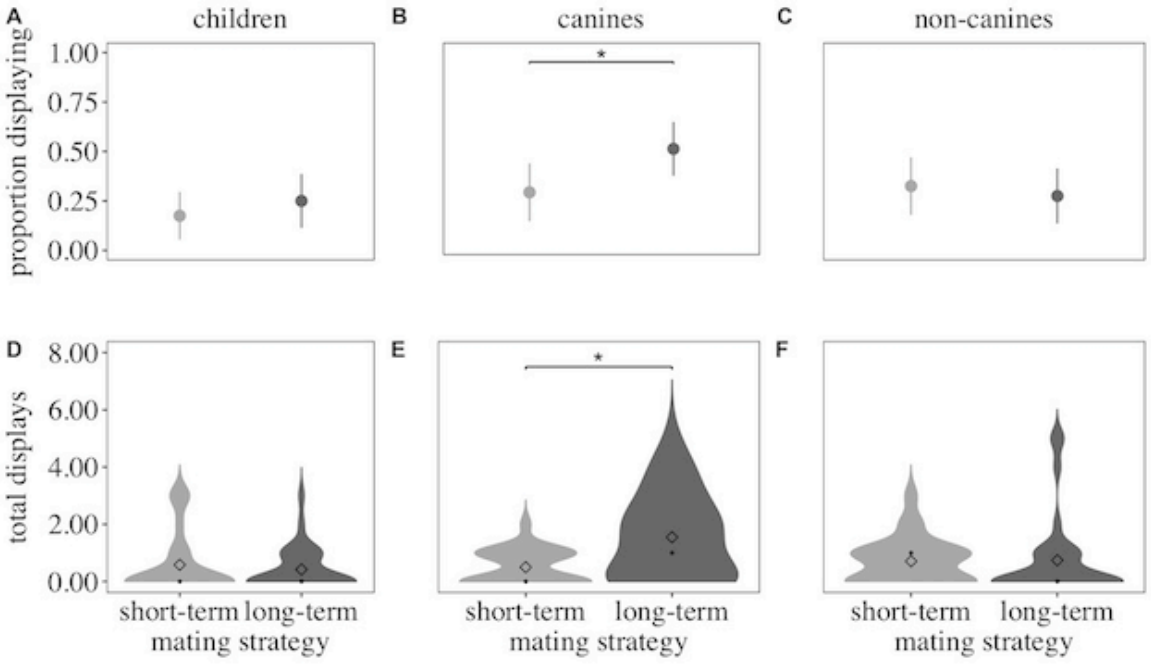

Figure 7. Between-mating strategy comparison: influence of male dater's (NS2) mating strategy on the displays of different dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A-C) Comparison of proportion of daters displaying any dependent on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency of different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

5.1.2.2 Long-Term Mating Strategy: Between-Sex Comparison. When comparing male and female daters adopting long-term mating strategies, both sexes were equally likely to display a child on their profile (17.50% of women displayed; Table 6, Figure 8A). Regarding this comparison, for daters who displayed a dependent, no difference was found regarding the frequency children were displayed (women: $M = 0.17$,

SD = 0.38; Table 7, Figure 8D). Furthermore, both sexes were equally likely to display a canine as 30.00% of women seeking a long-term mate displayed one (Table 6, Figure 8B). Regarding this comparison, for daters who displayed a dependent, men displayed canines significantly more frequently than women (*M* = 0.74, *SD* = 1.45; Table 6, Figure 8D). Finally, 60.00% of women adopting a long-term strategy displayed a non-canine, which was significantly more than the proportion of men adopting the same strategy who did as well (Table 6, Figure 8C). Though, these men and women (*M* = 0.77, *SD* = 0.60), who displayed a dependent, displayed non-canines with similar frequency (Table 6, Figure 8F).

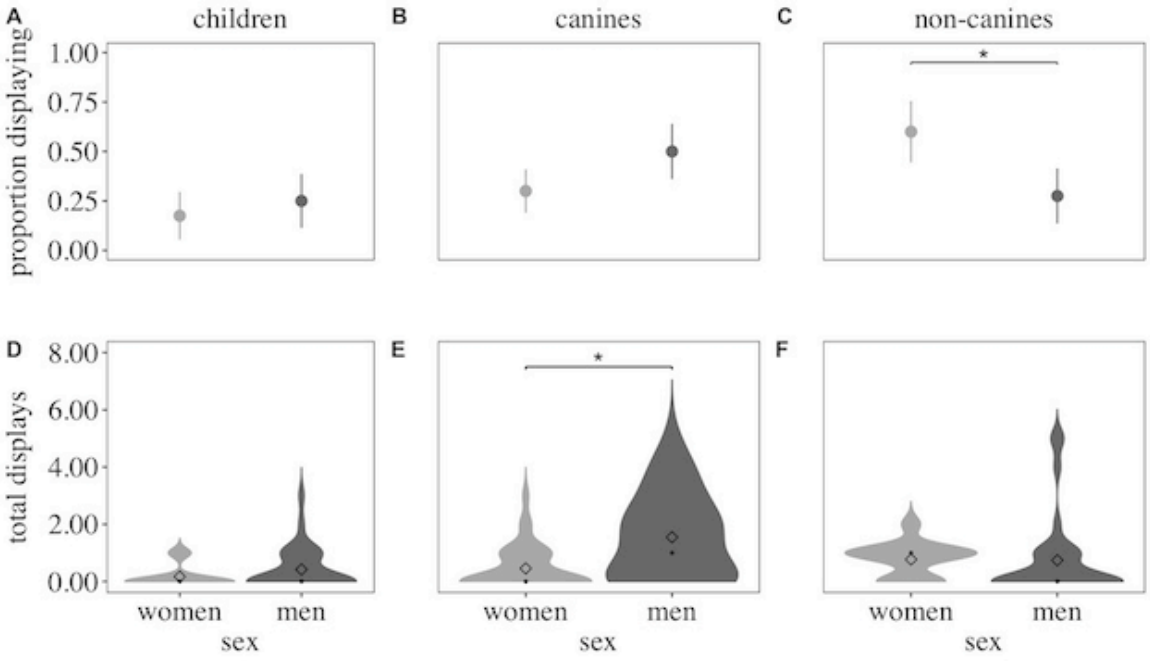

Figure 8. Between-sex comparison: influence of sex regarding daters (NS2) adopting long-term mating strategies on the displays of different dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

5.2 OT Results

5.2.1 Displays of Dependents

First, the main analysis was redone using OT daters. Table 7 indicates no single variable significantly predicted their displays of dependents.

Table 7. Model comparison of the predictive strength of sex and mating strategy on whether or not daters (OT) displayed dependents, and the number of such displays on their dating profile regarding daters who displayed a dependent. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. The best model differs from others by ΔAIC_C of 2 or greater and are shown in bold; if less than 2, both models had similar predictive power and left un-bolded for clarity.

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
proportion displaying	mating strategy	(intercept)	112.90	0.00	0.70
		mating strategy	114.56	1.65	0.30
	sex	(intercept)	112.75	0.00	0.54
		sex	113.05	0.29	0.46
total displays	mating strategy	(intercept)	118.75	0.00	0.67
		mating strategy	120.13	1.38	0.33
	sex	(intercept)	141.66	0.00	0.69
		sex	143.30	1.64	0.31

5.2.1.1 Men: Between-Mating Strategy Comparison. For the between-mating strategy comparison, men adopting a long-term strategy displayed their dependents in a similar fashion to men adopting a short-term one (Figure 9A, Figure 9B). They were equally likely to display a dependent (45.00% vs. 52.50% respectively), and those that did, displayed them with a similar frequency (M = 2.33, SD = 1.03 vs. M = 1.75, SD = 0.99 respectively; Table 7).

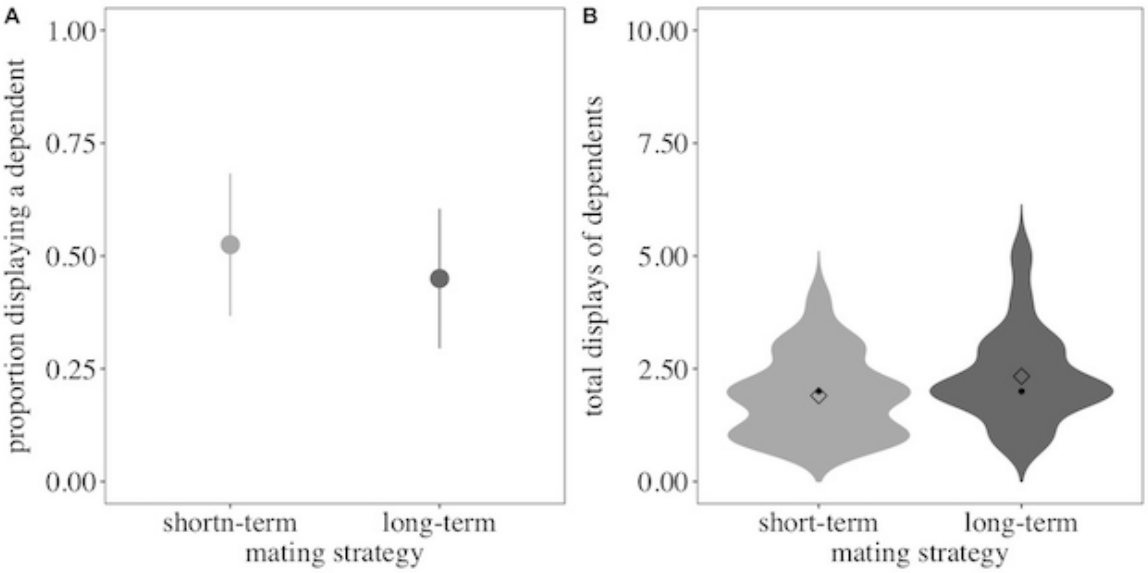

Figure 9. Between-mating strategy comparison: influence of male dater's (OT) mating strategy on the displays of dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A) Comparison of proportion of daters displaying dependents on their profile; vertical lines denote 95% confidence interval; B) Comparison of daters who displayed a dependent regarding the frequency they were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

5.2.1.2 Long-Term Mating Strategy: Between-Sex Comparison. When comparing men and women adopting long-term strategies, both sexes displayed their dependents in a similar fashion (Figure 10A, Figure 10B). They were equally likely to display a dependent (60.00% of women displayed), and those that did, displayed them with a similar frequency (women: $M = 2.71$, $SD = 1.40$; Table 7).

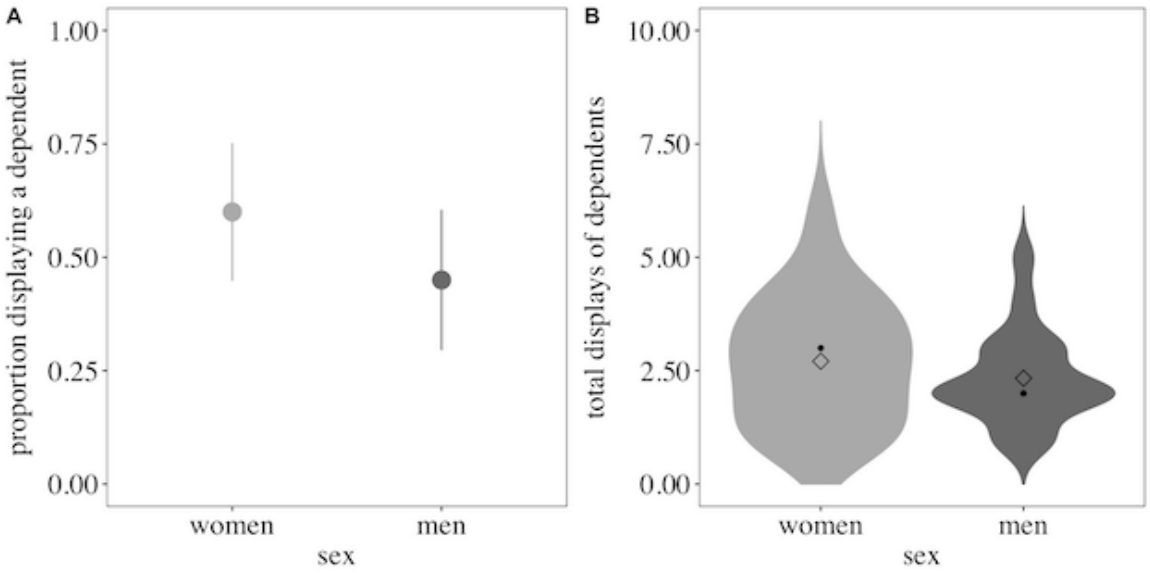

Figure 10. Between-sex strategy comparison: influence of sex regarding daters (OT) adopting long-term mating strategies on the displays of dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A) Comparison of proportion of daters displaying dependents on their profile; vertical lines denote 95% confidence interval; B) Comparison of daters who displayed a dependent regarding the frequency they were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

5.2.2 Types of Dependents

Second, the OT daters were also used for the exploratory analysis; as seen in Table 8, no single variable predicted the displays of different types of dependents on a profile.

Table 8. Model comparison of the predictive strength of sex and mating strategy on whether or not daters (OT) displayed different dependents, and the number of such displays on their dating profile regarding daters who displayed a dependent. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. The best model differs from others by ΔAIC_C of 2 or greater and are shown in bold; if less than 2, both models had similar predictive power and left un-bolded for clarity.

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
children					
proportion displaying	mating strategy	(intercept)	58.32	0.00	0.62
		mating strategy	59.28	0.96	0.38
	sex	(intercept)	58.32	0.00	0.62
		sex	59.28	0.96	0.38
total displays	mating strategy	(intercept)	81.43	0.00	0.72
		mating strategy	83.27	1.84	0.28
	sex	sex	107.26	0.00	0.64
		(intercept)	108.39	1.14	0.36
canines					
proportion displaying	mating strategy	(intercept)	107.90	0.00	0.65
		mating strategy	109.15	1.25	0.35
	sex	(intercept)	105.64	0.00	0.72
		sex	107.53	1.89	0.28
total displays	mating strategy	mating strategy	109.43	0.00	0.64
		(intercept)	110.54	1.11	0.36
	sex	(intercept)	141.64	0.00	0.72
		sex	143.30	1.86	0.28

dependents	comparison	model	AIC_C	ΔAIC_C	ω_{AICC}
non-canines					
proportion displaying	mating strategy	(intercept)	87.36	0.00	0.62
		mating strategy	88.31	0.95	0.38
	sex	sex	93.05	0.00	0.64
		(intercept)	94.16	1.11	0.36
total displays	mating strategy	(intercept)	74.27	0.00	0.69
		mating strategy	76.17	1.90	0.31
	sex	(intercept)	96.39	0.00	0.51
		sex	96.49	0.10	0.49

Note: Table 8 continued.

5.2.2.1 Men: Between-Mating Strategy Comparison. When comparing men adopting long-term and short-term mating strategies, daters displayed children in a similar fashion (Table 8, Figure 11A): 7.50% of men seeking a long-term mate and 15.00% of those seeking a short-term mate displayed one. Those adopting long-term (M = 0.39, SD = 0.92) and short-term (M = 0.53, SD = 1.03) mating strategies who displayed a dependent, also displayed children with similar frequency (Table 8, Figure 11D). This pattern continued when examining how canines were displayed (Table 8): men adopting long-term (32.50%) and short-term (42.50%) mating strategies were equally likely to display them, and of daters who displayed a dependent (Figure 11B), displayed canines with similar frequency (M = 1.61, SD = 1.38 vs. M = 0.95, SD = 0.59 respectively; Figure 11E). Non-canines also followed this pattern (Table 8): men adopting long-term (17.50%) short-term (27.50%) mating strategies were equally likely to display them (Figure 11C), and of daters

who displayed a dependent, displayed these types of dependents with similar frequency (*M* = 0.50, *SD* = 0.71 vs. *M* = 0.57, *SD* = 0.60 respectively; Figure 11F).

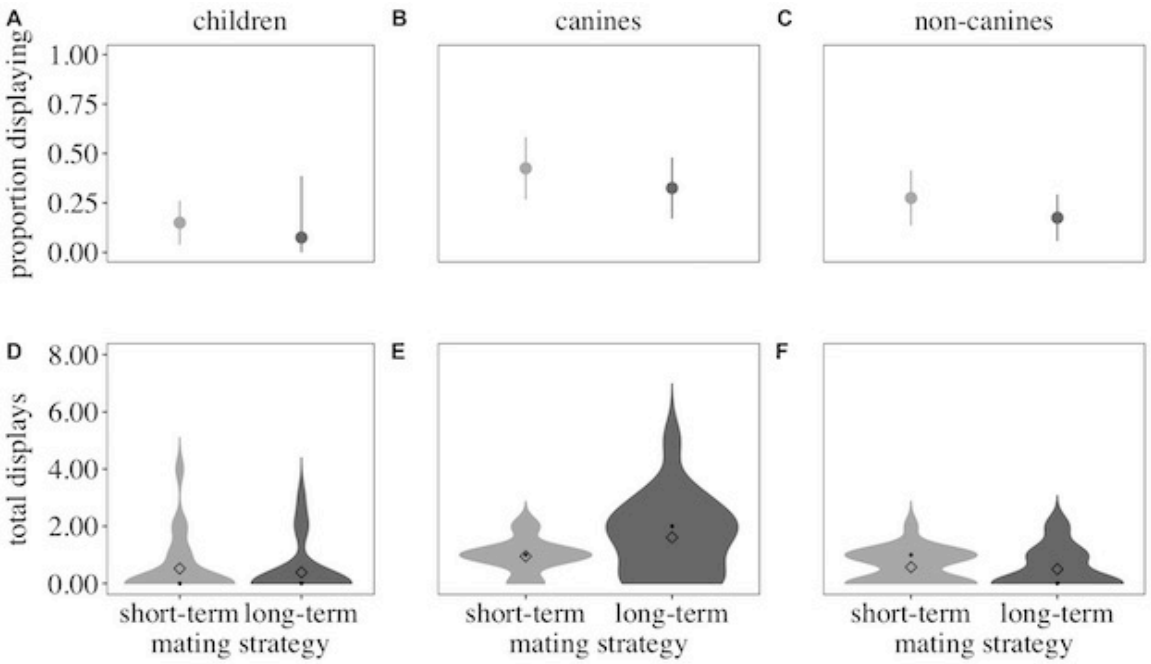

Figure 11. Between-mating strategy comparison: influence of male dater's (OT) mating strategy regarding the displays of different dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

5.1.2.2 Long-Term Mating Strategy: Between-Sex Comparison. When comparing women and men adopting a long-term strategy, daters displayed children in a similar fashion (Table 8, Figure 12A): 15.00% of women seeking a long-term mate displayed one, which was similar to the proportion of men. Regarding this comparison, men and women (*M* = 0.83, *SD* = 1.34) who displayed a dependent also had an equal number of pictures and descriptions pertaining to children on their profile (Table 8, Figure

12D). This pattern continued when examining how canines were displayed (Table 8): men and women (32.50%) were equally likely to display one, and of those who displayed a dependent, displayed canines with a similar frequency (women: M = 1.33, SD = 1.55; Figure 12B, Figure 12E). This pattern was also found when examining how non-canines were displayed (Table 8): men and women (35.00%) were equally likely to display them, and of those that displayed a dependent, displayed them with a similar frequency (women: M = 0.88, SD = 0.95; Figure 12C, Figure 12F).

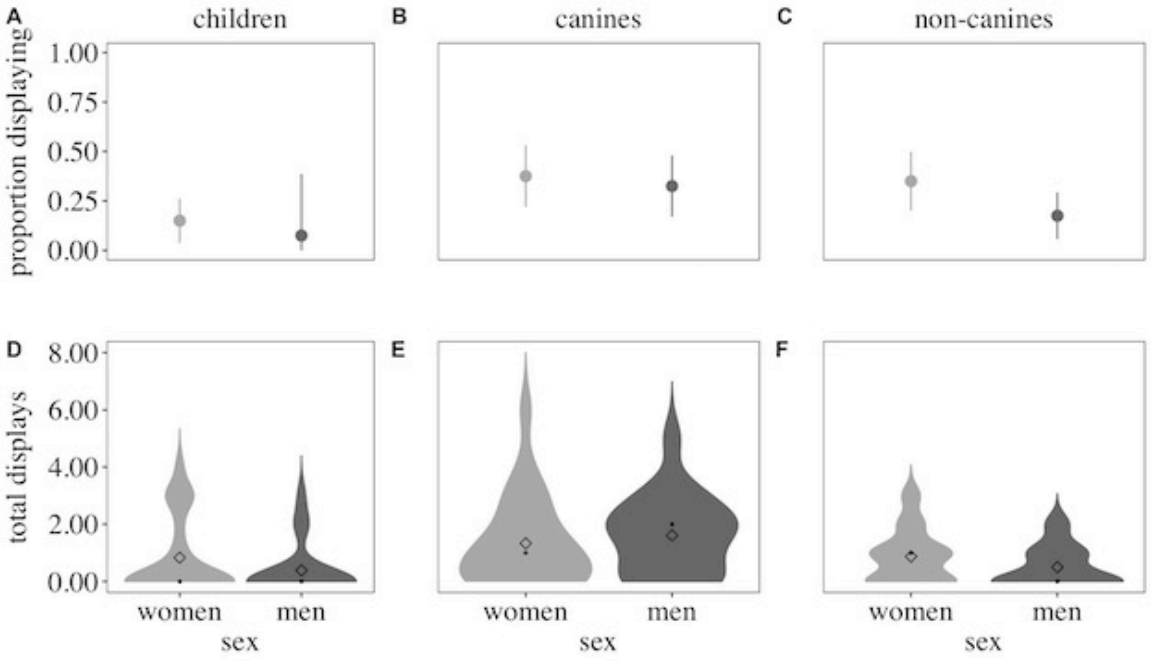

Figure 12. Between-sex comparison: influence of sex regarding daters (OT) adopting long-term mating strategies on the displays of different dependents on POF profiles; asterisks denote significant difference between comparison ($\Delta AIC_C \geq 2$). A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

5.3 Discussion and Future Work

These findings indicate is that the COVID-19 pandemic may have influenced how people displayed their mate value on an online dating platform. NS2 and OT daters were assumed to be exposed to more cues of environmental pathogen load than daters in the larger, first sample due to the second wave of the virus and subsequent lockdown. When exposed to such cues, Little (2014) found men seek out feminine facial traits (e.g., clear skin, full lips, soft jawline), while Jones et al., (2013) found women seek out masculine facial traits (e.g., strong jawline, facial symmetry). Whether such traits confer pathogen-resistance is up for debate (Cai et al., 2019); however, in light of this, one may expect daters to focus on portraying their physical attractiveness to appeal to mates under such circumstances, rather than investment capabilities (e.g., via dependents). Though not statistically analyzed, OT daters appeared to be less likely to display dependents than the two Nova Scotian samples. One potential reason for this is that Nova Scotia had fewer COVID-19 cases per capita than Ottawa (i.e., in mid-October, Nova Scotia had roughly 150 active cases, compared to 700 in Ottawa; Public Health Agency of Canada, 2021), so the pressure experienced by OT daters to display physical qualities (rather than investment potential) may have been greater than NS2 daters. Overall, NS2 and OT daters displayed their dependents differently than the first Nova Scotian sample. To further explain these overall findings, this study could be performed again after a large proportion of the world's population is vaccinated to see which pattern of displays of dependents holds.

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7. Appendix

For completeness, the analyses performed in this study were redone with all three samples to include women seeking no commitment/casual dating (i.e., adopting a short-term mating strategy). Summary statistics are also included here.

7.1 First Nova Scotian Sample

Table A1. Summary statistics for the variables in this study ($N = 721$).

sex/mating strategy	displays of dependents							
	children		canines		felines		other pets	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
men								
short-term	0.30	0.58	0.29	0.70	0.23	0.47	0.04	0.19
long-term	0.67	0.93	0.72	1.03	0.38	0.72	0.07	0.31
women								
short-term	0.71	0.89	0.19	0.58	0.46	0.67	0.07	0.33
long-term	0.82	0.75	0.44	0.83	0.47	0.67	0.04	0.21

Note: includes all daters, not just those who displayed a dependent.

Table A2. Model comparison of the effects of sex and mating strategy, as well as their additive ("+") and interactive ("×") effects on whether or not daters displayed dependents, and the number of such displays on their dating profile of daters who displayed one. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. Best model(s) differ from others by ΔAIC_C of 2 or greater and are bolded.

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
proportion displaying	**mating strategy × sex**	**724.89**	**0.00**	**0.50**
	mating strategy + sex	**724.96**	**0.08**	**0.47**
	mating strategy	730.61	5.72	0.30
	sex	776.45	51.57	0.00
	(intercept)	803.42	78.54	0.00
total displays	**mating strategy**	**1681.16**	**0.00**	**0.49**
	mating strategy × sex	**1682.21**	**1.05**	**0.29**
	mating strategy + sex	**1682.79**	**1.63**	**0.22**
	sex	1692.73	9.63	0.00
	(intercept)	1690.79	11.57	0.00

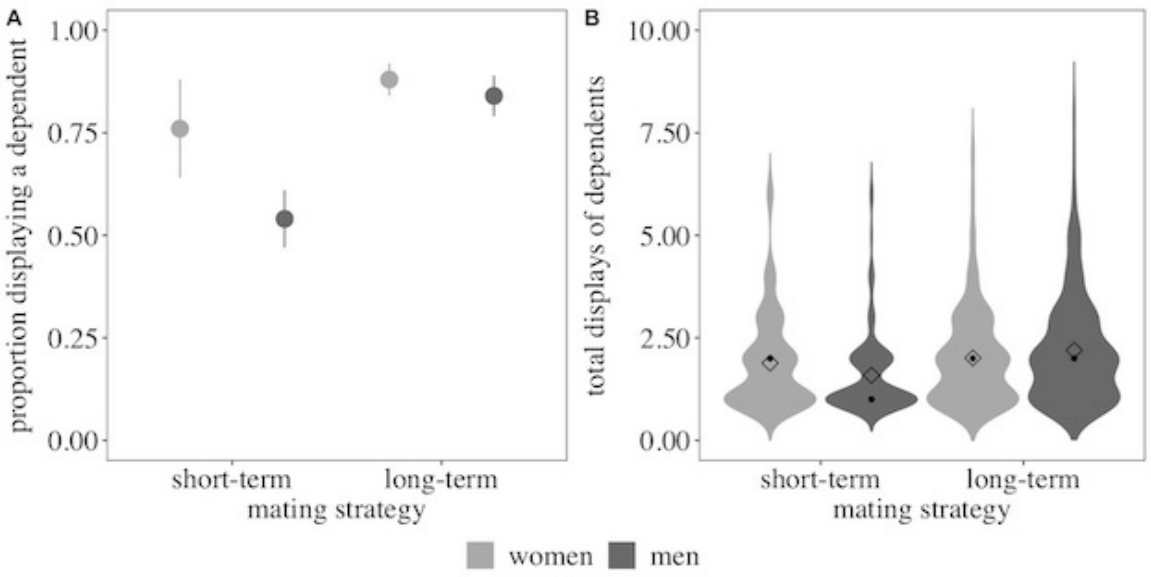

Figure A1. Influence of dater's sex and mating strategy on displays of dependents on POF profiles. A) Comparison of proportion of daters displaying dependents on their profile; vertical lines denote 95% confidence interval; B) Comparison of daters who displayed a dependent regarding the frequency of displays; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

Table A3. Model comparison of the effects of sex and mating strategy, as well as their additive ("+") and interactive ("×") effects on whether or not daters displayed different dependents, and the number of such displays on their dating profile of daters who displayed one. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. Best model(s) differ from others by ΔAIC_C of 2 or greater and are bolded.

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
children				
proportion displaying	**mating strategy + sex**	**919.02**	**0.00**	**0.65**
	mating strategy × sex	**920.22**	**1.20**	**0.35**
	sex	935.43	16.41	0.00
	mating strategy	951.41	32.39	0.00
	(intercept)	991.00	71.98	0.00
total displays	**mating strategy × sex**	**1245.88**	**0.00**	**0.47**
	mating strategy + sex	**1246.49**	**0.61**	**0.35**
	sex	1248.64	2.76	0.02
	mating strategy	1249.90	4.02	0.06
	(intercept)	1255.42	9.54	0.00

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
canines				
proportion displaying	**mating strategy + sex**	**849.22**	**0.00**	**0.68**
	mating strategy × sex	**851.19**	**1.97**	**0.26**
	mating strategy	853.95	4.73	0.06
	(intercept)	871.93	22.71	0.00
	sex	872.93	23.71	0.00
total displays	**mating strategy + sex**	**1192.35**	**0.00**	**0.73**
	mating strategy × sex	**1194.12**	**1.77**	**0.27**
	sex	1205.59	13.24	0.00
	mating strategy	1214.34	21.99	0.00
	(intercept)	1220.11	27.76	0.00
non-canines				
proportion displaying	**mating strategy + sex**	**911.66**	**0.00**	**0.42**
	sex	**912.08**	**0.42**	**0.34**
	mating strategy × sex	**912.96**	**1.30**	**0.22**
	mating strategy	918.36	6.70	0.02
	(intercept)	923.51	11.85	0.00
total displays	**(intercept)**	**1066.64**	**0.00**	**0.40**
	sex	**1067.28**	**0.64**	**0.29**
	mating strategy	**1068.61**	**1.97**	**0.15**
	mating strategy + sex	1069.30	2.66	0.11
	mating strategy × sex	1070.70	4.06	0.05

Note: Table A3 continued.

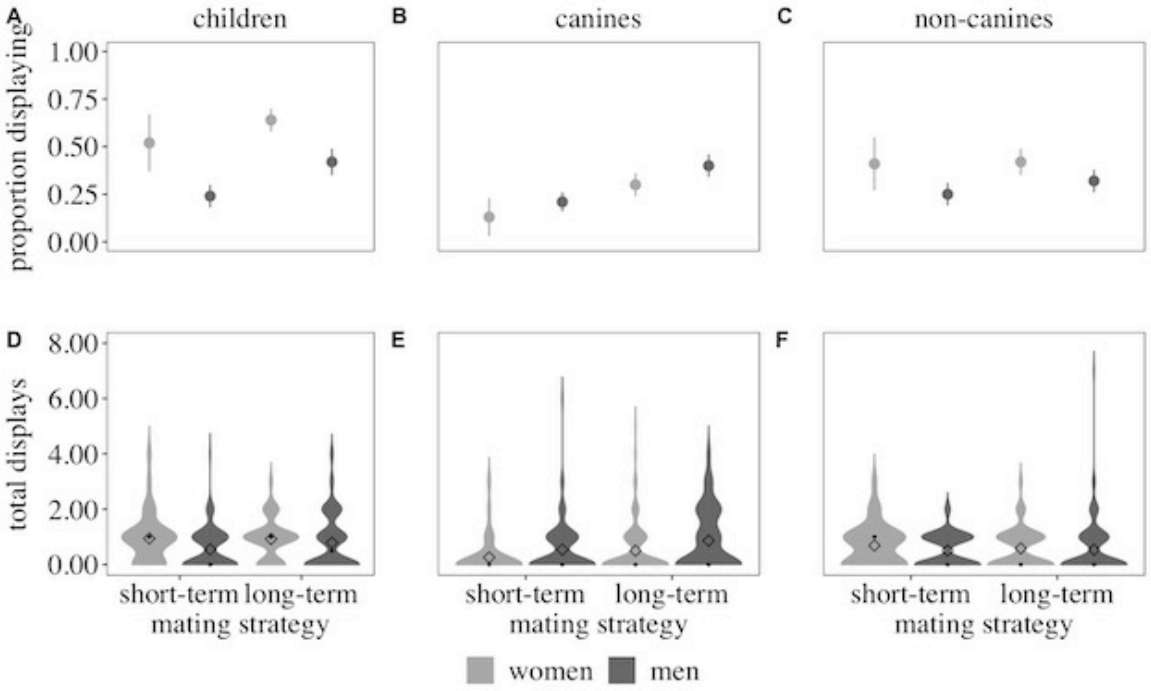

Figure A2. Influence of dater's sex and mating strategy on displays of different dependents on POF profiles. A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical denote indicate 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

7.2 NS2

Table A4. Summary statistics for the variables in this study (NS2: $N = 128$).

sex/mating strategy	displays of dependents							
	children		canines		felines		other pets	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
men								
short-term	0.58	1.60	0.50	0.30	0.43	0.71	0.00	0.00
long-term	0.42	0.72	1.54	1.20	0.55	1.20	0.03	0.16
women								
short-term	0.75	1.04	0.38	0.52	0.63	0.52	0.00	0.00
long-term	0.15	0.36	0.40	0.71	0.60	0.59	0.08	0.35

Note: includes all daters, not just those who displayed a dependent.

Table A5. Model comparison of the effects of sex and mating strategy, as well as their additive ("+") and interactive ("×") effects on whether or not daters (NS2) displayed dependents, and the number of such displays on their dating profile of daters who displayed one. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. The best model(s) differ from others by ΔAIC_C of 2 or greater and are bolded.

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
proportion displaying	**sex**	**142.56**	**0.00**	**0.42**
	mating strategy × sex	**143.07**	**0.47**	**0.34**
	mating strategy + sex	**144.23**	**1.67**	**0.18**
	mating strategy	147.96	5.40	0.03
	(intercept)	148.15	5.59	0.03
total displays	**mating strategy × sex**	**299.40**	**0.00**	**0.73**
	sex	302.56	3.16	0.15
	mating strategy + sex	303.55	4.15	0.09
	(intercept)	306.16	6.76	0.02
	mating strategy	308.07	8.67	0.01

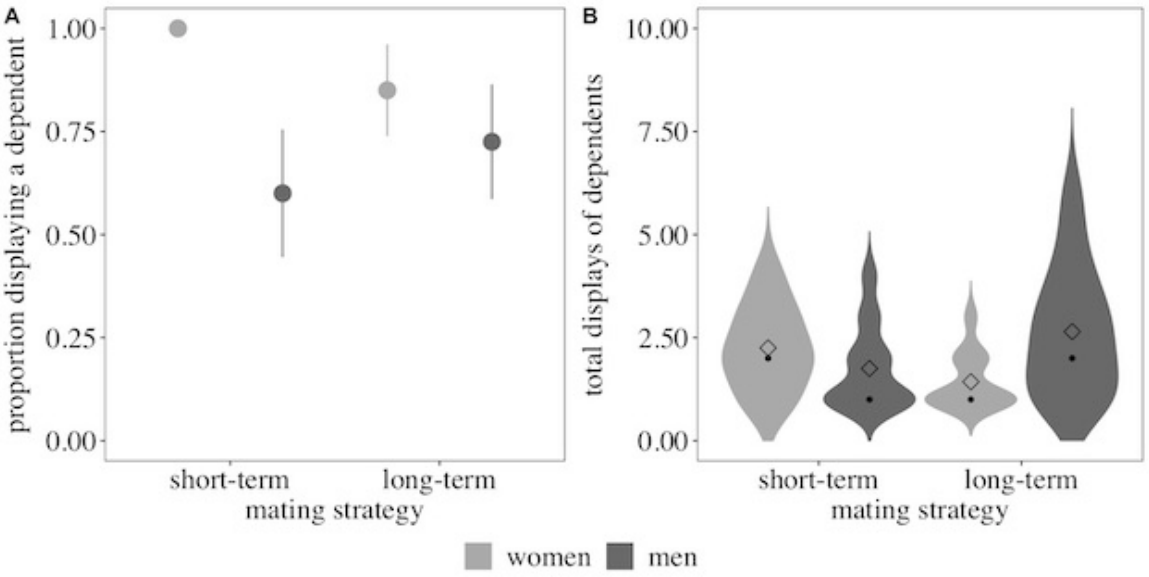

Figure A3. Influence of dater's (NS2) sex and mating strategy on displays of dependents on POF profiles. A) Comparison of proportion of daters displaying dependents on their profile; vertical lines indicate 95% confidence interval; B) Comparison of daters who displayed a dependent regarding the frequency of displays; plot thickness proportional to density of corresponding y-values, diamond indicates mean, dot indicates median.

Table A6. Model comparison of the effects of sex and mating strategy, as well as their additive ("+") and interactive ("×") effects on whether or not daters (NS2) displayed different dependents, and the number of such displays on their dating profile of daters who displayed any. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the best AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. Best model(s) differ from others by ΔAIC_C of 2 or greater and are bolded.

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
children				
proportion displaying	**(intercept)**	**136.51**	**0.00**	**0.45**
	mating strategy	138.53	2.02	0.17
	sex	138.53	2.02	0.17
	mating strategy × sex	138.60	2.09	0.16
	mating strategy + sex	140.53	4.02	0.50
total displays	**mating strategy**	**168.93**	**0.00**	**0.36**
	mating strategy × sex	**169.42**	**0.49**	**0.28**
	mating strategy + sex	**169.92**	**0.99**	**0.22**
	sex	171.87	2.94	0.08
	(intercept)	172.60	3.67	0.06

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
canines				
proportion displaying	**(intercept)**	**169.21**	**0.00**	**0.28**
	mating strategy	**169.72**	**0.51**	**0.22**
	mating strategy + sex	**170.00**	**0.79**	**0.19**
	mating strategy × sex	**170.28**	**1.07**	**0.17**
	sex	**170.54**	**1.33**	**0.14**
total displays	**mating strategy + sex**	**231.79**	**0.00**	**0.58**
	mating strategy × sex	**232.45**	**0.66**	**0.42**
	mating strategy	243.15	11.36	0.00
	sex	249.22	17.43	0.00
	(intercept)	254.52	22.73	0.00
non-canines				
proportion displaying	**sex**	**166.26**	**0.00**	**0.65**
	mating strategy + sex	**168.14**	**1.88**	**0.26**
	mating strategy × sex	170.25	3.99	0.09
	(intercept)	175.68	9.42	0.00
	mating strategy	177.26	11.00	0.00
total displays	**(intercept)**	**227.84**	**0.00**	**0.52**
	mating strategy	**229.78**	**1.94**	**0.20**
	sex	229.92	2.08	0.19
	mating strategy + sex	231.91	4.07	0.07
	mating strategy × sex	234.01	6.17	0.02

Note: Table A6 continued.

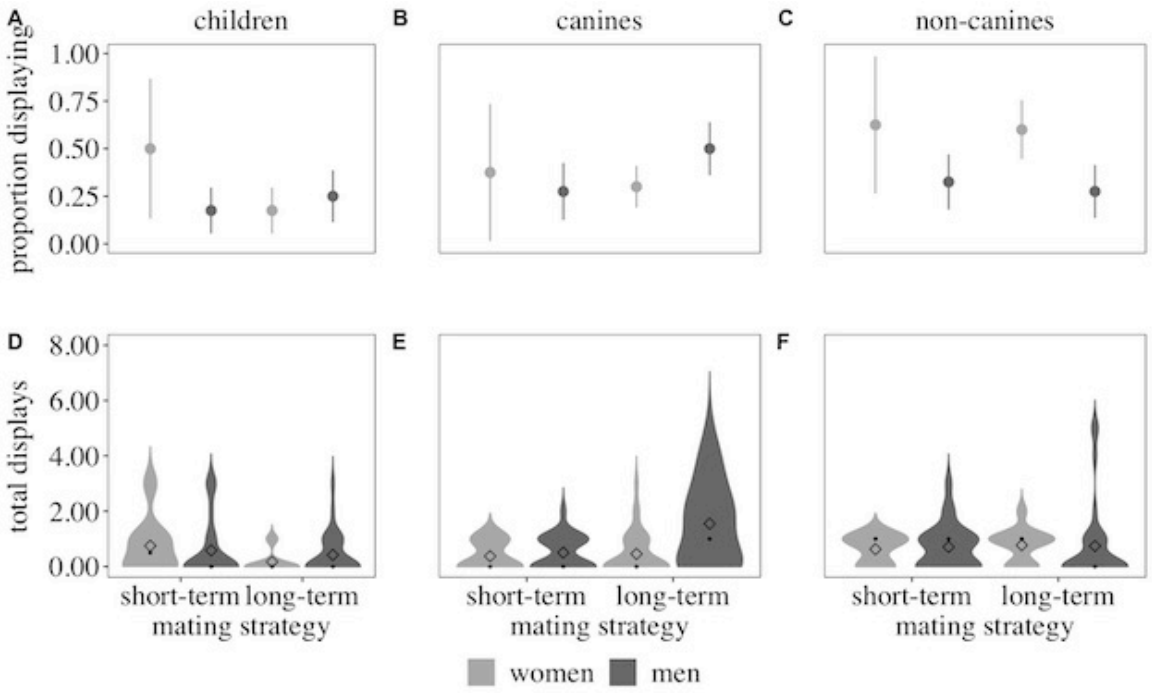

Figure A4. Influence of dater's (NS2) sex and mating strategy on displays of different dependents on POF profiles. A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

7.3 OT

Table A7. Summary statistics for the variables in this study (OT: $N = 127$).

sex/mating strategy	displays of dependents							
	children		canines		felines		other pets	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
men								
short-term	0.28	0.18	0.5	0.64	0.25	0.49	0.75	0.27
long-term	0.78	0.64	0.73	1.22	0.18	0.50	0.03	0.16
women								
short-term	0.57	0.98	0.28	0.49	0.00	0.00	0.14	0.38
long-term	0.50	1.11	0.8	1.36	0.45	0.81	0.08	0.27

Note: includes all daters, not just those who displayed a dependent.

Table A8. Model comparison of the effects of sex and mating strategy, as well as their additive ("+") and interactive ("×") effects on whether or not daters (OT) displayed dependents, and the number of such displays on their dating profile of daters who displayed one. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to the lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. Best model(s) differ from others by ΔAIC_C of 2 or greater and are bolded.

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
proportion displaying	**(intercept)**	**177.45**	**0.00**	**0.33**
	sex	**177.51**	**0.06**	**0.32**
	mating strategy + sex	**178.86**	**1.41**	**0.16**
	mating strategy	**179.42**	**1.97**	**0.13**
	mating strategy × sex	180.95	3.50	0.06
total displays	**mating strategy**	**216.16**	**0.00**	**0.47**
	mating strategy × sex	**217.86**	**1.70**	**0.20**
	mating strategy + sex	218.35	2.19	0.16
	(intercept)	219.41	2.85	0.11
	sex	220.41	4.25	0.06

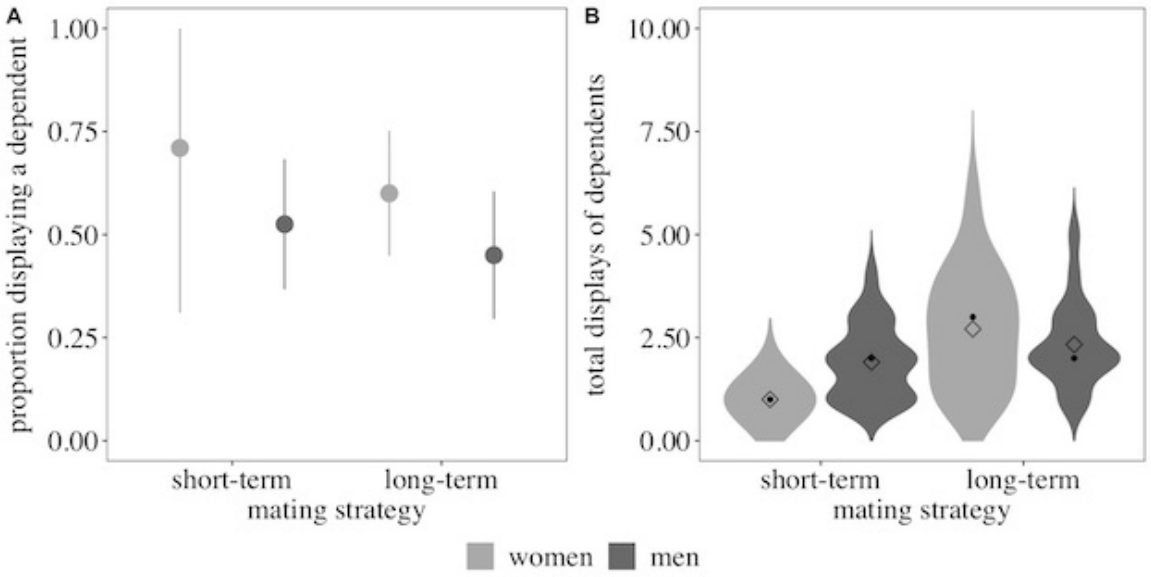

Figure A5. Influence of dater's (OT) sex and mating strategy on displays of dependents on POF profiles. A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency of displays; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.

Table A9. Model comparison of the effects of sex and mating strategy, as well as their additive ("+") and interactive ("×") effects on whether or not daters (OT) displayed different dependents, and the number of such displays on their dating profile of daters who displayed any. AIC_C is the Akaike information criterion value, ΔAIC_C is the change in relation to lowest AIC_C, ω_{AICC} is the relative predictive power of each model compared to all other models. Best model(s) differ from others by ΔAIC_C of 2 or greater and are bolded.

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
children				
proportion displaying	**(intercept)**	**102.02**	**0.00**	**0.37**
	sex	**103.26**	**1.24**	**0.20**
	mating strategy	**103.26**	**1.24**	**0.20**
	mating strategy + sex	**103.52**	**1.50**	**0.17**
	mating strategy × sex	105.65	3.63	0.06
total displays	**sex**	**165.44**	**0.00**	**0.46**
	(intercept)	**166.87**	**1.43**	**0.23**
	mating strategy + sex	167.46	2.02	0.17
	mating strategy	168.88	3.44	0.08
	mating strategy × sex	169.50	4.06	0.06

dependents	model	AIC_C	ΔAIC_C	ω_{AICC}
canines				
proportion displaying	**(intercept)**	**169.42**	**0.00**	**0.50**
	mating strategy	**171.11**	**1.69**	**0.21**
	sex	171.46	2.04	0.18
	mating strategy + sex	173.20	3.78	0.08
	mating strategy × sex	174.62	5.20	0.03
total displays	**mating strategy**	**199.23**	**0.00**	**0.43**
	mating strategy + sex	**200.01**	**0.78**	**0.29**
	mating strategy × sex	201.40	2.17	0.15
	(intercept)	202.20	2.97	0.10
	sex	204.23	5.00	0.03
non-canines				
proportion displaying	**(intercept)**	**147.55**	**0.00**	**0.38**
	sex	**148.27**	**0.72**	**0.27**
	mating strategy	149.60	2.05	0.14
	mating strategy × sex	150.02	2.47	0.11
	mating strategy + sex	150.24	2.69	0.10
total displays	**(intercept)**	**142.96**	**0.00**	**0.34**
	sex	**143.82**	**0.86**	**0.22**
	mating strategy	**143.88**	**0.92**	**0.21**
	mating strategy × sex	**144.85**	**1.89**	**0.13**
	mating strategy + sex	145.48	2.52	0.10

Note: Table A8 continued

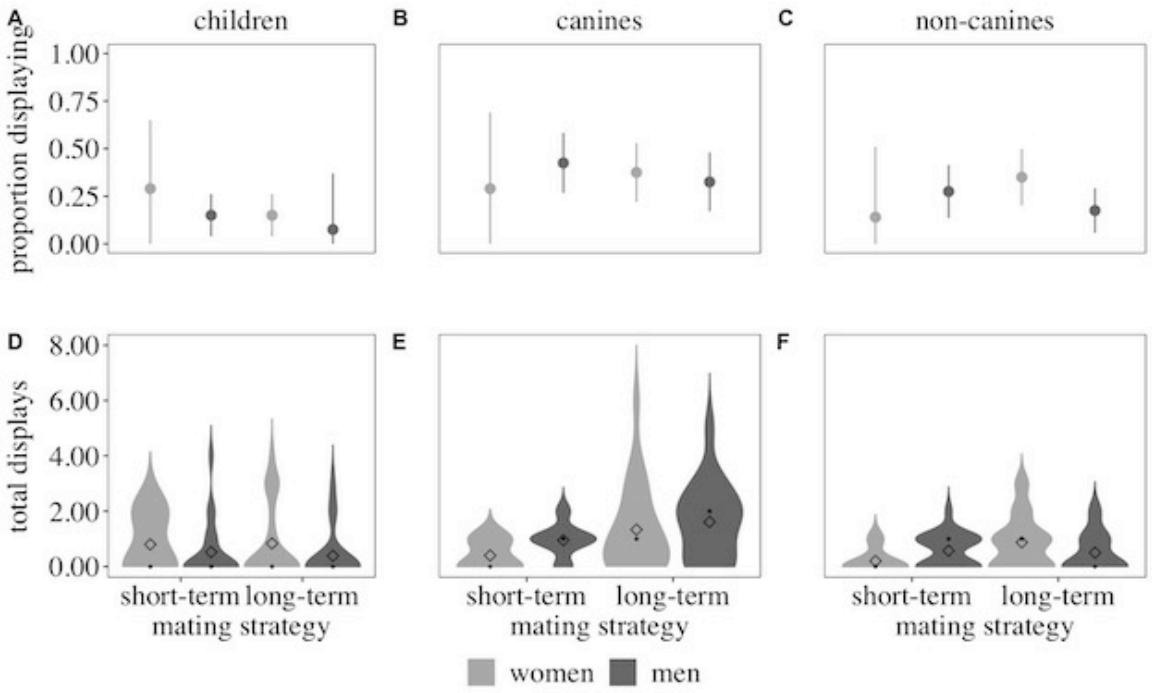

Figure A6. Influence of dater's (OT) sex and mating strategy on displays of different dependents on POF profiles. A-C) Comparison of proportion of daters displaying different dependents on their profile; vertical lines denote 95% confidence interval; D-F) Comparison of daters who displayed a dependent regarding the frequency different dependents were displayed; plot thickness proportional to density of corresponding y-values, diamonds denote mean, dots denote median.