

Life History Strategy and Assortative Pairing in an Online Dating Setting

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### Abstract

How do people choose someone to form an intimate sexual relationship with? Is it the case that ‘birds of a feather flock together’, or is it rather that ‘opposites attract’? Interest in individuals mate preferences and pairing behaviours has long been a topic of interest in psychological research. This study approaches the subject using the evolutionary theory of Life History (LHT), which proposes that individuals who come from relatively unstable and unpredictable environments would develop certain life history strategies that are markedly different from individuals who come from relatively stable, predictable environments. These differing life history strategies influence how people sexually pair up. Assortative pairing is a term denoting the trend for individuals to choose social and sexual partners who possess similar traits to one’s own. Previous literature using LHT to assess assortative pairing have proposed and found evidence for the hypothesis that slow life history individuals assortatively pair with sexual partners more strongly than fast life history individuals. However these studies have relied almost exclusively on survey designs and self-report instruments. Through the use of a mixed ANOVA quasi-experimental design, using a controlled online dating setting, this study attempted to provide casual validity for the above hypothesis. 64 university students were matched with one another according to their life history strategy and after the date reported their interest in their match. No significant results were found for the above hypothesis, however evidence was found that showed a person’s mating effort and gender played a large role in the level of interest reported for one’s partner ( $r = .391$ ).

*Keywords:* life history theory; assortative pairing; online dating; sexual strategies

## Life History Strategy and Assortative Pairing in an Online Dating Setting

How do people choose someone to form an intimate sexual relationship with? Is it the case that ‘birds of a feather flock together’, or is it rather that ‘opposites attract’? Why do some people choose to settle down and mate with one person over their lifetime while others choose multiple sexual partners and never truly settle down? A person’s ‘mate preference’ has always been an interesting topic of psychological research. Indeed many theories have been put forward as to why people choose monogamy, polygamy or general promiscuity as their relationship ‘strategy’ and what characteristics people look for in a potential mate.

This study looked at how an evolutionary perspective can add to the literature on mate preferences in individuals. More specifically, it will examine how the evolutionary theory of Life History Theory (LHT) has contributed to our understanding of mate preference and how individuals ‘life history strategies’ can be used to explain and predict an individual’s mate preference. Indeed does the evolutionary psychology hypothesis that a person’s life history strategy (LHS) plays a major role in their choice of mates hold true in contemporary times and can one use it to predict mate preference in individuals?

### **Life History Theory**

Evolutionary theory posits that the evolution of life is marked by an organisms need to compete for natural resources which provide energy for the organism to use for survival and reproductive ends. Energy is ‘captured’ (via hunting, foraging or farming) and then ‘allocated’ to activities of survival and reproduction (Kaplan & Gangestad, 2005). Organisms are required to make adaptive choices also known as ‘trade-offs’ regarding how they allocate their limited resources of time and energy. Investment in ‘somatic effort’, allocating resources to the bettering of individual (nurturing skills like education or friendship networks) are made at the expense of investment into reproductive efforts (Kaplan & Gangestad, 2005).

‘Reproductive effort’ refers to investing resources into reproducing and can be divided into ‘mating effort’ (favouring the quantity of progeny) and parental effort (favouring the quality of progeny) (Brumbach, Figueredo & Ellis, 2009). Mating effort denotes the

amount of time and resources one spends on finding, courting and keeping a potential partner (Figueredo et al., 2005). Note that while these different ‘efforts’ are not mutually exclusive, because of limited resources pursuing one generally impedes pursuing the other. Furthermore an organism can shift between strategies over a life time depending on the evolutionary pressures it faces (Dunkel, Mathes & Decker, 2010).

The evolutionary selective pressure for which strategy an organism adopts is based on the environment that organism finds itself in. Unstable (due to predation, erratic food sources or erratic climate fluctuations), uncontrollable environments, where extrinsic sources of mortality are high, pressure organisms into using a fast life history strategy (Quinlan, 2010). Extrinsic mortality refers to the risk of death that is not contingent upon an organism’s behaviour, like age-specific risks of death that are unavoidable no matter what behaviours an organism chooses to adopt (Quinlan, 2010).

Conversely intrinsic mortality refers to the likelihood of death in relation to how an organism allocates its reproductive and somatic effort (Quinlan, 2010). Hence in environments with high extrinsic sources of mortality, the organism has less control over its survival than in environments with high intrinsic mortality. Organisms in high extrinsic mortality environments should reproduce as early in life as possible and have as many offspring as possible to ensure more of their genetic material is passed on (as many of their offspring will die irrelevant of the effort the organism puts towards their development) (Figueredo & Wolf, 2009).

As stated, unstable, uncontrollable environments with high extrinsic mortality selectively pressure organisms to adopt a fast life history strategy (FLHS). This is because those organisms that adopt a slow life history strategy (SLHS) and focus resources on somatic and parental efforts, have a far greater chance of themselves and their offspring not living long enough to benefit from those activities. Seen as ‘wasting’ resources, they lower the presence of their genetic material and the phenotypic traits that accompany it, in subsequent generations (Brumbach, Figueredo & Ellis, 2009).

To clarify, an organism’s genotype refers to its entire genetic and hereditary information, while its phenotype is the expression and manifestation of this information in observable characteristics (like behaviour or morphology). For example, identical twins may have the same genotype (identical genes) but their phenotypes will always differ (which is why parents can tell them apart).

In summation, natural selection will favour those organisms that favour certain life history strategies in the appropriate environments and in turn favour the behaviours associated with those strategies. Thus organisms that adopt appropriate life history strategies shall survive and proliferate their genes and associated behaviours, while the rest will die out. As organisms only have a limited amount of energy to work with, the strategies they employ shall determine their success or failure in their species evolution.

### **Life history strategy**

A fast life history strategist favours reproductive effort over somatic effort and specifically mating effort over parental effort. Organisms that adopt a fast life history strategy usually experience accelerated physical and sexual development (earlier sexual maturation) which corresponds with the idea of producing as many children as soon as possible (Dunkel, Mathes & Decker, 2010). They are also associated with short-term relationships and lower parental investment (Brumbach, Figueredo & Ellis, 2009). This is because in the above mentioned unstable environments, these strategies provide the greatest chance of proliferation of their genes to subsequent generations.

A slow life history strategist, on the other hand, is favoured in stable, controllable environments, with high intrinsic mortality (Stearns, 1992). They are associated with favouring somatic effort over reproductive effort and parental effort over mating effort. Organisms that adopt a slow life history strategy are usually more likely to engage in long term relationships, especially favouring them over short term relationships that require a high level of mating effort. They are also seen to invest more heavily in relationships (of both a sexual and social kind) and have longer life spans (Brumbach, Figueredo & Ellis, 2009).

One can see now how an organism's LHS is determined by a set of behavioural and biological traits that are influenced by the organism's environment and natural selection. Additionally an organism's LHS can be used to predict certain rates of reproduction, development, parental investment and mate preference. So far in this explanation of LHT I have exclusively referred to organisms but as humans are themselves organisms, LHT is also applicable to humans.

### **Gender differences in sexual strategies**

When assessing peoples partner preferences and pairing practices it is necessary to address the sexual strategies that one might employ. An abundance of literature exists

regarding the different sexual strategies employed by males and females. Sexual strategies theory, formulated by Buss and Schmitt (1993), propose that sex differences in mating strategy have evolved over time to serve reproductive goals.

Parental investment theory proposes that a genetic conflict of interests exist between males and females (Trivers, 1972). Female's reproduction is limited by the higher physiological investment that exists in pregnancy and child birth. Females have to carry a child for 9 months, during which they require increased resources like food and protection and are less able to engage in physically strenuous behaviours. If these physiological demands can't be met, they can't reproduce and subsequently pass their genes on, thus limiting their genetic representation in latter generations (Trivers, 1972).

Males however do not have to deal with any of these above physiological demands related to carrying a child. A male's reproduction is rather limited by their access to fertile females (Trivers, 1972). Of course, to varying degrees, they still might have an interest in their offspring and specifically their mate which is carrying their child, so as to ensure their genes are passed on, but the underlying physiological costs in the initial production of offspring is far less (Schmitt, Shackelford & Buss, 2001).

Such reproductive constraints have meant differing sexual strategies for males and females have evolved over time (Schmitt et al., 2010). Specifically related to this study, males show greater favour for employing short-term mating strategies than females (Schmitt, Shackelford & Buss, 2001). In general, males are more willing to engage in short term mating, favour multiply sexual partners, consent to sex far quicker and are less choosy regarding partners than females.

Females on the other hand are more discriminating with regards to sexual partners. They invest more time and effort in assessing a male's capacity to raise offspring and invest in a family (Trivers, 1972). Hence females in general show greater preference regarding things such as the male's social status and his ability to generate and willingness to share resources with them and their potential offspring (Wilbur & Campbell, 2010). They also place greater emphasis on long-term mating strategies, favour fewer sexual partners and take longer to consent to sex than males (Schmitt et al., 2010).

There is an abundance of literature which supports this differentiation in the sexual strategies employed by males and females. A massive cross-cultural study conducted by

Schmitt, (2003) surveyed 16,288 people from 52 nations spread across 6 continents and found evidence for culturally universal sex differences regarding sexual strategy. Their study showed that males report having a greater desire for numerous partners and favour short-term mating strategies.

In 1993, Oliver and Hyde published a meta-analytic paper which reviewed 177 studies of sex differences in psychology literature. They found that male's preference for short-term mating and females for long-term mating was one of the most apparent and consistent differences between the sexes (Oliver & Hyde, 1993).

Note, evolutionary psychological adaptations for short term mating have evolved in both men and women and while women also show a desire for short-term mating, and can reproductively benefit from short-term mating behaviour, these benefits are more aligned to addressing and compensating for female's reproductive costs (Greiling & Buss, 2000). For example, short-term mating behaviour can greatly assist in evaluating partners, something they place greater emphasis on than males (Greiling & Buss, 2000). However from an evolutionary standpoint, males tend to see greater reproductive benefits from engaging in short-term mating.

For example, in one year, a single male can impregnate 100 women and potentially have 100 offspring, while a single female can mate with 100 males, but still only produce a single offspring. An evolutionary 'selective pressure' exists for men to be more promiscuous and seek out multiply partners, as they can potentially pass on more of their genes to subsequent generations (Schmitt et al., 2010).

### **Assortative mating and Life History Theory**

Assortative mating is a term that refers to when someone chooses to mate with someone else with similar traits (positive assortative mating) or different traits (negative assortative mating) (Miller, 2000). Assortative mating is thus one way of describing mate preference. Assortative pairing is simply a broader term used with regards to people's preferences in choosing friends and sexual partners with similar traits to their own. As different life history strategies place different emphasis on the number of offspring and amount of parental investment they favour, so too do different life history strategies place emphasis on the type of assortative mating (and assortative pairing) that occurs (Figueredo &

Wolf, 2009). Proponents of LHT provide evidence for this by observing the phenomena of sexual reproduction (e.g., Maynard Smith, 1978; Buss, 2006).

One of the great mysteries of evolutionary biology is why sexual reproduction evolved in a great many organisms despite the apparent costs of reproducing (Hamilton, Axelrod & Tanese, 1990). Reproducing asexually means 100% of your genetic makeup is passed down to one's offspring, while reproducing sexually only guarantees half of one's genetic makeup to be passed down to the next generation. Additionally sexual recombination of genetic material also means a potential higher frequency of deleterious (maladaptive) mutations (a mutation is when a DNA gene is changed in such a way that the genetic message it carries is altered) that might occur in an organism's genetic material (Figueredo & Wolf, 2009).

Evolutionary biologists hypothesize that because people live in communities, individuals in these communities are usually related to one another by some degree of genetic similarity (Hiorns, Harrison, Boyce & Kuchemann, 1969). Sexual reproduction within these communities thus entails mating with people with whom share similar traits and genetic material and thus one actually ensure more than 50% of their genetic material is passed to subsequent generations. They refer to this as a form of endogamy, the practice of marrying within a specific group (e.g., ethnic, religious, cultural) (Kalmiji, 1998). Conversely exogamy occurs when one mates outside of a specific group one is in. Endogamy is related to positive assortative pairing practices while exogamy is related to negative assortative pairing practices (Figueredo & Wolf, 2009).

Unstable environments require an organism to adapt more quickly and because of this the genetic recombination provided by sexual reproduction actually serves as an advantage (Figueredo & Wolf, 2009). This is because the higher frequency of mating that occurs in these environments increases the amount of mutations in the overall population's genetic material, which offers the potential of new advantageous mutations to exist. These new mutations might be better suited to the new environmental conditions and should be passed on if they do indeed provide an advantage (Roff, 2002). The same conditions and evolutionary pressures that favour a fast LHS thus also favour exogamy.

In stable environments, which favour a slow LHS, endogamy is common because the genes involved in these environments are already adapted to it and wouldn't necessarily benefit from the increase in mutations (Ellis, Figueredo, Brumbach, Schlomer, 2009). Hence



a fast life history strategist should favour negative assortative mating (and thus negative assortative pairing) while a slow life history strategist should favour positive assortative mating (and thus positive assortative pairing) (Figueredo & Wolf, 2009).

A person's 'mate value' corresponds to their level of sexual attractiveness and denotes specific traits related to one's reproductive and somatic fitness which are as varied as socioeconomic status, levels of empathy, good hair and symmetrical facial features (Buss & Schmitt, 1993). They are all said to be signs of the level of deleterious material the individual's genetic load contains (Miller, 2000). It is posited that if traits associated with mate value serve as indicators of deleterious mutation loads, those traits would serve as a signal for how much (positive) assortative pairing is genetically safe for maintaining genetic quality in one's offspring (Figueredo & Wolf, 2009). Hence the same conditions that favour adoption of a slow LHS and endogamy, should also favour the evolution for a preference to choose mates that reliably exhibit these above mentioned indicators of one's genetic fitness. (Figueredo & Wolf, 2009).

It follows that slow life history strategists would pay more attention to fitness indicators than fast life history strategists and place a greater emphasis on mate value. However because of the reasons discussed above, fast life history strategists wouldn't need to pay as much attention to fitness indicators, despite the apparent usefulness of finding a mate with a reduced mutation load, because deleterious (maladaptive) mutations could prove useful to them in their unstable environments (Figueredo & Wolf, 2009).

### **Summary and Rationale for the Present Study**

For the above reasons, slow life history strategists should show preference for 'positive assortative pairing', while fast life history strategists should show a preference for 'negative assortative pairing'. To date only one study has been carried out which tests the hypothesis that slow life history strategists assortatively mate more strongly than fast life history strategists. Figueredo and Wolf (2009) used preliminary data from a cross-cultural study on assortative pairing and found that slow life history strategists do in fact assortatively pair with sexual partners more strongly than fast life history strategists. However this study was conducted using survey measures and looked at the correlations of different life history strategies to levels of assortative pairing. While the study provides evidence for the hypothesis that LHS can predict assortative pairing preferences, it lacks the casual validity that an experimental study can provide.

By matching people according to their LHS and then seeing whether they choose partners with similar or different characteristics (assessed in relation to personality traits, mating effort and mate value), one can provide more causal evidence for the hypothesis that LHS can be a predictor of mate preferences. Additionally, by measuring people's mating effort, mate value and personality traits, this study attempted to assess to what degree these variables play a role in people's sexual pairing.

Using the online platform of a chat room and matching people accordingly, this study attempted to test the hypothesis of slow life history strategists' preference for assortative pairing within a short-term, 'first date' (first impression) context.

### **Specific Aims and Hypothesis**

The aim of the study was to provide causal evidence for the hypotheses:

1. Individuals who employ a slow life history strategy should show preference for (positive) assortative pairing.

This was done by looking at whether participants matched with similar or different life history strategies, showed greater interest in participants with similar or differing life history strategies.

### **Methods**

#### **Design and Setting**

The study used a quasi-experimental, mixed 2x2 factorial design. Participants were matched according to their life history strategies, therefore the predictor (independent) variable of life history strategy was used as both a within-subject and between subject variable. The 2 outcome (dependent) variables were a person's score on a mate interest questionnaire (descriptive variable) and the time they spent interacting after the experiment's session officially ended (behavioural variable). Mate value, mate effort and personality traits were to be used to help assess the degree of assortative pairing and potential predict the outcome variables.

The study consisted of two phases. The initial screening phase used the online survey platform *Survey Monkey* ([www.surveymonkey.com](http://www.surveymonkey.com)), during which participants completed 5 separate questionnaires; a socio-demographic questionnaire, the Mini-K Short Form, the

Mate Value Inventory, the Mate Effort Scale and the Ten- Item Personality Inventory. Participants were matched using their Mini-K Short Form score (predictor variable). After this was done, the second phase commenced, during which matched participants engaged with one another in an online chat room. This online phase consisted of two separate chat sessions, each being officially 15 minutes in length, but left open after the 15 minutes had passed, to see whether participants wanted to continue chatting. The chat room setting was provided by the online chat room platform *Chatzy* ([www.chatzy.com](http://www.chatzy.com)), which is supported by mobile phones, iPads and desktop computers. As the experimenter's presence was required to monitor the chat for ethical reasons, no more than two chats were run simultaneously.

### **Participants**

Matched sampling was employed, drawn from a sampling frame that consisted of 2014, UCT undergraduate psychology students. The sample was drawn using the university's SRPP program that requires students to participate in psychological research projects as a pre-requisite for completing certain courses. 64 participants were used for the study. The sample was screened according to the following eligibility criteria before being matched for the chat room phase.

**Inclusion criteria.** Inclusion criteria were male and female undergraduate students who self-identified on the socio-demographic survey as: heterosexual, between 18 and 27 years of age and presently not in a relationship. Exclusion criteria were anything differing from the above relationship status, sexual orientation and age group as well as the submission of any incomplete questionnaires. Additionally participants who did not complete the participation and ethical considerations form, elaborated on momentarily, were excluded from the sample obtained during the first phase of the study.

### **Measures and Instruments**

**Mini-K Short Form.** As previously mentioned, the predictor and a matching variable for the design was an individual's life history strategy, which was obtained from the measuring instrument of the Mini-K Short Form (MKSF) (see Appendix C). The Mini-K Short Form was designed by theorists who identified a common factor that was associated with a variety of life history traits (attitudes and behaviours) (Figueredo et al., 2006). While the Mini-K Short Form was used as it was designed, the scores for two items were removed from a participants mini-K score as they were not relevant to the study; "I have a close and

warm relationship with my own children” and “I have a close and warm romantic relationship with my sexual partner.”

The Form is a component of the Arizona Life History Battery (ALHB), a battery of self-report psychometric indicators of an individual’s life history strategy. The Mini-K Short Form shows a correlation of 0.77 with the full ALHB and is a 20-item instrument that consist of survey questions which use a seven point Likert scale. Responses to each question can range from -3 (strongly disagree) to +3 (strongly agree) were a response of 0 indicates ‘not applicable’ or ‘don’t know’. Hence with 20 items, possible scores range from -60 to 60. The Mini-K scale is scored directionally along the LHS fast-slow (r/K) continuum, whereby a high score (60) indicates an extremely slow life history strategy and a low score (-60) indicates an extremely fast life history strategy. The internal consistency of the MKSF seems strong with alpha values of .77. The MKSF also correlates highly with other measures of LHS and has been shown to be reliable (Figueredo et al., 2011).

**Socio-demographic questionnaire.** This questionnaire asks participants to provide basic demographic information (e.g., sexual orientation, age, sex, relationship status), to facilitate the screening and matching procedures see (Appendix B).

**Mate Value Inventory.** A participant’s mate value shall be measured using the Mate Value Inventory (MVI) (see Appendix D). The MVI is a 22-item, self-report questionnaire that measures an individual’s self-perceived rating on 22 traits considered important in mate attraction (e.g., attractive face, good sense of humour, faithful to partner, financially secure). The MVI uses a seven-point Likert scale which ranges from -3 (extremely low on the particular trait) to +3 (extremely high on the particular trait), were a score of 0 indicates ‘don’t care’ or ‘average on this characteristic’. Literature from evolutionary and social psychology on mate value was used to produce this list of traits and studies have shown it to have high internal validity and reliability (Kirsner, Figueredo & Jacobs 2003).

**Mate Effort Scale.** An individual’s mating effort is measured using the Mate Effort Scale (MES) (see Appendix E). The MES is a 10-item, self-report questionnaire that measures an individual’s level of effort they are willing to put into attracting and retaining a mate. The MES uses a five-point Likert scale which ranges from 1 (strongly disagree) to 5 (strongly agree). While the MES has not been used as frequently as the previously above mentioned MVI and Mini-K form, it was constructed with LHT and mate value measures in mind and proved an adequate account for mating effort in the study (Rowe, Vazsonyi &

Figueredo, 1997). This assessment measure has been shown to have high reliability and strong validity (Rowe, Vazsonyi & Figueredo, 1997).

**Ten-Item Personality Inventory.** The Ten-Item Personality Inventory (TIPI) was developed by to serve as a brief yet effective measure of the Big-Five personality dimensions (Gosling, Rentfrow & Swann, 2003) (See Appendix F). Having been proved as reliable and accurate, it is intended to be used when personality isn't the primary topic of interest or when a short measure of personality is needed. The TIPI is a 10-item, self-report questionnaire uses a seven-point Likert scale which ranges from 1 (strongly disagree) to 7 (strongly agree) with 0 indicating a response of 'neither agree nor disagree'.

**Interest questionnaire.** The Interest questionnaire was created for the purpose of this study to assess a participant's interest in the matched participant (see Appendix A). It used a seven-point Likert scale which ranges from -3 (strongly disagree) to +3 (strongly agree). It contains 11-items and consists of statements like; 'I would like to chat to this person for again' or 'I would like to kiss this person'.

## **Procedure**

**Phase one: Screening.** Targeting all undergraduate psychology students enrolled in the SRPP program, an announcement was placed on UCT's official student website 'vula' ([www.vula.uct.co.za](http://www.vula.uct.co.za)), informing students of the procedures of the study. Students were invited to participate in the study and a hyperlink was provided to take them directly to the webpage hosting the screening questionnaires. An informed consent form was first need to be completed before students could proceed to the screening phase of the study (see Appendix H).

The screening phase consisted of the socio-demographic questionnaire, the MVI, the MES and the TIPI questionnaires. Participants were asked to enter their contact details if they are willing to participate in the second phase of the study. From the socio-demographic information obtained, and with satisfactory completion of all the above forms, participants were included or excluded based on the criteria listed in the participant section of this study. Participants were then matched according to their gender and Mini-K scores before the second phase commenced.

**Phase two: Chat room.** Eligible participants were contacted via email. This email informed them of the possible chat sessions available, the need to participate in two sessions.

It also informed them of the minimum length of each of the sessions (15 minutes). They are again informed of their required ethical and satisfactory participation (e.g., active participation, maintaining anonymity) requirements.

Separate, private chat rooms were assigned to each matched couple along with a unique Chatzey account. The account names and detailed instructions on how to access and log into the chat room was emailed to the participants before the time of the chat.

I was present in each chat session to ensure the ethical and participatory requirements were met and only would have intervened (e.g., by blocking a user or by deleting content) if they are compromised. This did not occur.

After each chat session had ended the participants involved were required to fill out the interest questionnaire. All chat sessions were run in the evenings. Participants were awarded their SRPP points for participation and an email was sent thanking them and disclosing the full aims and nature of the study.

### **Ethical considerations**

This study was granted ethical approval by the Research Ethics Committee of the University of Cape Town's Department of Psychology.

**Confidentiality and consent.** Participants were required to sign a consent form which stipulated the ethical and participatory requirements they had to adhere to (see Appendix H). In the consent form it was made clear that this is completely voluntary study and they may withdraw from it at any time, with no penalty. Additionally all socio-demographic information they provide has been kept completely confidential. They were also informed that anonymity must be upheld throughout their time spent in the chat rooms, even after the official 15 minutes were over.

Participants were expected to practice good behaviour when in the chat room. The consent form made it clear that they may not threaten, provoke, verbally abuse, bully or behave in any way that may be deemed as inappropriate or harmful to the other participant. They were also informed that while a researcher will immediately block any participant that doesn't adhere to these behavioural requirements and that at any stage they may log out if they feel the other participant isn't adhering, the risk of such behaviour shall be present. Note these risks are no different to the risks participants would face in any online dating scenario.

**Debriefing.** Participants were informed in the consent form that if they feel they have suffered any negative effects from the study, they must contact the researcher immediately, who will put them in contact with a counselling service. After the study was completed, participants who completed either phase of the study received an email explaining what the study was about offering them the above mentioned help if any negative effects were felt.

### **Data Management and Statistical Analysis**

All statistical analyses were conducted using SPSS version 22 (SPP, 2013). Alpha was set to a level of .05 for all decisions determining statistical significance. All negatively-keyed items were reverse scored. A mixed design analysis of variance was conducted to assess the matching of life history strategies. The predictor variable of LHS was used as both a within-subject and between subject variable. Chat duration and interest scores obtained from the post chat interest survey were used as the dependant variables. 3 regression analyses were performed with gender and mating effort as predictor variables and chat duration and adjusted interest scores as dependant variables. The mean of the two interest scores reported for both matchups was used as the adjusted interest score.

## **Results**

### **Sample Characteristics**

270 UCT undergraduate psychology students participated in the screening phase of the study. 64 participants, 30 male and 34 female, participated in at least one of the matchups in phase 2 (online date) of the study. 56 matches were run with 26 males and 22 females participating in both matchups. Sampling limitations, specifically the limited number of male participants and a high participant dropout rate, meant uneven life history strategy group matchup's occurred. 19 fast-fast, 8 slow-slow and 29 fast-slow matchups were run. The participants were aged between 18 and 27 years ( $M = 20.78$ ,  $SD = 1.70$ ).

### **Matching Specifics**

The Mini-K scores of 64 participants from the first phase of the study were used to divide all participants into fast and slow life history strategy groups. The median of 29.5 was used to assign participants scoring 29 or bellow to the fast LHS group and those scoring 30 and above to the slow LHS group.

Participants were matched according to which quartile their Mini-K score placed them in. For the first condition, participants were matched with someone with as similar Mini-K score to their own as possible (within their quartile). For the second condition, participants

were matched with someone with as different Mini-K score as possible (with scores in the first quartile being matched with the scores from the fourth quartile, and scores from the second quartile matched with scores from the third quartile). A mean value of 21 was found regarding the differences in Mini-K scores in matchups with participants of differing life history strategies.

### **Descriptive statistics for variables of interest**

The average chat length was 44 minutes and interest scores were on average negative ( $M=-2.70$ ,  $SD=13.87$ ).

Descriptive statistics for gender are listed in table 1. The data shows that overall higher interest scores were reported for males ( $M = 2.68$ ,  $SD = 13.93$ ) than females ( $M = -7.17$ ,  $SD = 12.92$ ).

Table 1  
*Participants: Descriptive statistics for Gender (N=64)*

Variable	<i>Minimum</i>	<i>Maximum</i>	<i>M</i>	<i>SD</i>
Female	-33	17	-7.17	12.92
Male	-31	28	2.68	13.93

### **Mixed designs ANOVA (GLM1)**

For both interest scores and chat duration, Levene's test for homogeneity of variance was statistically significant, and so the assumption of homogeneity of variance was upheld. Interest scores and chat duration times were normally distributed. However a slightly positive skewer for slow-slow matchups in the distribution of chat duration times was present. Uneven LHS groups were controlled for by assigning mean values to the missing cases.

The means and standard deviations for the first dependant variable, interest score, are shown in table 2.



Table 2

*Interest scores (N=64)*

Life History Strategy Matchup	LH Speed	<i>M</i>	<i>SD</i>	<i>N</i>
Slow match partner	Fast	3.48	13.90	37
Slow match partner	Slow	-0.92	12.91	27
Fast match partner	Fast	0.40	15.37	37
Fast match partner	Slow	-7.31	15.48	27

*Note.* *LH Speed* refers to the speed of the participant. *Life History Group Matchup* refers to the type of matchup the participant was in.

The data shows participants that employ a fast life history strategy, preferred slow life history strategists ( $M = 3.48$ ,  $SD=13.9$ ) to fast strategists ( $M = 0.04$ ,  $SD = 15.37$ ). Also, participants that employ a slow life history strategy, preferred slow life history strategists ( $M = -0.92$ ,  $SD = 12.91$ ) to fast strategists ( $M = -7.31$ ,  $SD = 15.48$ ). This data shows that both fast and slow life history strategists on average reported higher interest in slow life history strategists when compared with fast life history strategists.

Chat duration times were also calculated for the specific life history strategy matchup combinations. The means and standard deviations for these groups are shown in table 3. The data shows that for the slow-slow matches, participants on average spoke for the longest ( $M = 54.63$ ,  $SD = 13.65$ ). This group was followed by the fast-slow group, ( $M = 42.76$ ,  $SD = 27.43$ ). Finally the fast-fast matches spoke on average for the least amount of time, ( $M = 39.16$ ,  $SD = 16.67$ ).

Table 3

*Chat Durations for Life History Strategy Matchups in minutes (N=128)*

Life History Strategy Group Matchup	LH Speed	<i>M</i>	<i>SD</i>	<i>N</i>
Fast-Fast	Fast	39.16	16.67	38
Slow-Slow	Slow	54.63	13.65	16
Fast-Slow	Slow	42.76	27.43	58

*Note.* *LH Speed* refers to the speed of the participant. *Life History Group Matchup* refers to the type of matchup group the participant was in.

The results of the mixed design ANOVA indicate there wasn't a statistically significant between-subject effect (whether the participant was matched with a similar or

different LHS group),  $F(1,36) = 2.30$ ,  $p = 0.138$ ,  $\eta^2 = .06$ . There was not a statistically significant within-subject effect (regarding participants assigned LHS),  $F(1,36) = 2.66$ ,  $p = 0.112$ ,  $\eta^2 = .07$ . There also wasn't a statistically significant interaction effect between LHS groups and assigned LHS group matchups,  $F(1,36) = 0.33$ ,  $p = 0.573$ ,  $\eta^2 = .01$ .

A Pearson product-moment correlation analysis was used to determine whether there was an association between the predictor variables of Mini-K score, MVI, MES, TIPI and gender with the 2 outcome variables of chat duration and interest scores. The analysis showed that gender was negatively correlated with interest scores ( $r = -.347$ ,  $p < 0.001$ ) which is in alignment with the reported higher interest scores produced by males.

The correlation analysis also showed that MES was positively correlated with interest scores ( $r = .287$ ,  $p = 0.001$ ) and chat duration ( $r = .194$ ,  $p = 0.002$ ). Hence the higher a participants mate effort score, the higher their reported interest scores were and the longer they chatted for.

### **Hierarchical Multiple Regression Analyses (GLM 2)**

Based on mating effort and gender correlations with interest scores, a hierarchical regression analysis was run in order to determine whether mating effort and gender predicted interest scores. Mating effort was entered in first, based on literature which links mating effort with people's interest in choosing mates. Gender was entered in step 2. The resulting model was statistically significant,  $F(2,109) = 9.825$ ,  $p < 0.001$ . Regression coefficients are shown in table 4. MES explained 8% of the variance in interest scores according to the regression model,  $r^2 = 0.08$ . Overall the model accounts for 15.3% of the variance.

Table 4

*Regression coefficients (N = 64)*

Modeling Step / Predictor	B	$\beta$	t	p
Step 1				
Constant	2.518 (2.00)		1.26	.210
MES	.90 (0.29)	.287	3.14	.002**
Step 2				
Constant	12.945 (3.96)		3.27	.001**
MES	.603 (0.30)	.191	2.04	.044*
SEX	-8.014 (2.66)	-.282	2.04	.003**

*Note.*  $R^2 = .153$ . Adjusted  $R^2 = .137$ . Degrees of freedom were (1, 109) in each case.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

For both regression analyses assumptions were tested. In order to meet the assumptions of a multiply regression analysis, p-plots were observed and it was found that the assumption of normality was upheld. The Durbin-Watson statistic was higher than 1.0 for both analyses, suggesting that the variables in the analysis were sufficiently independent. Observations of tolerance and VIF statistics revealed that there was no multicollinearity present. Standardised residual plots showed that heteroscedasticity was also not present.

### **Hierarchical Multiple Regression Analyses (GLM 3).**

A final hierarchical multiply regression analysis was run in order to determine whether mating effort was a predictor of chat duration. Normality was upheld. The Durbin-Watson statistic was higher than 1.0 Results suggested that MES was a significant positive predictor of chat duration ( $F[1, 110] = 4.313$   $p = .04$ ).

Table 5

*Regression coefficients (N = 64)*

Modelling Step / Predictor	B	$\beta$	$t$	$p$
Step 1				
Constant	48.438 (3.30)		14.693	.000
MES	.99 (0.48)	.194	2.08	.040*

*Note.*  $R^2 = .038$ . Adjusted  $R^2 = .029$ . Degrees of freedom were (1, 109) in each case.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

### **Discussion**

This study attempted to test the hypothesis that slow life history strategists would assortatively pair more strongly than fast life history strategists. Additionally, by measuring people's mating effort, mate value and personality traits, the study attempted to assess to what degree these variables play a role in people's sexual pairing. The study was interested in assessing life history pairing within a short-term, 'first date' (first impression) context.

Based on participant's self-reported Mini-K scores, they were assigned to one of two LHS groups (fast or slow). They were then matched with two participants, one from the same LHS group (with a Mini-K score as similar to their own as possible) and one from the other LHS group (with a Mini-K score as different to their own as possible).

Assortative pairing was established by observing the above life history strategy pairings. The duration of the chat and reported interest scores of participants was used to assess the strength of the pairing. Specifically if a participant chatted for longer to someone of the same LHS group or of a different LHS group and whether they reported higher interest scores for someone of the same or different LHS group.

### **ANOVA analysis**

The results of the study do not support the hypothesis that slow life history strategists assortatively pair more strongly than fast life history strategists. The results of the mixed design ANOVA (GLM1) show there was not a statistically significant between-subject effect (whether the participant was matched with a similar or different LHS participant), within-subject effect (regarding participants assigned LHS) nor interaction effect (between LHS groups and assigned LHS group matchups).

When looking at the means of chat duration regarding the different LHS matchup combinations, we find that participants in slow-slow matchups spoke for the longest while participants in fast-fast matchups spoke for the least amount of time. This could be accounted for in light of the literature regarding the differences between fast and slow life history strategists' sexual strategies. As slow life history strategists show preference for long-term mating, they would be more inclined to take more time in assessing a potential partner than fast life history strategists would. They would be more invested in getting to know the person and take a longer time in deciding whether the potential partner was a suitable match for them.

A key trend that emerged from the data was how on average males reported far higher interest scores than females. Based on the items used to assess interest scores, we can interpret this trend as suggesting males were far more willing to engage in further interaction with their partners and more willing to be physical intimate than their female counterparts.

This trend of males being more willing to engage in physical intimacy after such short time periods of interaction is well documented in the literature on male short-term mating strategies.

A study conducted by Buss & Schmitt (1993) using a sample of 75 men and 73 women, assessed how long someone reported needing to know a person before consenting to sexual intercourse with them. They found that men reported higher probabilities of

consenting to sex for all the time durations (ranging for 5 minutes to 5 years) measured except at the 5 year mark, where both men and women reported similar probability levels.

Within the context of short-term mating, males also have far more relaxed criteria than females regarding partner preference (Buss & Schmitt, 1993). In light of the literature addressed in this paper surrounding male short-term mating strategy, one can see how it is possible males on average report much higher scores than females.

Additionally the lower female interest scores could also be explained in terms of general female sexual strategies regarding short-term mating. It could be the case that the time spent chatting was not sufficient for females to assess males mate value or sexual strategies. For example, females couldn't determine sufficiently well enough whether the person was promiscuous or what their level of social status was, thus being less inclined to report a higher interest score.

The fact that males, irrespective of their LHS, reported far higher interest scores also arguable could have skewed the data and potentially masked the effect of different LH strategy pairings.

### **Regression analyses**

Correlation analysis showed that of all our secondary predictor variables (mate value, mate effort, used to test the alternative hypotheses), only gender and mate effort scores were correlated with interest scores.

The negative correlation for gender can be partially explained for by the apparent greater likelihood of males to report higher interest than females. The positive correlation between mating effort scores and interest scores suggests that the higher one's mate effort score was the more interest one would report. Hence the more effort one employs in trying to find and retain a potential partner; the higher ones reported interest in potential partners.

Additionally, mating effort scores were positively correlated with chat durations. Hence the more mating effort one employs, the more time one's willing to give to finding a potential partner.

Based on these correlations, these two variables were used in a regression analysis to find out how much they predicated interest scores. Similarly mating effort scores were tested for their predictive power regarding the length of chat sessions.

Literature shows that mating effort plays an important role in choosing a potential partner. For this reason MES was entered into the regression model first, followed by gender in the second step. The model overall accounted for 15.3% of the variance in interest scores. The analysis showed that MES accounted for 8% of the variance while gender accounted for 7.3%. This showed that indeed MES and gender were predictors of IS scores.

Finally mating effort scores were entered into a regression model to predict chat durations. Mating effort was found to a predictor and accounted for 3.8% of the variance in chat durations. Hence it seems the case that the more mate effort one employs, the longer the chat durations.

### **Limitations and suggestion for future research**

As previously mentioned, because the sample for this study was drawn from a population of university undergraduate psychology students, it may not be representative of the population at large. University students may be more likely to employ slow life history strategies than fast ones. This is apparent in the mean Mini-K score of all participants being 29, on a scale that ranges from -60 to +60, with negative values being indicative of a fast life history strategy and positive values being indicative of a slow life history strategy.

As participants were awarded SRPP points, a necessity for completion of their courses in psychology, some might have participated solely for academic reasons. Hence they might not have been honestly interested in finding a potential partner and/or willing to spend much longer than the required minimum of 15 minutes of participation.

The sample also included participants with ages ranging from 18 to 27. Literature shows that young adults and males in particular, are far likelier to employ short-term mating strategies than older individuals (Mathes, King, Miller & Reed, 2002). Future studies should look at using a sample where participants are not under such incentives and one which is more representative of the general population, in age and Mini-K scores.

The measurement scale used to assess interest scores may have also been problematic. The scale was constructed to have items range from a general interest to meet their partner again, to the desire to engage in sexually intimate behaviour with them. Items that measured participant's interest in becoming physical intimate with their match might not have been appropriate for the short time durations of the chats.

Additionally these items might not have been appropriate within a ‘first date’ context. Participants who weren’t interested in becoming physically intimate with their partner might have reported either a 0 (indicating ‘Neither agree nor disagree’) or a more negative score, -3 for example (indicating disagreement with the statement). This could have negatively skewed some participants interest scores more than others. Future research should look at using a better measuring instrument, perhaps one more appropriate to short-term, ‘first encounter’ dating settings.

### **Conclusions**

This study didn’t find evidence for the hypothesis that individuals who employ a slow life history strategy should show preference for (positive) assortative pairing. This is perhaps due to the studies limitations or perhaps due to the fact that participants were reporting on each other after only a limited time of interaction (on average 44 minutes). The short timeframe might simply not have been sufficient for properly observing the influence of life history strategies on mate pairing.

Alternatively LH strategies simply might not play an important role within pairing contexts with regards to first encounters. Also male short-term mating strategies might play too dominant a role in short term pairing contexts to observe the influence of underlying life history strategies. What does seem to play a role in mate preferences, when potential partners meet for the first time, is the degree of mating effort a person employs.

From the study’s results it seems the more effort one puts into trying to find and court a potential mate the more likely one is to view them favourably and display interest in them. Despite the fact that the studies main hypothesis wasn’t supported, overall the study played an important role in highlighting both potential obstacles and potential shortcomings of life history theory when trying to predict assortative pairing in a ‘first date’, online context.

## References

- Brumbach, B. H., Figueredo, A. J., & Ellis, B. J. (2009). Effects of harsh and unpredictable environments in adolescence on development of life history strategies. *Human Nature, 20*, 25–51.
- Buss, D. M. (2006). Strategies of human mating. *Psihologijsketeme, 15*, 239–260.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: an evolutionary perspective
- Buss, D.M. and Schmitt, D.P. (1993) ‘Sexual Strategies Theory: an evolutionary perspective on human mating’, *Psychological Review 100*, 204–32.
- Dunkel, C. S., Mathes, E., & Decker, M. (2010). Behavioral flexibility in life history strategies: The role of life expectancy. *Journal of Social, Evolutionary and Cultural Psychology, 4*, 51–61.
- Ellis, B. J., Figueredo, A. J., Brumbach, B. H., & Schlomer, G. L. (2009). Fundamental dimensions of environmental risk. *Human Nature, 20*, 204–268.
- Figueredo, A. J., Vásquez, G., Brumbach, B. H., Sefcek, J. A., Kirsner, B. R., & Jacobs, W. J. (2005). The *K*-factor: Individual differences in life history strategy. *Personality and individual differences, 39*(8), 1349-1360.
- Figueredo, A. J., Vásquez, G., Brumbach, B. H., Schneider, S. M., Sefcek, J. A., Tal, I. R., ... & Jacobs, W. J. (2006). Consilience and life history theory: From genes to brain to reproductive strategy. *Developmental Review, 26*(2), 243-275.
- Figueredo, A. J., & Wolf, P. S. (2009). Assortative pairing and life history strategy. *Human Nature, 20*(3), 317-330.
- Figueredo, A. J., Wolf, P., Olderbak, S. G., Gladden, P., & Jacobs, W. J. (2011). A metaanalytic validation of the Mini-K short form of the Arizona Life History Battery. In preperation. *Nature, 20*(3), 317-330.
- Figueredo, A. J., Wolf, P. S. A., Olderbak, S. G., Gladden, P. R., Fernandes, H. B. F., Wenner, C., ... & Rushton, J. P. (2014). The psychometric assessment of human life history strategy: A meta-analytic construct validation. *Evolutionary Behavioral Sciences, 8*(3), 148.
- Gosling, S. D., Rentfrow, P. J., & Swann Jr, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in personality, 37*(6), 504-528



- Greiling, H. and Buss, D.M. (2000) 'Women's sexual strategies: the hidden dimension of short-term mating', *Personality and Individual Differences* 28, 929–963.
- Hamilton, W. D., Axelrod, R., & Tanese, R. (1990). Sexual reproduction as an adaptation to resist parasites (A review). *Proceedings of the Nation Academy of Science*, 87, 3566–3573.
- Hiorns, R. W., Harrison, G. A., Boyce, A. J., & Kuchemann, C. F. (1969). A mathematical analysis of the effects of movement on the relatedness between populations. *Annals of human genetics*, 32(3), 237-250.
- IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.
- Kalmiji, M. (1998). Inter-marriage and homogamy: Causes, patterns, trends. *Annual review of sociology*, 395-421.
- Kaplan, H. S., & Gangestad, S. W. (2005). Life history theory and evolutionary psychology. *The handbook of evolutionary psychology*, 68-95.
- Kirsner, B. R., Figueredo, A. J., & Jacobs, W. J. (2003). Self, friends, and lovers: structural relations among Beck depression inventory scores and perceived mate values. *Journal of Affective Disorders*, 75, 131–148.
- Mathes, E. W., King, C. A., Miller, J. K., & Reed, R. M. (2002). An evolutionary perspective on the interaction of age and sex differences in short-term sexual strategies. *Psychological reports*, 90(3), 949-956.
- Maynard Smith, J. (1978). *The evolution of sex*. Cambridge: Cambridge University Press.
- Miller, G. (2000). Mental traits as fitness indicators. In D. LeCrosy & P. Moller (Eds.), *Evolutionary perspectives on human reproductive behaviour* (pp. 62–74). New York: New York Academy of Sciences.
- Primer, A. (2004). Phenotypic variation from single genotypes.
- Oliver, M. B., & Hyde, J. S. (1993). Gender differences in sexuality: a meta-analysis. *Psychological bulletin*, 114(1), 29.
- Quinlan, R. J. (2010). Extrinsic mortality effects on reproductive strategies in a Caribbean community. *Human Nature*, 21(2), 124-139.
- Roff, D. (2002). Life history evolution. Sunderland: Sinauer.
- Rowe, D. C., Vazsonyi, A. T., & Figueredo, A. J. (1997). Mating-effort in adolescence: A

conditional or alternative strategy. *Personality and Individual Differences*, 23(1), 105-115.

Schmitt, D. P., Shackelford, T. K., & Buss, D. M. (2001). Are men really more 'oriented' toward short-term mating than women? A critical review of theory and research. *Psychology, Evolution & Gender*, 3(3), 211-239.

Schmitt, D. P. (2003). Universal sex differences in the desire for sexual variety: tests from 52 nations, 6 continents, and 13 islands. *Journal of personality and social psychology*, 85(1), 85.

Stearns, S. C. (1992). *The evolution of life histories*. Oxford: Oxford University Press.

Trivers, R. (1972) Parental investment and sexual selection, in B. Campbell (Ed.), *Sexual election and the descent of man* (pp. 136-179). Chicago: Aldine.

Wilbur, C. J., & Campbell, L. (2010). What do women want? An interactionist account of women's mate preferences. *Personality and Individual Differences*, 49(7), 749-754.

## Appendix A

### The Interest Survey

1. Please enter your student number:
2. With regards to the person you just chatted with, please circle the number that best indicates how strongly you agree or disagree with the following statements:

I enjoyed chatting to this person.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
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I would like to chat to this person again.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
-------------------	---------------------	-------------------	----------------------------	----------------	------------------	----------------

I liked this person

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
-------------------	---------------------	-------------------	----------------------------	----------------	------------------	----------------

I would like to meet him/her in person.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
-------------------	---------------------	-------------------	----------------------------	----------------	------------------	----------------

I am attracted to this person.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
-------------------	---------------------	-------------------	----------------------------	----------------	------------------	----------------

I find this person sexually appealing.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
-------------------	---------------------	-------------------	----------------------------	----------------	------------------	----------------

I would like to go on a date with this person.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
-------------------	---------------------	-------------------	----------------------------	----------------	------------------	----------------

I would like to kiss this person

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
-------------------	---------------------	-------------------	----------------------------	----------------	------------------	----------------

I would like to become even more physically intimate with this person than just kissing them  
(but not including sexual intercourse).

---

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
----------------------	------------------------	-------------------	-------------------------------	----------------	---------------------	----------------

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I would like to have sexual intercourse with this person.

---

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
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Thank you for your participation.

**Appendix B**  
**Socio-demographic questionnaire.**

Please fill in the following form, note that all information will be kept confidential.

1. Student number:
2. What course code would you like the SRPP points allocated to?
3. Date of Birth:

Please circle the relevant response below:

4. Are you currently in an exclusive (monogamous) relationship:

Yes            No

5. Sex:

Male    Female

6. What is your sexual orientation:

Heterosexual            Homosexual            Bisexual            Asexual

7. Race:

Black            Coloured            Indian            White            Other

**Appendix C****MINI-K-20**

Please indicate how strongly you agree or disagree with the following statements. Use the scale below and write your answers in the spaces provided. For any item that does not apply to you, please enter "0"

-3	-2	-1	0	+1	+2	+3
Disagree strongly	Disagree somewhat	Disagree slightly	Don't Know/Not Applicable	Agree Slightly	Agree Somewhat	Agree Strongly

- \_\_\_\_\_ 1. I can often tell how things will turn out.
- \_\_\_\_\_ 2. I try to understand how I got into a situation to work out how to handle it.
- \_\_\_\_\_ 3. I often find the bright side to a bad situation.
- \_\_\_\_\_ 4. I don't give up until I solve my problems.
- \_\_\_\_\_ 5. I often make plans in advance.
- \_\_\_\_\_ 6. I avoid taking risks.
- \_\_\_\_\_ 7. While growing up, I had a close and warm relationship with my biological mother.
- \_\_\_\_\_ 8. While growing up, I had a close and warm relationship with my biological father.
- \_\_\_\_\_ 9. I would rather have one than several sexual relationships at a time.
- \_\_\_\_\_ 10. I have to be in a close emotional relationship with someone before I am comfortable having sex with them.
- \_\_\_\_\_ 11. I am often in social contact with my blood relatives.
- \_\_\_\_\_ 12. I often get emotional support and practical help from my blood relatives.
- \_\_\_\_\_ 13. I often give emotional support and practical help to my blood relatives
- \_\_\_\_\_ 14. I am often in social contact with my friends.
- \_\_\_\_\_ 15. I often get emotional support and practical help from my friends.
- \_\_\_\_\_ 16. I often give emotional support and practical help to my friends.
- \_\_\_\_\_ 17. I am closely connected to and involved in my community.

\_\_\_\_\_ 18. I am closely connected to and involved in my religion

**Appendix D****MVI**

Please indicate how you would rate yourself on each of the following characteristics:

	-3	-2	-1	0	+1	+2	+3		
	Extremely low on this characteristic			Don't care/ average on this characteristic			Extremely high on this characteristic		
1. Aggressive			-3	-2	-1	0	1	2	3
2. Ambitious			-3	-2	-1	0	1	2	3
3. Attractive body			-3	-2	-1	0	1	2	3
4. Attractive face			-3	-2	-1	0	1	2	3
5. Controlling			-3	-2	-1	0	1	2	3
6. Desires children			-3	-2	-1	0	1	2	3
7. Emotionally stable			-3	-2	-1	0	1	2	3
8. Enthusiastic about sex			-3	-2	-1	0	1	2	3
9. Faithful to partner			-3	-2	-1	0	1	2	3
10. Financially secure			-3	-2	-1	0	1	2	3
11. Generous			-3	-2	-1	0	1	2	3
12. Good sense of humour			-3	-2	-1	0	1	2	3
13. Healthy			-3	-2	-1	0	1	2	3
14. Independent			-3	-2	-1	0	1	2	3
15. Intelligent			-3	-2	-1	0	1	2	3
16. Jealous			-3	-2	-1	0	1	2	3
17. Kind and understanding			-3	-2	-1	0	1	2	3
18. Loyal			-3	-2	-1	0	1	2	3
19. Manipulative			-3	-2	-1	0	1	2	3
20. Possessive			-3	-2	-1	0	1	2	3
21. Responsible			-3	-2	-1	0	1	2	3
22. Sociable			-3	-2	-1	0	1	2	3



## Appendix E

### MES

Under each question you will see five response categories, circle the response that best fits you. Use the key below as a guide. Be sure to answer the question appropriate for the gender that you date.

---

-2	-1	0	+1	+2
Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree

---

1. FEMALE: When I see an attractive boy with his girlfriend, I might try to get his attention.

MALE: When I see an attractive girl with her boyfriend, I might try to get her attention.

-2                  -1                  0                  +1                  +2

2. FEMALE: I would rather date several boys at once than just one boy.

MALE: I would rather date several girls at once than just one girl.

-2                  -1                  0                  +1                  +2

3. FEMALE: I think boys find me naturally attractive.

MALE: I think girls find me naturally attractive.

-2                  -1                  0                  +1                  +2

4. FEMALE: I like boys more for their good looks than for their companionship.

MALE: I like girls more for their good looks than for their companionship.

-2                  -1                  0                  +1                  +2

5. FEMALE: I would get back at someone who looked at my boyfriend in the wrong way.

MALE: I would get back at someone who looked at my girlfriend in the wrong way.

-2                      -1                      0                      +1                      +2

6. FEMALE: I would start a relationship with another boy before ending one with my current boyfriend.

MALE: I would start a relationship with another girl before ending one with my current girlfriend.

-2                      -1                      0                      +1                      +2

7. My friends respect me because they know I'm a little wild and crazy.

-2                      -1                      0                      +1                      +2

8. FEMALE: If other girls think I am attractive to boys, they will stay away from my boyfriend.

MALE: If other boys think I am attractive to girls, they will stay away from my girlfriend.

-2                      -1                      0                      +1                      +2

9. FEMALE: Other girls respect me because they know I have a lot of friends who would support me.

MALE: Other boys respect me because they know I have a lot of friends who would support me.

-2                      -1                      0                      +1                      +2

10. FEMALE: If other girls think I am "tough," they will stay away from my boyfriend.

MALE: If other boys think I am "tough," they will stay away from my girlfriend.

-2                      -1                      0                      +1                      +2

## Appendix F

### Ten-Item Personality Inventory (TIPI)

Here are a number of personality traits that may or may not apply to you.

Please write a number next to each statement to indicate the extent to which *you agree of disagree with that statement*. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1	2	3	4	5	6	7
Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly

I see myself as:

1. \_\_\_\_\_ Extraverted, enthusiastic.
2. \_\_\_\_\_ Critical, quarrelsome.
3. \_\_\_\_\_ Dependable, self-disciplined.
4. \_\_\_\_\_ Anxious, easily upset.
5. \_\_\_\_\_ Open to new experiences, complex.
6. \_\_\_\_\_ Reserved, quiet.
7. \_\_\_\_\_ Sympathetic, warm.
8. \_\_\_\_\_ Disorganized, careless.
9. \_\_\_\_\_ Calm, emotionally stable.
10. \_\_\_\_\_ Conventional, uncreative.

---

LSH Match		
	Fast Life History Strategy	Slow Life History Strategy
Fast		
Life	Mate Value	Mate Value
History	Mate Effort	Mate Effort
Strategy	Personality Traits	Personality Traits
Slow		
Life	Mate Value	Mate Value
History	Mate Effort	Mate Effort
Strategy	Personality Traits	Personality Traits

---

### Appendix G

## Appendix H

### Consent Form

#### **Consent to participate in a research study on online dating.**

Please read the following consent form carefully and indicate whether you give your consent to participate in this study.

Dear participant,

You are being asked to participate in a research study regarding online dating, being conducted by a psychology honours student from the University of Cape Town. This study creates an online dating environment which is similar to those provided by regular online dating services.

Please complete the questionnaire bellow, your responses shall be kept completely confidential, so please reply honestly. Participants will be assigned a participant number that will be used so all personal information shall be kept separate from your survey responses, so that those survey responses remain completely confidential. Once you have completed the questionnaire, if you still wish to participate in the study then you need to provide your name and contact details so we may contact you if you are found eligible to participate. Your name and contact details shall be kept completely confidential, they shall only be used in relation to this study and shall not be shared with anyone outside the research team.

If you are found eligible to participate in this study, you shall be required to participate in two online chat sessions where you will be matched with another person to chat with. You are required to chat to the person for the duration of 15 minutes minimum. If however you wish to continue chatting after this you may, for as long as you wish. However once you have logged out you will not be able to re-join (if the original 15 minutes are over). Your login details and a guide on using the site shall be provided for you.

Participation in this study is completely voluntary. If you decide to participate, you are free to withdraw from this study at any time however you will not receive any SRPP points if you do. You will only receive the 2 SRPP points if you complete the two chat room sessions and the short questionnaire that follows them.

**Participatory Requirements:** You are to remain anonymous throughout the course of the online chat sessions. That means you MAY NOT give out your name. You can however chat about anything else, so long as it adheres to the following ethical guidelines.

**Ethical requirements:** You will be expected to practice good behaviour when in the chat room. You MAY NOT threaten, provoke, verbally abuse, bully or behave in any way that may be deemed as inappropriate or harmful to the other participant. A researcher will immediately block any participant that doesn't adhere to these ethical requirements.

**Inclusion Criteria:** Participant must be between 18 and 29 years of age. Heterosexual and currently single. Only candidates who are serious about taking part in online dating are wanted.

**Risks:** The only risk to you in participating in this study is that the person you are partnered with might not uphold the ethical requirements stated above. A researcher will be continuously monitoring the chat for the purpose of ensuring these ethical requirements are upheld and immediately block any participant that doesn't adhere to these ethical requirements. At any stage you may log out if you feel the other participant isn't adhering to these ethical requirements.

If you feel you have suffered any negative effects from this study, you must contact the researcher immediately, who will put you in contact with a counselling service.

Any study-related questions, problems, emergencies or if you feel you were harmed in any way from participating in this study, please contact the following researcher immediately:

Christopher Anderson: ANDCHR012@myUCT.ac.za

Questions about your rights as a study participant, comments or complaints about the study also may be presented to the Research Ethics Committee, Department of Psychology, UCT.

By consenting to participate in this study you are verifying that you understand the following participatory and ethical requirements. If you fail to uphold any of these requirements you will be removed from the study immediately and you will not receive any SRPP points.

I have read and understood the above:

\_\_\_\_\_ I give my consent to participate in this study

\_\_\_\_\_ I do not give my consent to participate in this study

Signed by \_\_\_\_\_ on \_\_\_\_\_

Signature: \_\_\_\_\_

## **Appendix I**

### **Name and Contact details**

If you still wish to participate in the study and earn 2 SRPP points, please provide us with your name and contact details. Your name and contact details shall be kept completely confidential, it shall also be kept separate from your survey responses, so that those survey responses remain completely confidential. Please ensure this information is correct so we may contact you if you are found eligible to participate.

- 1. Name:**
- 2. Contact details – Phone Number:**
- 3. Contact details – Email:**

## **Appendix J**

### **SRPP Advertisement**

Hello

Would you like to participate in a fun online dating study and earn 2 SRPP points in the process?

It's quick, easy and you just might meet that special someone ;)

Simply fill out a quick survey and chat with two people for ten minutes each!

**Click Here** to proceed 😊

Hyperlink: [www.surveymonkey.com](http://www.surveymonkey.com)



## **Appendix K**

### **Phase two feedback**

**You have been found eligible to participate in our online dating study! You will be paired up with two people were your expected to chat for ten minutes each. If you would like to chat further you can, note that once you log off, you will not be able to rejoin the chat. After each chat session you will be expected to fill out a quick questionnaire. After the two sessions you will be awarded 2 SRPP points. You will need to join a chat room on the chat site Chatzey, your login details will be provided for you in addition to a guide on how to use the site.**

**Thank you for your participation.**

### **SRPP Advertisement**

#### Online Dating Study

Would you like to participate in a fun online dating study and earn 2 SRPP points in the process?

It's quick, easy and you just might meet that special someone ;)

Hi, my name is Chris Anderson, and I'm conducting a study on online dating. To participate, simply fill out a quick survey, it shouldn't take you more than 15 minutes. You'll then be matched with two other people whom you'll chat with separately for a minimum of 15 minutes each. After each session you'll need to fill out a short questionnaire and then you'll receive your 2 SRPP points.

**Simply Click Here** to proceed ☺

Hyperlink: [www.surveymonkey.com](http://www.surveymonkey.com)

**Inclusion Criteria:** Participant must be between 18 and 27 years of age. Heterosexual and currently single. Only serious candidates are wanted.

*"It is generally accepted that the decision to include or exclude individuals from participating in a study depends on the focus, objective, nature of research and context in which the research is conducted. Some research may be focused on a certain individual (such as in a person's life history), or a group of individuals who share a specific characteristic (e.g., an identifiable group of asthma sufferers who happen to be all of one sex; a religious order that is restricted to one sex). Other examples include research that is focused on specific cultural traditions or languages, or on one age group (e.g., a study of posture corrections in adolescents). These are regarded as appropriate forms of inclusion and exclusion of individuals or groups in research studies - so*

*long as the selection criteria for those to be included in the research are relevant to answering the research question."*