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Changing her ways: The number of options and mate-standard strength impact mate choice strategy and satisfaction

Alison P. Lenton* and Amanda Stewart
Department of Psychology
University of Edinburgh

Abstract

Researchers know very little about *how* people choose mates. To remedy this, the present study examined the influence of number of potential mates and mate-standard strength on single women's choice satisfaction and strategy use. Single women chose one potential partner from a set of 4, 24, or 64 options presented on a real dating website. Participants adjusted to an increasing number of options by changing their decision-making strategies, such that they relied on noncompensatory, attribute-based strategies as the number of options increased. Across conditions they reported similar levels of satisfaction with the choice process and the person selected. Mate-standard strength qualified some of the results, however, as women with higher mate standards preferred extensive choice, and they tended to prefer compensatory choice strategies and were more satisfied with the option selected when he was selected from among many.

Keywords: mate choice; choice strategies; heuristics; choice satisfaction; standards.

In the 14th century, when 23 people lived in one farming village, it must have been pretty easy to select your spouse... Now, with globalization we actually have millions of partners to choose from... I don't know about you, but I freeze in the supermarket just looking at four brands of washing powder. (Coren, 2006).

1 Introduction

This woman describes a potential quandary of modern dating. More than 600 million people worldwide have Internet access (Manasian, 2003), and with innovations such as dating websites, people can literally access "millions of profiles for millions of [romantic] possibilities" (Match.com, n.d.). This may seem like a fantastic development, as we no longer have to settle for the villager next door. But how — if at all — do we cope with such extensive choice? This study examines the effects of the number of potential mates on single women's choice strategy and satisfaction, and how mate-standard strength moderates these effects.

*We would like to thank Augustina Skoropadskaya for her assistance with data collection. Address: Alison Lenton, Department of Psychology, University of Edinburgh, 7 George Square, Edinburgh EH8 9JZ, United Kingdom; email: a.lenton@ed.ac.uk.

1.1 Too many jams and chocolates

It is commonly believed that the more options there are, the better (Iyengar & Lepper, 2000). Sustaining this belief, many studies have demonstrated extensive choice's benefits for intrinsic motivation (Zuckerman, Porac, Lathin, Smith, & Deci, 1978), motivation to learn (Cordova & Lepper, 1996), and well-being (Langer & Rodin, 1976). However, studies have shown that an increase in choice may have potential costs (Simonson & Tversky, 1992; Tversky & Shafir, 1992). Iyengar and Lepper's (2000) now-classic research clearly illustrates some such downsides. In one study, supermarket shoppers encountered a stand displaying either 6 (limited choice) or 24 (extensive choice) flavors of jam. Although more shoppers approached the stand displaying the extensive selection, more shoppers purchased jam in the limited choice condition. In a similar study of chocolates, participants in the limited choice condition were significantly more satisfied with their selection than were participants in the extensive choice condition. Thus, while extensive choice is initially appealing, it may lead to decision avoidance and decreased satisfaction.

The choice strategy a chooser uses may similarly depend on the number of options available (Payne, Bettman, & Johnson, 1993). People are more likely to adopt noncompensatory choice strategies and/or more attribute-based choice strategies when faced with extensive choice; limited choice elicits the use of relatively more compensatory strategies and/or more option-based choice strate-

gies. (Table 1 lists such strategies; see Payne et al., 1993; Tversky, 1972.) Furthermore, a larger number of options is more likely to elicit the use of multiple-strategies, with one used to winnow the set to a smaller number and another used to examine the remaining options in greater detail (Edwards & Fasolo, 2001; Payne et al., 1993). Use of heuristic-type choice strategies may help choosers deal with the cognitive load and costs that can result from extensive choice. In fact, their use can help choosers achieve notable accuracy and time savings (Payne, Bettman, Johnson, & Coupey, 1990).

Chernev (2003a,b) proposed that individual differences may moderate the extent to which large option sets overwhelm. He argued that those with an *articulated ideal point* (i.e., people who have well-defined prior preferences) are likely to be even more attracted to extensive choice but, crucially, are less likely to be affected negatively by it. This is because "ideal points imply a hierarchical attribute structure and readily articulated attribute tradeoffs" (p. 175). In other words, those without an articulated ideal point have to construct their preferences on the fly, while those with articulated preferences can put them to use immediately and easily. In line with this theorizing, Chernev (2003b) found that participants with (versus without) an articulated ideal point were less likely to trade in a chocolate selected from a large assortment, but more likely to trade in a chocolate selected from a small assortment. And participants faced with choosing a chocolate from an extensive set were more likely to search option-by-option, but only if they had articulated preferences; otherwise, they searched attribute-by-attribute (Chernev, 2003a). Thus, people who know what they want are more likely to use option-based (versus attribute-based) choice strategies and to be more content with their choice when selecting from an extensive array, as compared to those with unarticulated preferences. The impact of articulated preferences on the use of compensatory versus noncompensatory strategies has not been directly examined to our knowledge. Theory would have us predict, however, that the application of compensatory strategies — which are cognition-intensive (Payne, et al., 1993) — becomes easier when one possesses a well-defined preference structure.

1.2 Too many mates?

According to Klayman (1985), the distinctions between limited and extensive option sets become fewer when the choice domain is of import. And what could be more important than choosing a mate (Miller & Todd, 1998)? Again, the purpose of the present research is to investigate the impact of having extensive versus limited choice on mate choice strategy and satisfaction. While there has been a great deal of research on *who* we choose (Buss & Barnes, 1986; Hitsch, Hortacsu & Ariely, 2006; Todd, Penke, Fasolo, & Lenton, 2007), there has been relatively little investigating *how* we choose. Of the latter, most research focuses on normative or simulated choice strategy use (Simão & Todd, 2002, 2003; Todd, 1997; Todd & Miller, 1999). Nevertheless, some models suggest that mate search strategies may rely on choice heuristics, rather than more information-hungry choice strategies, and that the use of such strategies can result in "good enough" choices (given bounds on rationality), supporting their adaptiveness in this context (Bateson & Healy, 2005; Todd; Todd & Miller).

A recent study suggests that, as in consumer choice, reliance on choice heuristics may increase with the number of potential mates (Lenton, Fasolo, & Todd, in press). As the number of opposite-sex speed-daters rose, mating skew increased (n.b., mating skew is traditionally used to study non-human animals' [in]equality in mating success; see Kokko & Lindström, 1997). In other words, with an increasing number of potential mates, individual speed-daters are more likely to converge upon the same option(s). To make their choice, speed-daters predominantly pay attention to visual cues (e.g., physical attractiveness), which are easy to assess (Olson & Marshuetz, 2005) and about which people there exists consensus regarding what makes for an appealing mate; whereas they pay less attention to harder-to-observe cues (e.g., education level), because they are difficult to assess when speed-dating (Kurzban & Weeden, 2005). To explain the relationship between the number of options and mating skew, Lenton et al. argued that participants' choice strategy changed as a function of the size of the speed-dating event: In larger sessions, they focused even more intently on easy-to-observe cues that reflect preferences held in common by many other speed-daters, leading to less spread in their distribution of choices (more skew). Conversely, in smaller sessions participants attempted to combine more cues, including those reflecting relatively idiosyncratic preferences and, as a result, their distribution of choices became more spread (less skewed). The evidence for these contentions, however, is only indirect.

More direct evidence regarding the impact of extensive choice on the chooser comes from another recent study (Lenton, Fasolo, and Todd, 2008). Participants viewed a mock dating website comprising either 4 or 20 profiles, the former of which a preliminary study identified as being too small, and the latter of which the same study identified as being within an ideal range. Thereafter, participants reported on the difficulty of selecting a potential mate, their satisfaction with and (preliminary) regret concerning their choice, and the enjoyment they experienced making this choice. Participants' memory for the person selected was also tested. The results revealed no differential affect or meta-cognition as a function of the size

of the mate option set. Analysis of participants' memory indicated that participants selecting from 20 potential mates had more memory intrusions (i.e., confabulations). Thus, in the mate choice domain, a "too-small" option set seemingly leads to the same choice experience as does an "ideal" option set. At the same time, there is evidence that even an ideal number of options contributes to the use of search strategies requiring reduced processing of the options.

1.3 Study Overview

Our study improves and expands upon the work by Lenton et al. (2008) in several ways. Firstly, for this study we recruited single women who made their selections from a real, rather than mock, dating website. In addition to enhancing the external validity of the findings, the present work expands the theoretical implications because participants made their choice from a set of 4, 24, *or* 64 potential mates. Not only is the addition of this third — larger-than-ideal — condition more indicative of what real webdaters might encounter on a dating website, but — unlike the study by Lenton et al. (2008) — it provides a true test of the effects of "too much choice" on choosers in this domain. Furthermore, the present study examines an alternative explanation for the finding that the number of options has little impact on choosers in this important domain. In particular, it is evident that humans possess well-defined preferences regarding the attributes they desire in a mate (e.g., Buss & Barnes, 1986; Li, Kenrick, Bailey, & Linsenmeier, 2002). As a result, and regardless of the number of options, people may rely on compensatory and/or option-based choice heuristics in this domain (Klayman, 1985). Accordingly, selecting a potential mate from a larger set may become just as easy, enjoyable, etc., as selecting one from a smaller set.

Among those with articulated preferences, however, there remains potential variability in the use of such choice strategies. Such variability may result from differences in *mate-standard strength*, which is similar to Simon's (1955) notion of aspiration level. Unlike the latter construct, however, mate-standard strength does not concern *minimally acceptable* levels of the criteria but, rather, *optimal* or *ideal* levels of the criteria. In this way, mate-standard strength might be more akin to what Selten (2001) calls a "permissible" aspiration level, which is potentially optimistic (p. 21). Regardless of the particulars of this distinction, we expect that aspiration level and mate-standard strength function similarly, as both relate to individuals' thresholds of acceptability and, thus, the ease with which a decision maker can winnow options in/out. From this perspective, we do not necessarily view mate-standard strength as being similar to Schwartz et al.'s (2002) notion of maximizing, for, although maximizers are purported to have higher standards, maximizers' higher standards supposedly lead them to become more overwhelmed when faced with extensive choice. On the contrary, we expected that mate-standard strength would moderate the effect of the number of options on choosers' choice experience and strategy, such that individuals with higher standards (i.e., where the ideal mate dominates on most attributes) — like those with Chernev's (2003ab) articulated preferences — would prefer extensive choice, be more satisfied with their selection from extensive choice, use compensatory strategies and process information more by option in extensive choice than would individuals with lower mate standards, who are relatively more like those without articulated preferences.

2 Method

2.1 Participants

We recruited 122 participants via advertisements seeking *single*, *female* students between the ages of 18 and 27 from the University of Edinburgh community. Despite this directed promotion, 17 participants reported having a regular dating partner or being in a serious relationship (all others had either a casual/sexual partner or no partner); these participants were excluded from the analyses. Additionally, one person reported being male and one person failed to indicate his or her sex; these participants were also excluded. Finally, three further participants were excluded from the analyses, as they reported being homosexual or failed to indicate a sexual orientation. Homosexual women could not be included, as the study required participants to consider men as potential romantic relationship partners. The final data set contained 100 participants for analysis.

2.2 Materials and procedure

After obtaining consent, we gave participants instructions on using the dating website (http://personals.londonist.com[1]). These asked participants to look through the profiles with the goal of "select(ing) the one individual that, hypothetically, you would most like to contact for further communication and possibly a date." These instructions also contained the primary manipulation: Participants were randomly assigned to instruction set, which told them to look at 1, 6, or 16 pages of the website (4 profiles per page). The experimenter then demonstrated how to navigate the website, including how to use the favorites folder (see

[1] Since the study's completion, this dating website has been replaced by another.

below). Women's profiles were used for this demonstration so that participants would not be exposed to additional male profiles. When participants understood how to navigate the website, they were permitted to begin viewing their assigned number of profiles; at this point, the experimenter took note of the time (in minutes) at which the participant began viewing the profiles.

Each profile initially consisted of the person's photograph, user name, age (per search restrictions put in place prior to participants' arrival, all men were between the ages of 18 and 27), and their location (restricted to men in the UK). If a participant wanted to see more information about a person, she could click on that individual and find out, for example, the individual's hobbies and career. The website also contained a favorites folder into which the participant could add profiles for re-viewing and/or comparing with others at any time.

When the participants completed their search, the experimenter took note of the time again (in minutes), and provided them with a questionnaire, which asked participants to write the user name of the person selected. The questionnaire continued with a series of questions about their choice and method of choosing. In particular, nine items asked participants to report their choice experience using 7-point scales (Lenton et al., 2008), such as the difficulty of making the choice, their (preliminary) regret concerning the selected individual, the degree to which they would like to change their choice, their enjoyment of the choice process, their (preliminary) satisfaction and contentment with the individual selected, how well-informed they thought their choice was, whether they had wanted more (versus fewer) profiles to choose from, and whether they had wanted more (versus less) information about each of the individuals.

Participants indicated whether they used the favorites folder (yes or no), and (if yes) how many profiles they put into the folder (with eight option-clusters provided: 1–2, 3–5, 6–10, 11–15, 16–20, 21–25, 26–30, or 31+). Following this, the questionnaire asked participants to report the strategy they used to make their choice ("tick all that apply"), via exemplar descriptions assessing: Satisficing (Sat), Lexicographic (Lex), Most Confirming Dimensions (MCD), Elimination by Aspects (EBA) and/or (Weighted) Averaging (WAV; see Appendix). These strategies are among the most commonly used and, together, they represent all four combinations of compensatory versus noncompensatory strategies and attribute- versus option-based strategies (see Table 1; Edwards & Fasolo, 2001; Payne et al., 1993).[2]

In order to assess mate-standard strength (MSS, hereafter), participants responded to nine items asking them to indicate on 7-point scales the extent to which their ideal — but realistic — partner should be: attractive, a high-earner, intelligent, witty, warm-hearted, healthy, sociable, highly educated, and in a high-status occupation (characteristics known to be important to women in mate choice; Buss & Barnes, 1986). The final, demographics section of the questionnaire asked participants to report their sex, age, ethnicity, sexual orientation, and relationship status (described previously). Once a participant completed the questionnaire, she was thanked, debriefed, and paid £5.50 (approximately $10 at the time).

3 Results & Discussion

3.1 Variable Construction

Before hypothesis testing, we needed to ensure that the set-size manipulation did *not* influence participants' ideal mate standards, as it has been hypothesized — but not shown – that one of the ways people deal with extensive choice is to raise their standards (Schwartz, 2000). We ran a multivariate analysis of variance (MANOVA) on the nine ideal mate ratings, with the number of options (4 vs. 24. vs. 64 profiles) as the independent variable. The multivariate test showed that the effect was nonsignificant across the ratings, Wilks' Λ = .83, F (18, 178) = .96, p = .50. Thus, whether a participant examined 4, 24, or 64 profiles did not affect her standards regarding what makes for an ideal partner. The nine responses were averaged to form our MSS measure (α = .63).[3]

Next we conducted an exploratory factor analysis (principal components, varimax rotation) on the choice experience items. The scree plot and eigenvalues (>1) suggested a two factor solution, together explaining 51% of the variance. Items were assigned to a factor if they loaded above .3. If an item loaded above .3 on both, it was assigned to the higher-loading factor. The first factor, comprising seven items, was named "choice satisfaction," and relates to items indicating a positive attitude towards the choice process and the selection made (e.g., *"I enjoyed choosing"* and *"I am satisfied with my choice")*. The second factor, named "wants more," relates to the two items asking participants if they wished they'd had more profiles or more information in each profile. Only the first factor had satisfactory internal consistency (α = .75 for the first, α = .57 for the second), so we averaged the relevant items to form a choice satisfaction index, whereas the other two items were analyzed independently of one another.

[2]Weighted additive/average and equal weight strategies don't differ with respect to these features, hence the generality of the WAV description.

[3]The internal consistency of this measure would not improve significantly with the removal of any item.

3.2 Outliers

For hypothesis testing with the continuous dependent variables, outliers were detected via analysis of studentized deleted residuals, Leverage values, and Cook's distances, and then removed to avoid undue influence on the coefficients.[4] Where such outliers were identified and removed, we note it below. With respect to categorical dependent variables, we did not remove outliers because, in some cases, this served to obviate the analysis (e.g., because the identified outliers were all of the cases in one of the set-size conditions); for these, we present the 95% confidence intervals around Exp[B].

3.3 Choice experience

To examine whether the number of options influenced participants' choice experience and, further, whether this relationship is moderated by MSS, we conducted three multiple linear regressions, one with choice satisfaction as the dependent variable (DV), another with wants more profiles as the DV, and a third with wants more information as the DV. Each DV was regressed on the linear contrast of set-size condition (contrast 1: –1, 0, +1, in ascending order), the quadratic contrast of set-size condition (contrast 2: –1, +2, –1, in ascending order), MSS (centered), contrast 1 × MSS, and contrast 2 × MSS.

The analysis of choice satisfaction showed one significant result (two outliers removed): the linear effect of set-size condition (contrast 1) depended on MSS, $t(95) = 1.99$, $p = .049$, pr (i.e., partial correlation) = .21. For all other predictors, $|t(95)| < .75$, $p > .45$. To interpret the interaction, we examined the relationship between MSS and choice satisfaction for the small (4) and large (64) conditions separately. Neither relationship reached significance: $t(32) = -1.50$, $p = .15$, $pr = -.26$ and $t(30) = 1.43$, $p = .16$, $pr = .25$, respectively. The interaction stems from their different signs. Replicating Lenton et al.'s (2008) results, set-size condition had no overall impact on the choice experience. Like Chernev (2003a,b), we believe that extensive choice does not necessarily have sizeable affective or meta-cognitive downsides. The primary determinant of whether choosers experienced these was MSS. Possessing higher (versus lower) standards yields more choice satisfaction when confronting extensive choice, and less choice satisfaction when confronting limited choice (Figure 1).

The analysis of wants more profiles revealed several effects (two outliers removed), including: 1) a significant linear effect of set-size condition indicating that the desire to see more profiles decreased as the number of options increased, $t(96) = -2.70$, $p = .008$, $pr = -.27$; 2) a marginal quadratic effect of set-size condition suggesting that those in the "ideal" set-size condition were somewhat less likely than participants in the other two conditions combined to want to see additional profiles, $t(96) = -1.73$, $p = .087$, $pr = -.18$; and 3) a marginal effect of MSS suggesting that participants with strong mate standards were somewhat more likely to desire additional options, $t(96) = 1.73$, $p = .087$, $pr = .18$. These effects were qualified by a significant contrast 1 × MSS interaction, $t(96) = 3.13$, $p = .002$, $pr = .31$, and a contrast 2 × MSS interaction, $t(96) = -2.13$, $p = .036$, $pr = -.22$. Because the interaction containing the linear effect (contrast 1) was notably stronger, it is the one we analyze further by examining the smallest (4) and largest (64) conditions separately. The relationship between MSS and wants more profiles was nonsignificant in the small condition, $t(34) = -.52$, $p = .61$, $pr = -.09$, but significant in the large condition, $t(30) = 3.37$, $p = .002$, $pr = .52$. Participants with higher (versus lower) mate standards did not differ in their desire to see more profiles in the small condition; in the large condition, however, those with higher standards still wanted to see more profiles (Figure 2). Thus, the desire of those with higher mate standards to have abundant choice was not satisfied by our extensive choice condition. On the other hand, those with lower mate standards were more sensitive to the number of available options.

The third regression yielded one significant result (two outliers removed): a main effect of MSS indicating that, as mate standards increased, so did participants' desire to have more information about each potential mate., $t(96)$

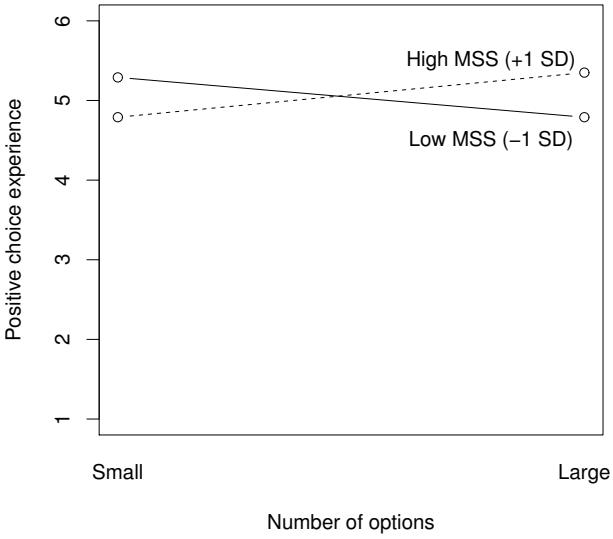

Figure 1: Choice Experience: Contrast 1 × Mate-Standard Strength (MSS) Interaction.

[4]The criteria (Judd & McClelland, 1989) were: if $|SDR| > 3$, the case was removed. If a Leverage value > three times its mean value *or* if Cook's distance was unusual, the other indices were inspected. If at least one additional index also suggested the case was unusual, it was removed.

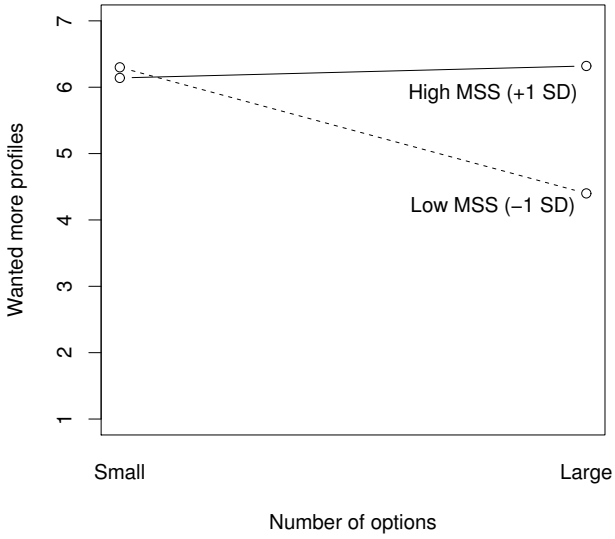

Figure 2: Wanted More Profiles: Contrast 1 × Mate-Standard Strength (MSS) Interaction.

= 2.15, p = .035, pr = .22. All other effects were nonsignificant, $|t(96)| < 1.25$, $p > .20$. Not only do those with higher mate standards seem willing and able to deal effectively with more options, but they also want to know more about the options' attributes, regardless of the number of options.

3.4 Choice Strategies

The adaptive use of choice strategy may help explain the choice experience results. We conducted five binary logistic regressions, one per strategy (Sat, MCD, Lex, EBA, and WAV). Each DV (code: 0 = no, 1 = yes) was regressed on the linear effect of set-size condition (contrast 1; see Table 1), the quadratic effect of set-size condition (contrast 2), MSS (centered), and the interactions between MSS and each of the two contrasts. Table 1 provides the results.

In line with consumer choice research (Payne et al., 1993; Tversky, 1972), for two of the three noncompensatory strategies — both of which are also attribute-based (Lex, EBA) — as the number of potential mates increased, participants were more likely to report using these heuristics (see Table 2). This effect was observed for the third noncompensatory strategy (Sat) as well, though its expression depended somewhat upon MSS. Analysis of Sat by set-size showed that MSS was nonsignificant for the small (Wald χ^2 = 1.99, p = .16, Exp[B] = 5.27) and large (Wald χ^2 = 1.05, p = .31, Exp[B] = .59) option sets. The interaction stems from the differing directions of the focal relationship, such that having higher mate standards is associated with more satisficing when faced with few options choice, and less satisficing when faced with many options, a pattern of results corresponding with our prediction that those with strong mate standards would rely less upon noncompensatory strategies (more on compensatory) when confronting extensive choice. A complication exists, however, because Sat is also an option- rather than attribute-based search strategy; from this perspective, the interaction conflicts with our prediction regarding the effects of MSS on the use of option-based strategies in large sets. To remedy this conflict, we propose that high MSS preference for compensatory strategies outweighs that for option-based search strategies.

Analysis of MCD, a compensatory, attribute-based search strategy, indicated that as the number of options increased, so did participants' reliance on MCD. While this result supports one aspect of prior research on consumer choice (increased use of attribute-based strategies), it conflicts with another (decreased use of compensatory strategies; Payne et al., 1993; Tversky, 1972). This marginal effect was qualified, however, by a marginal interaction with MSS. Analysis by set-size condition showed that the effect of MSS was nonsignificant for both the small (Wald χ^2 = 2.20, p = .14, Exp[B] .54) and large (Wald χ^2 = .73, p = .39, Exp[B] = 1.43) option sets; it was the relationship's direction that differed. Having higher mate standards is associated with lesser use of MCD when confronting limited choice, but increasing use of MCD when confronting extensive choice. These results are in line with our prediction concerning the moderating influence of MSS on the use of compensatory strategies in large option sets and, further, support our contention that strategy use depends more upon its (non)compensatory nature than whether it is option- or attribute-based. Importantly, the strongest predictor of MCD, however, was the quadratic contrast: Participants were more likely to use MCD in the ideal-sized set versus the other sets combined. This result seems to reflect MCD's status as a strategy that lies somewhere between those that are wholly heuristic and those that are wholly maximizing for, like the former, it is attribute-based and it does not require the chooser to take into account all of the available information but, like the latter, it is compensatory, it makes consistent use of the information it does incorporate, it leads to the formation of an overall evaluation, and it relies on quantitative (versus qualitative) reasoning (Payne et al., 1993).

As for WAV, our compensatory, option-based search strategy, we found significant linear and quadratic effects of condition, with the former being stronger and, thus, the one to weigh more heavily. Participants were less likely to use WAV as the number of options increased, as expected from consumer choice studies (Payne et al., 1993; see Table 2). The quadratic effect suggests, however, that those in the smallest and largest sets combined

Table 1: Effects of condition and mate-standard strength on choice strategy.

	Predictors				
Wald χ^2 **Exp(B) [95% CI Exp(B)]**	**Linear Set-size Contrast (C1)**[1]	**Quadratic Set-size Contrast (C2)**[2]	**Mate-Standard Strength (MSS)**	**C1 × MSS**	**C2 × MSS**
Satisficing *(noncomp, option)*	*1.76* 4.00 [.52 - 30.91]	*.00* 1.02 [.16 - 6.53]	*2.18* 2.09 [.79 - 5.53]	*2.90†* .21 [.04 - 1.26]	*.26* .66 [.14 - 3.24]
Most Confirming Dimensions *(comp, attrib)*	*3.08†* 2.02 [.92 - 4.44]	*5.86** .41 [.20 - .84]	*.11* .93 [.60 - 1.45]	*2.73†* 2.00 [.88 - 4.54]	*.15* .87 [.42 - 1.77]
Lexicographic *(noncomp, attrib)*	*4.01** 4.22 [1.03 - 17.32]	*.15* 1.28 [.36 - 4.55]	*.99* 1.45 [.70 - 3.04]	*1.94* .38 [.10 - 1.48]	*1.08* 1.88 [.57 - 6.21]
Elimination by Aspects *(noncomp, attrib)*	*5.94** 2.45 [1.19 - 5.04]	*.01* 1.03 [.51 - 2.08]	*.45* 1.16 [.76 - 1.77]	*.41* .78 [.36 - 1.68]	*.52* 1.29 [.64 - 2.59]
(Weighted) Averaging *(comp, option)*	*10.82*** .25 [.11 - .57]	*7.87*** 3.10 [1.41 - 6.85]	*.05* 1.06 [.67 - 1.68]	*1.94* .56 [.243 - 1.27]	*2.84†* 1.94 [.90 - 4.20]

Search strategy features: comp = compensatory, noncomp = noncompensatory; attrib = attribute-based, option = option-based.

[1] Coded -.707, 000, +.707, in ascending order.

[2] Coded +.408, -.816, +.408, in ascending order.

** $p < .01$, * $p < .05$, † $p < .10$.

were more likely to use WAV than were those in the ideal condition. A marginal interaction with MSS showed that this effect was qualified such that those with higher (versus lower) mate standards were less likely to use WAV in the ideal set-size condition (Wald $\chi^2 = 1.65$, $p = .20$, Exp[B] = .61), and more likely to use WAV in the other conditions combined (Wald $\chi^2 = 1.11$, $p = .29$, Exp[B] = 1.32), though neither effect was significant. While this finding is not consistent with our expectation of a linear increase in the use of WAV among those with higher (versus lower) mate standards, we believe the next set of results offer a potential explanation.

We examined the effects of our predictors on winnowing by looking at participants' use of the favorites folder. Binary logistic regression analysis of whether (+1) or not (0) participants utilized the folder revealed a significant main effect of the linear set-size contrast, such that, as the number of options increased, participants were more likely to draw upon the favorites folder (14% in the small condition, 69% in the ideal condition, and 91% in the large condition), Wald $\chi^2 = 26.42$, $p = .001$, Exp[B] = 20.37, 95% CI Exp[B] = 6.45 — 64.27; confirming prior research (Edwards & Fasolo, 2001; Payne et al., 1993). None of the other predictors explained use of the favorites folder, Wald $\chi^2 < 2.10$, $p > .35$. Of those who used it (N = 56), multiple linear regression analysis (2 outliers removed) showed a significant effect of the linear set-size condition contrast such that as the number of potential mates increased, participants entered more profiles into the folder: $M = 1.80$, $SD = .84$ (small), $M = 3.45$, $SD = 2.28$ (ideal), and $M = 4.45$, $SD = 2.08$ (large), $t(52) = 2.77$, $p = .008$, $pr = .37$. We also obtained a main effect of MSS: As participants' mate standards increased, the number of profiles put into the folder decreased, $t(52) = 2.01$, $p = .051$, $pr = -.28$. For all other predictors, $t(52) < 1.50$, $p > .14$.[5]

[5] We also note that the simple correlation between the number of options that participants put in their favorites folder (of those who used this folder at all, very few of whom were in the small condition) and choice satisfaction was .09, which was not close to significance. (Use of log and square-root transforms did not improve the correlation.)

Table 2: Use of choice strategies by set-size condition.[1, 2]

	Set-Size Condition		
	Small (4) (N=36)	**Ideal (24)** (N=32)	**Large (64)** (N=32)
Satisficing (Sat)	2 (6%)	3 (13%)	5 (16%)
Most Confirming Dimensions (MCD)	8 (22%)	18 (56%)	13 (41%)
Lexicographic (Lex)	3 (8%)	3 (9%)	9 (28%)
Elimination by Aspects (EBA)	14 (39%)	17 (53%)	22 (69%)
(Weighted) Averaging (WAV)	29 (81%)	10 (31%)	13 (41%)

[1] All 100 participants included: no outliers removed.

[2] The columns will not add to 100% because participants tended to use more than one choice strategy, especially as the number of options increased.

We believe these results provide a possible explanation for those concerning the relationship between MSS, condition, and the use of WAV, as they indicate that even though women with higher mate standards were no more likely than others to use the favorites folder, if they did use it, they put fewer profiles into it. Perhaps the pattern of strategy use observed in those with stronger mate standards (i.e., lesser use of Sat and greater use of MCD when confronted with extensive choice) may have enabled them to winnow the large set of options to such an extent that it made it easier to apply WAV in a second-stage analysis of their options, thereby making their use of WAV comparable to those in the small condition.

Of course, the preceding analyses are based on the self-reported use of choice strategies. Is there any evidence that such reports are valid? To answer this question, we turn to the data regarding the time it took participants to search and choose. Firstly, we expected to find that those reporting the use of WAV - no matter their condition - will have taken longer to search their assigned option sets, as conducting a search option-by-option and making trade-offs between those options is a time-consuming endeavor. To examine this hypothesis, we regressed minutes-per-profile (total number of minutes taken to search and choose divided by the number of profiles in the condition) on whether the participant claimed to have used WAV (three outliers removed). On average, participants who reported having used this search strategy spent more time exploring each profile (M = 1.26, SD = 1.03) than did those who did not claim to have used this strategy (M = .49, SD = .46), $t(95) = 4.68$, $p = .001$, $pr = .43$. On the other hand, we expected that participants reporting the use of the (jointly) noncompensatory, attribute-based strategies — i.e., the least cognitively demanding choice strategies — will have taken less time to conduct their search (versus those who did not report using such strategies), again, regardless of condition. To examine this idea, we ran two analyses similar to that for WAV, but this time looking at participants who reported using Lex (or not) and participants who reported using EBA (or not). If a participant claimed to have used Lex, she spent significantly fewer minutes-per-profile (M = .43, SD = .35) than if she had not adopted this strategy (M = .94, SD = .90; four outliers removed), $t(94) = -1.99$, $p = .049$, $pr = -.20$. Similarly, if a participant claimed to have used EBA, she spent significantly fewer minutes-per-profile (M = .68, SD = .71) than if she had not employed this strategy (M = 1.20, SD = 1.09; two outliers removed), $t(96) = -2.80$, $p = .006$, $pr = -.28$.

Also providing evidence for the validity of the self-reports is the results of an analysis wherein the number of self-reported strategies (sum of all strategies used) was regressed on the linear effect of set-size condition (contrast 1), the quadratic effect of set-size condition (contrast 2), MSS (centered), and the interactions between MSS and each of the two set-size contrasts (one outlier removed): The number of strategies increased linearly with the number of options viewed, $t(93) = 2.47$, $p = .041$, $pr = .21$. That is, participants claimed to have used more strategies as the number of potential mates increased. Such a finding is in line with the notion that choosers facing an extensive number of options use a se-

ries of search strategies in their efforts to winnow down the set to a more manageable size (Edwards & Fasolo, 2001; Payne et al., 1993).

4 Conclusion

As the world evolves, it seems likely that we will be confronted with ever more choice. Previous research has shown that an increase in choice makes choosing more difficult and can result in choice deferral or even avoidance (e.g., Iyengar & Lepper, 2000). Accordingly, one might expect the expansion of choice to yield negative consequences. This study adds to the literature indicating that humans are more adaptable than such theorizing suggests (Gigerenzer, Todd, and the ABC Group, 1999): We adjust to an increasing number of options by changing our decision-making strategies. This adjustment means we experience no differential affect or meta-cognition, whether we face the prospect of choosing among as few as four or among as many as 64 potential mates. Thus, strategy use is context-dependent in mate choice, just as it is in consumer choice (Bateson & Healy, 2005). Alternatively, perhaps the similar affect and meta-cognition experienced by those facing limited versus extensive choice is due to statistical chance: for this article reports the results of a single study. Still, the earlier study on which this one was based (Lenton et al., 2008) also found no significant influence of the number of options on mate choice satisfaction. Perhaps, then, these particular results are due to the particular choice context: mate choice. Unlike jams or even 401ks, for example, we venture to say that the average single person spends a significant amount of time considering the attributes that are important to them in a potential long-term mate. As we mentioned earlier, the distinctions between extensive and limited choice are fewer in important domains (Klayman, 1985), perhaps for this reason.

Our results also indicate that mate-standard strength may further moderate the effects of "too much choice" on the choice experience and choice strategy selection. People with higher mate standards — i.e., those whose exclusion criteria are more restrictive — prefer extensive choice and are more satisfied with the mate selected in this context. These findings indirectly challenge the idea that maximizers — because of their presumably higher standards — are more likely than satisficers to experience the downsides of too much choice (Schwartz et al., 2002). In other words, these results indicate that people with higher standards feel relatively content choosing from a large option set, though we don't know whether such contentment is warranted (i.e., whether making a choice from a large array of options in their best interest).

The marginal interactions between mate-standard strength and the number of options on some of the choice strategies provide preliminary support for the idea that people with higher mate standards, versus those with lower mate standards, prefer to use compensatory strategies when faced with extensive choice. Our findings suggest that people with high mate standards are not remarkably different from those with low mate standards with respect to the use of attribute-based search strategies when faced with option sets of various sizes. Such a finding is in accord with prior research showing that people generally prefer to use attribute-based ("dimensional") strategies, even in decision contexts that are better suited to option-based ("holistic") processing (Russo & Dosher, 1983), such as searching through on-line daters' profiles. Future research should use objectively-measured, as opposed to self-reported, choice strategy use (e.g., MouseWeb Lab), as well as idiosyncratic measures of mate-standard strength to confirm the obtained pattern of results. Nevertheless, the present research represents significant advancement in our understanding of *how* – not just *who* – we choose in this very important domain.

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Appendix: Strategies

Satisficing. I chose the *first* person I saw who met or exceeded some (but not necessarily all) of my most important standards for an ideal partner (e.g., If you decided to focus on a potential partner's parental status, humour, and age and ignored all other attributes, then you would have selected the first person you encountered who met or exceeded your standards with respect to these three attributes).

Most confirming dimensions. I chose the person who met or exceeded the highest number of my standards for an ideal partner (e.g., If you had 10 things you were looking for in an ideal partner, you selected the person who met or exceeded more of these than anyone else).

Lexicographic. I chose the person who best fulfilled my single most important criterion (e.g., if "a good job" was the most important attribute for your ideal partner to have, you should have chosen the person with the best job, despite other aspects of his profile).

Elimination by aspects. I eliminated people who were not acceptable on a given criterion (e.g., attractiveness), one criterion at a time (e.g. "I first eliminated anyone who did not meet my standards on attractiveness, of those remaining I eliminated anyone who did not meet my standards for education, etc.").

(Weighted) averaging. I looked at every single aspect of each person's profile and tried to calculate which person had the best overall profile in terms of my personal standards. I then chose that person.