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5   The crux of cognitive load: Constraining deliberate and effortful decision processes in

6   romantic jealousy

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Abstract

DeSteno, Bartlett, Salovey, and Braverman (2002) challenged the evidentiary support for the hypothesis of evolved sex differences in jealousy. They attribute this support emanating from studies forcing men and women to choose between sexual and emotional infidelity as generating more negative emotional responses to a methodological artifact. This attribution is based on the results of their study allegedly demonstrating that sex differences in jealousy emerge in the forced-choice response format only when participants employ deliberate and effortful decision processes but disappear when using automatic or simple decision processes. The present study offers and tests an alternative account of their results. Specifically, the participants were forced to employ a simple decision process by either a substantial time pressure or a jealousy-related word load or jealousy-unrelated digit-string load imposed on the participants while choosing between sexual and emotional infidelity as causing more jealousy. The sex differences predicted by the evolutionary hypothesis were found in the time pressure and word-load condition and they were attenuated in the digit-string condition. Additionally, only in the digit-load condition was sexual infidelity selected more frequently when it appeared as the first response option, indicating that the empirical basis of DeSteno et al.'s (2002) challenge of the evolutionary view of jealousy is in all likelihood attributable to a methodological artifact.

Key words: jealousy, sex differences; evolutionary psychology; evolved psychological mechanism; cognitive load

1.   Introduction

Several evolutionary psychologists (Buss, Larsen, Westen, & Semmelroth, 1992; Daly, Wilson, & Weghorst, 1982; Symons, 1979) proposed the hypothesis of a sex-specific evolved jealousy mechanism (EJM) because different infidelity types have recurrently threatened male and female reproductive success. Specifically, a woman's sexual infidelity deprives her mate of a reproductive opportunity and may burden him with years of investment in a genetically unrelated child. In contrast, a man's sexual infidelity does not burden his mate with unrelated children, but he may divert resources from his mate's progeny. This resource threat may be signaled by his level of emotional attachment to another female. As a consequence, men are predicted to be more concerned than women about a mate's sexual infidelity. Conversely, women are predicted to be more concerned than men about a mate's emotional infidelity.

An impressive body of research during the past 15 years has been primarily devoted to testing the hypothesis that men respond with stronger negative emotions than women to a mate's sexual infidelity whereas women respond with stronger negative emotions than men to a mate's emotional infidelity. Studies employing a forced-choice response format consistently supported the hypothesis (e.g., Buss et al., 1992; Buss et al., 1999; Buunk, Angleitner, Oubaid, & Buss, 1996; DeSteno & Salovey, 1996; Pietrzak, Laird, Stevens, & Thompson, 2002; Sagarin, Becker, Guadagno, Nicastle, & Millevoi, 2003). In contrast, studies using continuous ratings of the intensity of negative emotional responses elicited by emotional and sexual infidelity yielded less consistent results (e.g., Bohner & Wänke, 2004; DeSteno, Bartlett, Braverman, and Salovey, 2002; Edlund, Heider, Scherer, Farc, & Sagarin, 2006; Pietrzak et al., 2002; Sabini and Green, 2004, 2006; Sagarin et al., 2003; for reviews see Harris, 2003; Penke & Asendorpf, in press).

73   This lack of correspondence between the findings obtained with the forced-choice

74 response format and the continuous ratings of emotional intensity led DeSteno et al. (2002) to

75 question the validity of the empirical support for the evolutionary hypothesis of sex

76 differences in jealousy. These authors argue that the limitation of the emprirical support for

77 the evolutionary hypothesis to a single methodology always carries the risk of dealing with an

78 artifact of measurement. This possible limitation, "takes on greater weight when one considers

79 that the use of a forced-choice response format ... is known to induce different and more

80 effortful decision strategies in the production of preference judgments" (DeSteno et al., 2002,

81 p. 1105). As a consequence, "the previous findings used to support the evolutionary view

82 might not represent differential jealousy resulting from sex-specific evolved modules, but a

83 methodological artifact resulting from a specific and effortful decision strategy invoked by the

84 format of the question" (DeSteno et al., 2002, p. 1105).

85

86   DeSteno et al. (2002) proposed three assumptions that in combination try to partially

87 reconcile the diverging results obtained with the two response formats. (1) Men and women

88 actually share the same default distress response that is greater to sexual than emotional

89 infidelity. (2) Continuous ratings invariably elicit rather simple decision strategies which

90 revert to this default distress response towards sexual infidelity. (3) The forced-choice

91 response format invariably generates deliberate and effortful considerations of the possible

92 trade-offs of the two events which asymmetrically affect men's and women's decisions: The

93 output of these trade-off considerations does not affect men's final decision inasmuch that

94 most men continue insisting on their default distress response towards sexual infidelity. In

95 complete contrast, the same trade-off considerations have an extremely profound impact on

96 women's choices inasmuch that the vast majority of women uses the output of these

97 considerations to override their default distress response they share with men and now claims

98 that emotional infidelity generates more intense jealousy feelings. This presumed asymmetry

99   in the influence of the deliberate and effortful trade-off considerations on men's and women's

100   responses is finally made responsible for a method-specific sex difference in jealousy

101   obtained with the forced-choice response format.

102

103   DeSteno et al. (2002, Study 2) tested these assumptions in an experiment in which the

104   participants based their decision in the forced-choice response format either on deliberate and

105   effortful or automatic (simple) decision processes. Specifically, in the deliberate and effortful

106   condition, the participants were instructed to carefully consider their response before choosing

107   between sexual and emotional infidelity. In the automatic condition, the deliberate and

108   effortful decision processes were supposedly suppressed by a cognitive load in terms of a

109   digit-string memory task imposed on the participants while choosing between the two

110   response alternatives, thus forcing the participants to make their choice using simple decision

111   processes.

112

113   DeSteno et al. (2002) consider their cognitive load study a crucial test contrasting their

114   assumptions with the evolutionary hypothesis of jealousy. They argue that the operation of the

115   EJM as an evolved cognitive mechanism does not depend on deliberate and effortful decision

116   processes but necessarily operates automatically. Thus, when forcing the EJM to operate

117   automatically by imposing a cognitive load in terms of a digit-string memory task while

118   choosing between the two response alternatives, the sex differences predicted by the

119   evolutionary view of jealousy should emerge unmasked. In contrast, their assumptions predict

120   that the majority of both men and women under cognitive load engage in simple decision

121   strategies and select sexual infidelity in accordance with their shared default distress response

122   towards this infidelity type. Sex differences should emerge only when decisions in the forced-

123   choice response format are based on deliberate and effortful decision processes which lead

124   women but not men to turn towards emotional infidelity. As predicted by DeSteno et al.

125   (2002), in the deliberate and effortful condition 96% of the men but only 36% of the women

126   selected sexual jealousy. In contrast, in the automatic condition, the majority of not only the

127   men but also of the women chose sexual infidelity (92% and 65%, respectively). Note,

128   however, that contrary to DeSteno et al.'s (2002) claim that "the sex difference on the forced-

129   choice measure disappeared under conditions of cognitive constraint," (p. 1103) which has

130   been repeated by DeSteno, Bartlett, and Salovey (2006; see also Berman and Frazier, 2005;

131   Harris, 2003, for the same claim), a reanalysis of their data shows that the sex difference in

132   the cognitive load condition was merely attenuated but did not completely disappear

133   inasmuch as still significantly more women than men chose emotional infidelity (35% vs.

134   8%), $\chi^2 = 6.20$; df = 1; N = 57, $p = .013$ (see also Sagarin, 2005).

135

136   The goal of the present study is to test an alternative account of the results of DeSteno

137   et al.'s (2002) cognitive load study. According to this alternative account, their results are

138   attributable to an artifact in measurement that is based on a conceptual misapprehension and

139   methodological peculiarities boosting decision processes which are irrelevant for the EJM.

140   Concerning the conceptual misapprehension, being considered an evolved information

141   processing mechanism does not necessarily imply that the EJM operates automatically. As

142   recently pointed out by Barrett, Frederick, Haselton, and Kurzban (2006), many evolved

143   mechanisms including the EJM probably depend on specific input (e.g., imagining a mate's

144   emotional and/or sexual infidelity) from deliberate and effortful processes in order to operate

145   properly. The digit-string memory task which is completely unrelated to the EJM probably

146   interfered with or suppressed these deliberate and effortful processes and thus prevented the

147   availability of the input that the jealousy mechanism needs to come up with a valid decision.

148

149   Additionally, the requirements of the digit-string memory task together with

150   methodological peculiarities of the cognitive load condition might have led the participants to

151   adopt decision strategies that are not guided by the operation of the EJM and thus do not

152   contribute to our understanding of how the EJM works. Specifically, the participants could

153   reproduce the digits upon a decision in a forced-choice scenario or after 10 seconds without a

154   response. Thus, in order to do well on the memory task, the participants might have used

155   rather simple decision strategies to speed up with the forced-choice task to reproduce the

156   digits as quickly as possible. A first methodological peculiarity that might have promoted the

157   use of a simple decision strategy especially in the infidelity scenario concerns the description

158   of the pertinent two response alternatives. The description of the response alternatives in the

159   infidelity scenario (the third of five forced-choice scenarios) and hence the required reading

160   time was considerably longer than in any of the other scenarios. In fact, it consisted of 68

161   letters ("had passionate sex with someone else; formed a deep emotional bond to someone

162   else"), whereas the length of the other scenarios varied between only 19 and 36 letters (e.g.,

163   "ignored me; insulted me", "lied to me; stole from me"). The time for reading the response

164   alternatives and for making a decision was confined to 10 seconds at most for all scenarios.

165   Thus, the comparatively high cognitive demands imposed by the lengthy infidelity scenario

166   might have particularly promoted the use of a simple decision strategy, namely to take the

167   first response alternative. However, a second methodological peculiarity is that as described

168   by DeSteno et al. (2002) the first response alternative in the infidelity scenario happened to be

169   always sexual infidelity. In this context, it is also informative that none of the men (for whom,

170   according to the evolutionary hypothesis of jealousy, the first response alternative matched

171   their initial response tendency) but 6 out of 37 women (for whom, according to the

172   evolutionary hypothesis, the first response alternative conflicted with their initial response

173   tendency) failed to make a decision within the allotted 10 seconds.

174

175   In sum, the jealousy unrelated digit-string memory task possibly interfered with the

176   proper functioning of the domain-specific EJM in the infidelity trial. Instead, this task might

177   have promoted a simple, jealousy-irrelevant decision strategy to select the first of the two

178   response alternatives. The first response alternative was always sexual infidelity. The purpose

179   of the present research is to test this alternative interpretation and its implications. The basic

180   idea was to manipulate the cognitive load task such that its content was either completely

181   unrelated to jealousy (i.e., the original digit-string memory task) or was related to jealousy

182   (i.e., a memory task for relationship-oriented words including those referring to infidelity).

183   Additionally, the participants in the no-load control condition simply answered the forced-

184   choice questions. However, in contrast to DeSteno et al.'s no-load control condition with

185   unlimited time for the preference judgments, decisions in the present no-load condition had to

186   be made also within the same 10 seconds time limit as the cognitive load conditions. Thus,

187   although the EJM is not distracted by an additional load, the 10 seconds time limit also

188   imposes a noticeable time pressure. In fact, Schützwohl (2004) reported considerably longer

189   decision times in the forced-choice paradigm without an explicit time limit than the allotted

190   10 seconds as women and men were found to need on average 16.4 seconds and 20.8 seconds,

191   respectively, for their decision.

192

193   According to DeSteno et al.'s (2002) assumptions, in both cognitive load conditions

194   the majority of men and women should select sexual infidelity as generating more jealousy,

195   because both manipulations of cognitive load enhance the use of simple, automatic decision

196   strategies which should rely on men's and women's shared default distress response towards

197   sexual infidelity. The same result is expected in the no-load condition as the considerable time

198   pressure should also prevent deliberate and effortful decision processes. In contrast, the

199   evolutionary hypothesis predicts sex-specific differences in the no-load condition, because of

200   the absence of processes interfering with the proper functioning of the EJM. In fact, the time

201   pressure should urge men to rely on their initial response tendency towards sexual infidelity

202   and women to rely on their initial response tendency towards emotional infidelity (Penke &

203 Asendorpf, in press; Schützwohl, 2004). Furthermore, the word-load condition allowed to

204 investigate whether relationship-oriented words including those referring to infidelity, which

205 might not interfer with the functioning of the EJM as much as the digit-string load, also result

206 in the effect documented by DeSteno et al. (2002). Finally, based on these considerations,

207 sexual infidelity should be selected more frequently if this response alternative appears as the

208 first response alternative in the digit-load (and possibly in the word-load) condition but not in

209 the no-load condition.

210

211 **2.   Method**

212

213 *2.1   Procedure*

214 Unless noted otherwise, the procedure followed strictly that of DeSteno et al. (2002, Study 2).

215 On arrival, the participants were assigned randomly to either the no-load, digit-load or word-

216 load condition and then seated in front of a computer screen. The participants were informed

217 that the experiment was designed to assess their responses to different types of actions by

218 romantic partners. All subsequent instructions, measures, and forced-choice responses were

219 presented and collected using Experimental Runtime Systems (BeriSoft Corporation).

220

221   The participants were first instructed to think of a committed romantic relationship in

222 which they had previously been involved, are currently involved, or would like to be

223 involved. They were then informed that they would be presented with a series of questions

224 that would require them to select which of two actions, if engaged in by their romantic

225 partner, would elicit more negative emotions. In contrast to DeSteno et al. (2002, Study 2),

226 the participants were not simply asked for the general level of upset, but instead asked for a

227 specific emotion in each scenario. In the critical trial, following their own recommendation,

228 the participants were asked specifically for jealousy in order "to asses the impact of these

229   events [i.e., sexual vs. emotional infidelity] on the more complex emotional experience of

230   jealousy " (DeSteno et al., 2002, p. 1105). At this point, the participants in the digit- and

231   word-load conditions received one of two sets of instructions based on their group

232   assignment.

233

234   *2.2   Manipulations*

235   The participants in the cognitive load conditions were informed that the experimenters were

236   interested in how people make relationship-relevant judgments when they are distracted. To

237   simulate distraction, they would be asked to remember a string of digits (words, respectively)

238   at the same time that they were responding to a series of preference questions. Participants

239   were told that a string of seven digits (five words) would appear on the screen before each

240   question. They would then have to answer the preference question concerning the actions of a

241   relationship partner, immediately after which they would have to recall the digits (the words)

242   that had preceded the question. To guard against strategies involving extended rehearsals over

243   long periods of time, participants were told that they would have 10 seconds to answer each

244   preference question. The participants in the no-load condition were informed about the time

245   allotted for each decision. In addition, all participants were told that it was extremely

246   important to provide the most accurate answer possible to both the recall and preference

247   questions.

248

249   The experiment consisted of two additional practice trials followed by the five trials

250   used by DeSteno et al. (2002). After the completion of the two practice trials, participants

251   were asked to notify the experimenter if they were confused by the tasks. In the cognitive load

252   conditions, each trial started with a note on the screen to start a trial by pressing the space bar.

253   After the key press, a string of seven randomly selected digits (five words randomly selected

254   from a list of 30 words; for the complete list of words see the Appendix) appeared on the

255   screen for 3 seconds. Five words were used because a pretest revealed that more words

256   strained the participants. The digits (words) were then followed by a preference question.

257   Upon a response, or a 10 second duration without a response, the participants were asked to

258   recall the digits (words). No feedback was provided concerning the accuracy of their

259   response.

260

261   *2.3   Jealousy measure*

262   This measure consisted of five questions (one target and four distractors). Each question was

263   accompanied by two response alternatives. The five questions were presented in the following

264   order: (a) It would displease me more, if my partner: was rude to my family, was rude to my

265   friends; (b) It would hurt me more, if my partner: lied to me, stole from me; (c) It would make

266   me more jealous, if my partner: had passionate sex with someone else, formed a deep

267   emotional bond to someone else; (d) It would disappoint me more, if my partner: forgot my

268   birthday, forgot our anniversary; (e) It would hurt me more, if my partner: insulted me,

269   ignored me. The position of the two response alternatives in the jealousy question was

270   counterbalanced across the participants' sex and conditions. After the completion of the last

271   memory trial, the participants in the cognitive load conditions were asked to indicate on a 10

272   point rating scale how difficult the memory task had been. The rating scale ranged from 1

273   (*very easy*) to 10 (*very difficult*).

274

275   *2.4   Participants*

276   A total of 308 students (153 men and 155 women) of various disciplines at the University of

277   Bielefeld participated in this study. Fifty-one participants (6 in the no-load, 22 in the word-

278   load and 23 in the digit-load condition) could not be included in the ensuing analyses because

279   they failed to answer the jealousy question within the allotted time. This loss of 20% of the

280   participants as compared to 11% in the DeSteno et al. (2002) study is presumably owed to the

281   fact that the German language is more long winded than the English language. However, this

282   loss was accepted for the sake of an as exact replication of their study as possible.

283   Nevertheless, the remaining sample size is still considerably larger than that in the DeSteno et

284   al. study. The resulting sample consisted of 257 individuals (126 men and 131 women) who

285   were unpaid for their participation. Their age ranged from 20 to 35 years (M = 23.9; SD =

286   3.5).

287

288   **3.   Results**

289

290   *3.1   Difficulty of memory task*

291   A two-way ANOVA of the difficulty ratings of the memory task with sex and type of

292   cognitive load (digits vs. words) as between-subjects factors yielded a marginally significant

293   main effect for cognitive load type, $F(1, 175) = 2.84$, $p = .09$, partial $\varepsilon^2 = .016$, indicating that

294   the word memory task was rated marginally more difficult than the digit memory task (8.33

295   vs. 7.99). The interaction effect was also marginally significant, $F(1, 175) = 3.65$, $p = .058$,

296   partial $\varepsilon^2 = .020$. Women judged the word and digit memory task equally difficult (8.14 vs.

297   8.19), $t(90) = 0.15$, $d = .03$. In contrast, men rated the word memory task significantly more

298   difficult than the digit memory task (8.52 vs. 7.71), $t(85) = 2.80$, $p = .006$, $d = .58$.

299

300   **Insert Table 1 about here**

301

302   *3.2   Forced choice*

303   The mean percentages of women and men selecting sexual infidelity in the no-load, the word-

304   load and the digit-load condition depending on the position of the sexual infidelity response

305   option are presented in Table 1. In each condition, more men than women selected sexual

306   infidelity as generating more jealousy. Overall, this sex difference was highly significant, $\chi^2 =$

307   17.25; df = 1; N = 257, $p < .001$, which represents a moderate to fairly large effect size

308   (Hasselblad & Hedges, 1995), $d = .62$. However, the sex difference was significant in the no-

309   load and the word-load condition, $\chi^2 = 8.69$; df = 1; N = 78, $p = .003$, $d = .77$, and $\chi^2 = 6.05$; df

310   = 1; N = 90, $p = .01$, d = .67, respectively, but only marginally significant in the digit-load

311   condition, $\chi^2 = 3.53$, df = 1; N = 89, $p = .06$, d = .48. Moreover, only in the digit-load

312   condition was sexual infidelity selected significantly more frequently when it appeared as the

313   first response option, $\chi^2 = 4.27$; df = 1; N = 89, $p = .039$, $d = .54$ (see Table 1). In both the no-

314   load and the word-load condition, the selection of sexual infidelity was unaffected by the

315   position of sexual infidelity as first or second response option, $\chi^2 = 0.0$; df = 1; N = 78, and χ^2

316   = 1.1; df = 1; N = 90, ps > .29.

317

318   Comparisons across load conditions separately for men and women revealed that

319   men's but not women's choices were differentially affected by how deliberate and effortful

320   decision processes were constrained, $\chi^2 = 6.20$; df = 2; N = 126, $p = .045$ and $\chi^2 = 2.59$; df =

321   2; N = 131, $p > .27$, respectively. Specifically, as shown in Table 1 significantly more men in

322   the no-load condition than in either the word-load or digit-load condition selected sexual

323   infidelity as causing more jealousy, $\chi^2 = 5.27$; df = 1; N = 85, $p = .022$, $d = .56$, and $\chi^2 = 4.11$;

324   df = 1; N = 80, $p = .043$, $d = .51$, respectively. Men's choices in the word-load and digit-load

325   did not significantly differ, $\chi^2 = .05$; df = 1; N = 87, $p > .80$, $d = .05$. In contrast, in each load

326   condition, the clear majority of women select emotional infidelity as causing more jealousy

327   (see Table 1).

328

329   **4.   Discussion**

330   The sex differences in jealousy predicted by the evolutionary hypothesis were significant in

331   the no-load and word-load condition and were attenuated in the digit-load condition.

332   Furthermore, only in the digit-load but not in the no-load and the word-load condition was

333   sexual infidelity selected significantly more frequently if it appeared as the first response

334   option. Additionally, the time pressure in the absence of any distracting tasks in the no-load

335   condition resulted in the most pronounced sex differences with the majority of men selecting

336   sexual infidelity. This is revealing as in the word-load and digit-load conditions as well as in

337   previous forced-choice studies allowing unrestricted decision times with German samples

338   (Buunk et al. 1996; Schützwohl, 2004), the majority of men selected emotional infidelity.

339

340   Taken together, the present results raise serious doubts about the conceptual and

341   methodological adequacy of the procedure employed by DeSteno et al. (2002) to test the

342   functioning of the sex-specific EJM under conditions that enhance the use of automatic

343   decision strategies. Rather, it suggests that the findings of DeSteno et al. (2002) are, in all

344   likelihood, attributable to a methodological artifact: Their findings can be explained by

345   assuming that their digit-load condition led men and women alike to adopt a decision strategy

346   that is irrelevant to the functioning of the EJM and that favored the selection of the first

347   response option which was sexual infidelity. Additionally, the present findings did not reveal

348   any support for their assumption that men and women share the same default distress response

349   towards sexual infidelity. In fact, despite the severe constraints on the decision processes in

350   each condition which should promote simple decision strategies relying on the default distress

351   response towards sexual infidelity, women clearly and consistently preferred emotional

352   infidelity across all conditions. This finding is also difficult to reconcile with DeSteno et al.'s

353   central assumption of an asymmetrical effect of different experimental conditions on men's

354   and women's final decisions. Rather, contrary to DeSteno et al.'s assumption it appears that

355   women were less susceptible than men to influences of task demands on their decisions.

356   Finally, the exceptionally high percentage of men selecting sexual infidelity in their cognitive

357   load study (92% and 96% in the load- and no-load condition, respectively) sets it distinctively

358   apart from dozens of studies (including their own Study 1) reporting that approximately 40%

359   to 60% of the men select sexual infidelity (cf. Harris, 2003). This remarkable deviation in

360   men's decisions suggests additional methodological peculiarities that artificially inflated the

361   percentage of men selecting sexual infidelity, thus undermining the reliability of these

362   findings.

363

364   In addition to these failures to support DeSteno et al.'s assumptions, Schützwohl

365   (2004) provided evidence questioning the adequacy of their assumption that the forced-choice

366   response format invariably induces elaborate decision strategies. In this study briefly

367   mentioned earlier, unbeknown to the participants, decision times were assessed in the

368   standard forced-choice question as an indicator of the elaborateness of the pertinent decision

369   processes. It was found that women selecting emotional infidelity made their decision

370   significantly faster than women selecting sexual infidelity. Analogously, men selecting sexual

371   infidelity made their decision significantly faster than men selecting emotional infidelity.

372   From an evolutionary view, these findings suggest that women selecting emotional infidelity

373   and men selecting sexual infidelity simply relied on their sex-specific initial response

374   tendency activated by the respective EJM, whereas both women opting for sexual infidelity

375   and men opting for emotional infidelity needed to engage in more elaborate decision

376   processes to override their initial response tendency. Thus, contrary to basic assumptions of

377   DeSteno et al. (2002), (1) the forced-choice response format apparently does not invariably

378   induce the same elaborate decision processes in all participants; (2) less elaborate decision

379   strategies do not reveal same-sex default distress responses towards sexual infidelity but

380   instead sex-specific initial response tendencies for men (sexual infidelity) and women

381   (emotional infidelity); (3) suggesting an asymmetry in decision strategies in the forced-choice

382   response format which is not associated with the participants' sex as implied by DeSteno et al.

383   (2002) but which within each sex is associated with the final choice (Schützwohl, 2004).

384   Moreover, Schützwohl (2005) reported that men were significantly faster than women in

385   deciding whether infidelity cues would elicit either a first pang of jealousy or intolerable

386   jealousy if these cues were more diagnostic of sexual jealousy. Conversely, women made

387   these decisions significantly more rapidly than men for cues more diagnostic of emotional

388   infidelity. Together with the pronounced sex differences in particular in the present no-load

389   condition with time pressure but without distraction, these findings suggest that the sex

390   differences obtained with the forced-choice task are due to fast, spontaneous decisions rather

391   than long deliberation (see also Penke & Asendorpf, in press).

392

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453

454   Appendix

455   The words used in the word-load condition.

456

tender	crisis
kiss	infidelity
honest	dispute
faithfulness	sloppy
reliable	separation
love	narrow minded
lust	stingy
forgive	dominant
generous	selfish
romantic	aggressive
respect	impatient
passionate	authoritarian
spontaneous	deceit
amusing	capricious
embrace	disgrace oneself

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