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

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26 **Abstract**

27 DeSteno, Bartlett, Salovey, and Braverman (2002) challenged the evidentiary support for the  
28 hypothesis of evolved sex differences in jealousy. They attribute this support emanating from  
29 studies forcing men and women to choose between sexual and emotional infidelity as  
30 generating more negative emotional responses to a methodological artifact. This attribution is  
31 based on the results of their study allegedly demonstrating that sex differences in jealousy  
32 emerge in the forced-choice response format only when participants employ deliberate and  
33 effortful decision processes but disappear when using automatic or simple decision processes.  
34 The present study offers and tests an alternative account of their results. Specifically, the  
35 participants were forced to employ a simple decision process by either a substantial time  
36 pressure or a jealousy-related word load or jealousy-unrelated digit-string load imposed on the  
37 participants while choosing between sexual and emotional infidelity as causing more jealousy.  
38 The sex differences predicted by the evolutionary hypothesis were found in the time pressure  
39 and word-load condition and they were attenuated in the digit-string condition. Additionally,  
40 only in the digit-load condition was sexual infidelity selected more frequently when it  
41 appeared as the first response option, indicating that the empirical basis of DeSteno et al.'s  
42 (2002) challenge of the evolutionary view of jealousy is in all likelihood attributable to a  
43 methodological artifact.

44

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

47

## 48 **1. Introduction**

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

59

60 An impressive body of research during the past 15 years has been primarily devoted to  
61 testing the hypothesis that men respond with stronger negative emotions than women to a  
62 mate's sexual infidelity whereas women respond with stronger negative emotions than men to  
63 a mate's emotional infidelity. Studies employing a forced-choice response format consistently  
64 supported the hypothesis (e.g., Buss et al., 1992; Buss et al., 1999; Buunk, Angleitner,  
65 Oubaid, & Buss, 1996; DeSteno & Salovey, 1996; Pietrzak, Laird, Stevens, & Thompson,  
66 2002; Sagarin, Becker, Guadagno, Nicastle, & Millevoi, 2003). In contrast, studies using  
67 continuous ratings of the intensity of negative emotional responses elicited by emotional and  
68 sexual infidelity yielded less consistent results (e.g., Bohner & Wänke, 2004; DeSteno,  
69 Bartlett, Braverman, and Salovey, 2002; Edlund, Heider, Scherer, Farc, & Sagarin, 2006;  
70 Pietrzak et al., 2002; Sabini and Green, 2004, 2006; Sagarin et al., 2003; for reviews see  
71 Harris, 2003; Penke & Asendorpf, in press).

72

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 empirical 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 interfere 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 assess 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  $\epsilon^2 = .016$ , 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  $\epsilon^2 = .020$ . 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  $\chi^2$   
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

Author note

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