The psychology of risk and power: Power desires and sexual choices

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One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines.

One sentence clearly stating the **general problem** being addressed by this particular study. One sentence summarizing the main result (with the words "here we show" or their equivalent).

Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

One or two sentences to put the results into a more **general context**.

Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

Keywords: keywords Word count: X

Introduction 16 Methodology

Every day individuals make decisions be they mundane such 17 as which cereal to eat in the morning to the more complex of which job should they accept. The consequences for making 18 those decisions can be equally complex. Some decisions are 19 more difficult to quantify and understand while others can be 20 relatively easy like choosing what cereal to eat in the morn-21 ing. However, some are increasingly more difficult to model. 22 For example, two adult males (or a man and a woman) who 23 are intending to have sex must decide whether or not to have 24 sex with or without a condom. The consequences can have 25

lasting effects depending on what the couple choose.

13 Issue

4 Spitefulness

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Add complete departmental affiliations for each author here. ³² Each new line herein must be indented, like this line.

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The authors made the following contributions. Ithurburn, Andrew: Conceptualization, Writing - Original Draft Preparation, Writing - Review & Editing; Moore, Adam: Writing - Review & Editing.

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Methods

Participants: Participants were a convenience sample of 82 (Mage = 26.14, SD = 8.65) individuals from Prolific Academic crowdsourcing platform ("www.prolific.co"). Requirements for participation were: (1) be 18 years of age or older and (2) and as part of Prolific Academics policy, have a prolific rating of 90 or above. Participants received £4 or £8 an hour as compensation for completing the survey. The University of Edinburgh's Research Ethics Committee approved all study procedures (approval reference number: 330-1920/1).

Materials:

Demographic Questionnaire: Prior to the psychometric scales, participants are asked to share their demographic characteristics (e.g., age, gender, ethnicity, ethnic origin, and educational attainment).

Dominance, Prestige, and Leadership Orientation. The 18item Dominance, Prestige, and Leadership scale [DoPL; Suessenbach et al. (2019)], is used to measure dominance, prestige, and leadership orientation. Each question corresponds to one of the three domains. Each domain is scored across six unique items related to those domains (e.g., "I relish opportunities in which I can lead others" for leadership) rated on a scale from 0 (Strongly disagree) to 5 (Strongly 42

agree). Internal consistency reliability for the current sample 93 is \$

Spitefulness Scale. The Spitefulness scale (Marcus et al., 43 2014) is a measure with seventeen one sentence vignettes to assess the spitefulness of participants. The original spite-97 fulness scale has 31-items. In the original Marcus and col-98 46 leagues' paper, fifteen were removed. For the present study 99 47 however, 4-items were removed because they did not meet 100 48 the parameters for the study i.e., needed to be dyadic, more 101 personal. Three reverse scored items from the original thirty-102 50 one were added after meeting the requirements. Example 103 51 questions included, "It might be worth risking my reputa-104 tion in order to spread gossip about someone I did not like."105 53 and, and "Part of me enjoys seeing the people I do not like fail₁₀₆ 54 even if their failure hurts me in some way." Items are scored₁₀₇ 55 on a 5-point scale ranging from 1 ("Strongly disagree") to 108 5 ("Strongly agree"). Higher spitefulness scores represent₁₀₉ 57 higher acceptance of spiteful attitudes.

Sexuality Self-Esteem Subscale: The Sexuality Self-Esteem¹¹¹ subscale (SSES; (Snell & Papini, 1989)) is a subset of the 112 Sexuality scale that measures the overall self-esteem of par-113 61 ticipants. Due to the nature of the study, the sexuality sub-114 62 scale was chosen from the overall 30-item scale. The 10-115 63 items chosen reflected questions on the sexual esteem of par-116 ticipants on a 5-point scale of +2 (Agree) and -2 (Disagree).117 65 For ease of online use the scale was changed to 1 ("Dis-118 66 agree") and 5 ("Agree"), data analysis will follow the sex-119 uality scale scoring procedure. Example questions are, "I am a good sexual partner," and "I sometimes have doubts about 120 69 my sexual competence." Higher scores indicate a higher ac-70 ceptance of high self-esteem statements.

Sexual Jealousy Subscale: The Sexual Jealousy subscale123 ((Worley & Samp, 2014)) are 3-items from the 12-item Jeal-124 73 ousy scale. The overall jealousy scale measures jealousy in 125 74 friendships ranging from sexual to companionship. The 3-126 75 items are "I would worry about my partner being sexually127 unfaithful to me." "I would suspect there is something go-77 ing on sexually between my partner and their friend." and,128 78 "I would suspect sexual attraction between my partner and 129 79 their friend." The items are scored on a 5-point scale ranging 130 from 1 ("Strongly disagree") to 5 ("Strongly agree"). Higher, 31 81 scores indicate a tendency to be more sexually jealous. 82

Sexual Relationship Power Scale: The Sexual Relation-133
ship Power Scale (SRPS; (Pulerwitz et al., 2000)) is a
23-item scale that measures the overall power distribution134
in a sexually active relationship. The SRPS is split into
the Relationship Control Factor/Subscale (RCF) and the135
Decision-Making Dominance Factor/Subscale (DMDF). The136
RCF measures the relationship between the partners on their137
agreement with statements such as, "If I asked my partner138
to use a condom, he [they] would get violent." and "I feel139
trapped or stuck in our relationship." Items from the RCF are140

scored on a 4-point scale ranging from 1 ("Strongly agree") to 4 ("Strongly disagree"). Lower scores indicate an imbalance in the relationship where the participant indicates they believe they have less control in the relationship.

The DMDF measures the dominance level of sexual and social decisions in the relationship. Example questions include, "Who usually has more say about whether you have sex?" and "Who usually has more say about when you talk about serious things?" Items on the DMDF are scored on a 3-item scale of 1 ("Your Partner"), 2 ("Both of You Equally"), and 3 ("You"). Higher scores indicate more dominance by the participant in the relationship.

Scenario Realism Question: Following Worley and Samp in their 2014 paper on using vignettes/scenarios in psychological studies, a question asking the participant how realistic or how much they can visualize the scenario is. The 1-item question is "This type of situation is realistic." The item is scored on a 5-point scale of the participants agreement with the above statement, 1 ("Strongly agree") to 5 ("Strongly disagree"). Higher scores indicate disagreement with the statement and reflects the belief that the scenario is not realistic.

Spiteful Vignettes: After participants complete the above scales, they are presented with 10-hypothetical vignettes. Each vignette was written to reflect a dyadic or triadic relationship with androgynous names to control for gender. Five vignettes have a sexual component while five are sexually neutral. An example vignette is,

"Casey and Cole have been dating for 6 years. A year ago, they both moved into a new flat together just outside of the city. Casey had an >affair with Cole's best-friend. Casey had recently found out that they had an STI that they had gotten from Cole's best-friend. Casey and >Cole had sex and later Cole found out they had an STI."

For each vignette, the participant is asked to rate each vignette on how justified they believe the primary individual, Casey in the above, is with their spiteful reaction. Scoring ranges from 1 ("Not justified at all") to 5 ("Being very justified"). Higher scores overall indicate higher agreement with spiteful behaviors.

Procedure:

Participants were recruited on Prolific Academic. Participants must be 18-years of age or older, restriction by study design and Prolific Academic's user policy. The published study is titled, "Moral Choice and Behavior." The study description follows the participant information sheet including participant compensation. Participants were asked to accept

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their participation in the study. Participants were then auto-171 matically sent to the main survey (Qualtrics, Inc.).

Once participants accessed the main survey, they were pre-172 143 sented with the consent form for which to accept they re-173 sponded with selecting "Yes." Participants were then asked 174 145 to provide demographic characteristics such as gender, eth-175 146 nicity, and educational attainment. Participants would then 176 147 complete in order, the spitefulness scale, the sexual relation-177 ship power scale, the sexual jealousy subscale, and sexuality 178 149 self-esteem subscale. Next, participants were presented ten 179 150 vignettes where they were instructed to rate on the level of 180 151 justification for the action carried out in the vignette. Af-181 152 ter each vignette, participants would rate the realism of the 182 153 scenario. Upon completion of the survey (median comple- $^{\rm 183}$ 154 tion time ####17 minutes and 5 seconds), participants were 184 155 shown a debriefing message and shown the contact informa-185 tion of the Primary Investigator (Andrew Ithurburn). Partici-186 157 pants were then compensated at £8/hr. via Prolific Academic. 187 158

Data Analysis:

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Demographic characteristics were analyzed using a one-way₁₉₂ analysis for continuous variables (age) and Chi-squares tests₁₉₃ for categorical variables (sex, ethnicity, ethnic origin, and ed-₁₉₄ ucational attainment). Means and standard deviations were₁₉₅ calculated for the surveys along with correlational analyses₁₉₆ (e.g., spitefulness, SESS, SRPS, SJS). Bayesian multilevel models were used to test differences between levels of justifications of vignettes that are either sexually or non-sexually vindictive in behavior. Model 1

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169 Results

Discussion

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