

# Supplementary methods

## 1. Menstrual cycle survey

### Study 1 (*translated from German*)

First, we would like to ask you to for some information about your menstrual cycle. If you did not menstruate in the last three months, please directly proceed to the next page.

#### **When was the first day of your last menstruation?**

Please select the according date. If you need a calendar to answer this question, please click on the question mark above.

<i>Day</i>	<i>Month</i>
[please select]	[please select]
1	January
2	February
3	March
...	...
30	November
31	December

**How long did your menstrual cycle last on average during the last six months (This does not refer to the length of menstrual bleeding, but the number of days between the first day of menstruation until the last day before the onset of the next menstruation)?**

\_\_\_ days.

**How long did your shortest menstrual cycle last during the last six months (This does not refer to the length of menstrual bleeding, but the number of days between the first day of menstruation until the last day before the onset of the next menstruation)?**

\_\_\_ days.

**How long did your longest menstrual cycle last during the last six months (This does not refer to the length of menstrual bleeding, but the number of days between the first day of menstruation until the last day before the onset of the next menstruation)?**

\_\_\_ days.

**Are you currently taking hormonal contraceptives?**

- [1] Yes, I take the contraceptive pill.
- [2] Yes, I use the hormone spiral.
- [3] Yes, I use the three-month injection.
- [4] Yes, I use another method of hormonal birth control.
- [5] No.

**Have you been taking hormonal contraceptives in the last six months?**

- [1] Yes, I took the contraceptive pill.
- [2] Yes, I used the hormone spiral.
- [3] Yes, I used the three-month injection.
- [4] Yes, I used another method of hormonal birth control.
- [5] No.

**Are you currently pregnant?**

- [1] Yes.
- [2] No.

**Are you currently breastfeeding?**

- [1] Yes.
- [2] No.

**Are you currently or have you already been going through menopause?**

- [1] Yes.
- [2] No.

**Have you been taking hormonal supplements other than hormonal contraceptives in the last six months?**

- [1] Yes.
- [2] No.

## Study 2

Since the purpose of this study is to investigate the influence of hormones on social decision making, we would be very happy if you could answer some questions regarding your contraception, menstrual cycle and further factors which can influence your hormonal state on the following pages. On the last page of the survey, we will also ask you for some (anonymous) demographic information about yourself.

**Are you pregnant or have you given birth in the last 12 months?**

[1] Yes.

[2] No.

**Are you currently or have you already been going through menopause?**

[1] Yes.

[2] No.

**Have you been taking hormonal supplements other than hormonal contraceptives in the last six months?**

[1] Yes.

[2] No.

**In the last six months, how much did the onset of your menstruation vary counted from the mean duration of your menstrual cycle?**

! Please note: menstrual cycle= *first day of your menstruation until last day before beginning of your next menstruation*

[1] 0 days

[2] +/- 1 day

[3] +/- 2 days

[4] +/- 3 days

[5] +/- 4 days

[6] +/- 5 days or more

[7] I did not menstruate in the last six months.

**When was the first day of your last menstruation?**

Please select the according date. If you need a calendar to answer this question, please click on the question mark above.

<i>Month</i>	<i>Day</i>
[please select]	[please select]
January	1
February	2
March	3
...	...
November	30
December	31

**How many days did your menstrual cycle last on average in the last six months?**

! Please note: menstrual cycle= *first day of your menstruation until last day before beginning of your next menstruation*

- [please select]
- [66] less than 21 days
- [21] 21 days
- [22] 22 days
- [23] 23 days
- [...] ... days
- [35] 35 days
- [88] more than 35 days

**Are you currently taking hormonal contraceptives?**

- [1] No.
- [2] Yes, I take the contraceptive pill.
- [3] Yes, I use another method of hormonal birth control.

**Did you start, end or change your method of hormonal birth control in the last three months?**

- [1] Yes.
- [2] No.

## **2. Full list of measures**

### **Study 1**

1. Menstrual cycle survey (see above)
2. Social Value Orientation (6 items; Murphy, Ackermann, & Handgraaf, 2011)
3. Inclusion of Other in the Self (3 items; adapted from Aron, A., Aron, E. N., & Smollan, D., 1992)
4. Moral dilemmas (5 items; selected and adapted from Koenigs et al., 2007; Knutson et al., 2010, and self-developed)
5. Delay discounting (8 items; self-developed)
6. Self-reported altruism (16 items; selected and adapted from Kinnunen, Singh, & Windmann, 2015)
7. Demographics

### **Study 2**

1. Social Value Orientation (6 items; Murphy, Ackermann, & Handgraaf, 2011)
2. Set of legal vignettes (14 items; selected from Krueger et al., 2013)
3. Menstrual cycle survey (see above)
4. Demographics

## References

- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63(4), 596–612.
- Kinnunen, S. P., Singh, M., & Windmann, S. (2015). Dissociating facets of self-reported altruism in India and Germany: Preliminary evidence. *Psychological Studies*, 1–11.
- Knutson, K. M., Krueger, F., Koenigs, M., Hawley, A., Escobedo, J. R., Vasudeva, V., ... & Grafman, J. (2010). Behavioral norms for condensed moral vignettes. *Social Cognitive and Affective Neuroscience*, 5(4), 378–384.
- Koenigs, M., Young, L., Adolphs, R., Tranel, D., Cushman, F., Hauser, M., & Damasio, A. (2007). Damage to the prefrontal cortex increases utilitarian moral judgements. *Nature*, 446(7138), 908–911.
- Krueger, F., Parasuraman, R., Moody, L., Twieg, P., de Visser, E., McCabe, K., ... & Lee, M. R. (2013). Oxytocin selectively increases perceptions of harm for victims but not the desire to punish offenders of criminal offenses. *Social Cognitive and Affective Neuroscience*, 8(5), 494–498.