

Supplementary file 1

Supplementary Tables 1A through 1D

Supplementary file 1. Table 1A. Match demographic information and prosocial-related traits.

	Oxytocin		Placebo		Role	Treatment	Interaction
	Attackers	Defenders	Attackers	Defenders			
	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)			
Age (year)	20.25 (0.16)	20.21 (0.18)	20.43 (0.13)	20.25 (0.16)	0.159	0.889	0.290
Education (year)	15.82 (0.09)	15.85 (0.07)	15.71 (0.10)	15.86 (0.06)	0.249	0.646	0.468
Empathic capacity	70.00 (0.91)	69.35 (1.03)	70.29 (1.18)	70.16 (0.99)	0.697	0.602	0.795
Cooperative personality	48.53 (0.43)	49.05 (0.43)	49.64 (0.42)	49.98 (0.51)	0.502	0.113	0.852
Social value orientation	27.14 (1.15)	27.73 (1.05)	25.99 (1.15)	26.23 (1.18)	0.703	0.268	0.876
Prosocial personality	41.19 (0.50)	41.51 (0.41)	40.96 (0.51)	40.86 (0.48)	0.809	0.401	0.625
Impulsiveness	39.97 (0.46)	39.50 (0.42)	40.14 (0.43)	40.50 (0.47)	0.902	0.217	0.332
Socio-economic status	5.24 (0.12)	5.31 (0.16)	5.49 (0.15)	5.09 (0.13)	0.217	0.934	0.090

Table note: We conducted 2 (Treatment: placebo vs. oxytocin) × 2 (Role: attacker vs. defender) ANOVAs on the demographic information and prosocial-related traits. Empathic capacity was measured using the Interpersonal Reactivity Index (Davis, 1983), which consists of 28 items on a 5-point (0-4) Likert scale. Cooperative personality was measured by the cooperative subscale of the Cooperation and Competition Personality scale (Xie et al., 2006; 13 items on a 5-point (1-5) Likert scale). Social value orientation was measured by the 6 primary items of the Social Value Orientation Slider task (Murphy et al., 2011). Prosocial personality was measured by the Social Responsibility, Other-Oriented Moral Reasoning and Mutual Concerns Moral Reasoning subscales of Prosocial Personality Battery (Penner, 2002). Impulsiveness was measured using BAS subscale of the Behavioral Inhibition/Behavioral Activation Scales, BIS/BAS (Carver and White, 1994), which consists of 13 items on 4-point (1-4) Likert scale. Subjective socio-economic status was measured by a typical Subjective Socioeconomic Status Ladder Scale (Operario et al., 2004) with 10 rungs with the instruction of “Imagine that this ladder with 10 rungs represents where people stand in our society. At the top are the people who are best off – those who have the most money, highest education, and best jobs. At the bottom are the people who are the worst off – those who have the least money, lowest education, and the worst jobs or no job. Please mark the rung that best represents where you think you stand in the society.”

Supplementary file 1. Table 1B. Mood changes from pre-experiment to post-experiment.

	Oxytocin		Placebo		Main effect of Role	Main effect of Treatment	Role x Treatment Interaction
	Attacker	Defender	Attacker	Defender			
	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)	<i>p</i>	<i>p</i>	<i>p</i>
Positive	0.00 (0.12)	0.04 (0.11)	0.02 (0.09)	0.18 (0.10)	0.357	0.457	0.620
Negative	-0.01(0.12)	-0.17 (0.13)	-0.01 (0.12)	-0.15 (0.12)	0.202	0.930	0.937
Overall	-0.01 (0.08)	-0.06 (0.07)	0.01 (0.06)	0.02 (0.07)	0.764	0.525	0.649

Table note: We conducted 2 (Treatment: placebo vs. oxytocin) × 2 (Role: attacker vs. defender) ANOVAs on the mood change of the positive, negative and overall mood respectively.

Supplementary file 1. Table 1C. Point estimates for indirect effects and bootstrapped 95% bias-corrected confidence intervals for multiple mediational analysis in which attacker group's tracking (*strategic tracking when $\alpha \rightarrow -1$*) and within-group variance (*variance*) were represented as mediators in the association between *Treatment* and *spoils from winning* a conflict during simultaneous decision-making.

Path	Estimate	SE	LLCI	ULCI
Treatment → Attackers track defenders (α) → Spoils from winning	0.165	0.342	-0.395	0.945
Treatment → Variance → Spoils from winning	0.047	0.197	-0.321	0.509
Treatment → Attackers track defenders (α) → Variance → Spoils from winning	0.147	0.103	0.021	0.510
Total indirect effect	0.359	0.360	-0.168	1.280

Table note: Treatment was a dichotomous variable (0 = placebo; 1 = oxytocin); Confidence intervals for indirect effect are bias-corrected and accelerated bootstrap resamples=5000; $N=76$ for all tests.

Supplementary file 1. Table 1D. Point estimates for indirect effects and bootstrapped 95% bias-corrected confidence intervals for multiple mediational analysis in which attacker group's tracking (*strategic tracking when $\alpha \rightarrow -1$*) and within-group variance (*variance*) were represented as mediators in the association between *Treatment* and *spoils and leftovers* during simultaneous decision-making.

Path	Estimate	SE	LLCI	ULCI
Treatment → Attackers track defenders (α) → Spoils & leftovers	0.510	0.542	-0.232	1.942
Treatment → Variance → Spoils and leftovers	0.069	0.303	-0.488	0.738
Treatment → Attackers track defenders (α) → Variance → Spoils and leftovers	0.218	0.174	0.022	0.779
Total indirect effect	0.797	0.568	-0.027	2.234

Table note: Treatment was a dichotomous variable (0 = placebo; 1 = oxytocin); Confidence intervals for indirect effect are bias-corrected and accelerated bootstrap resamples = 5000; $N=76$ for all tests.

Supplementary Reference

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