

Supporting Information

Konvalinka et al. 10.1073/pnas.1016955108

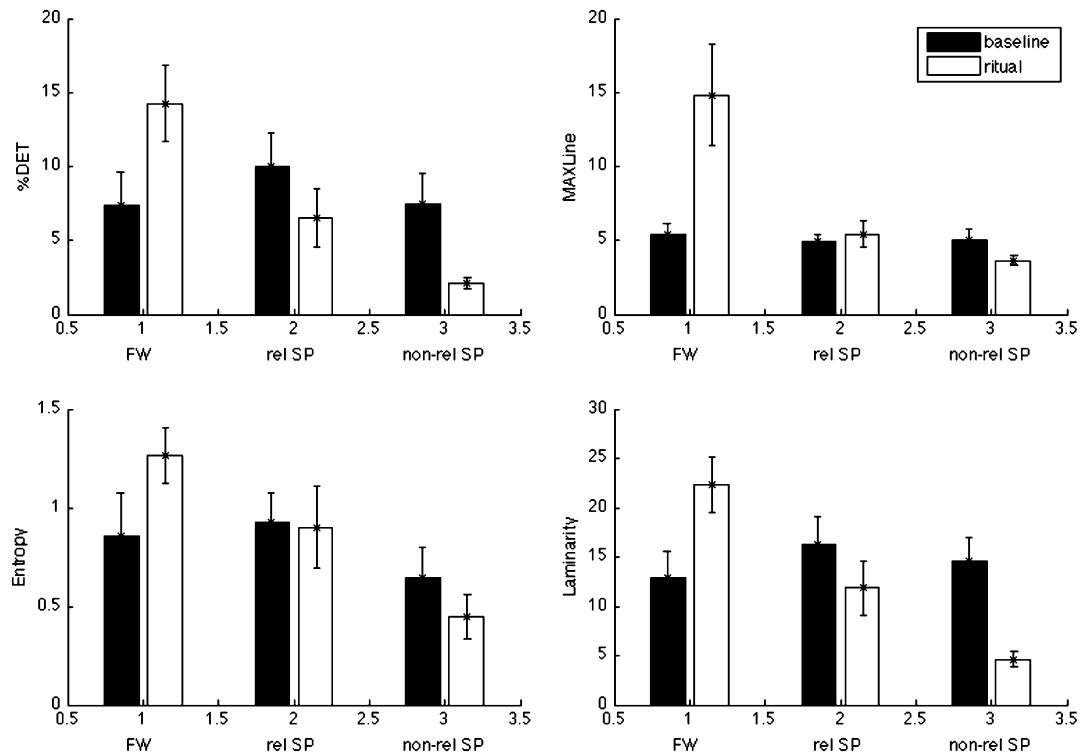


Fig. S1. Means and SEs of recurrence quantification analysis metrics (%DET, MAXLine, Entropy, and Laminarity) for the baseline (black) and ritual (white) source epochs, across three different groups of participants: 1, fire-walkers; 2, related spectators; and 3, unrelated spectators.

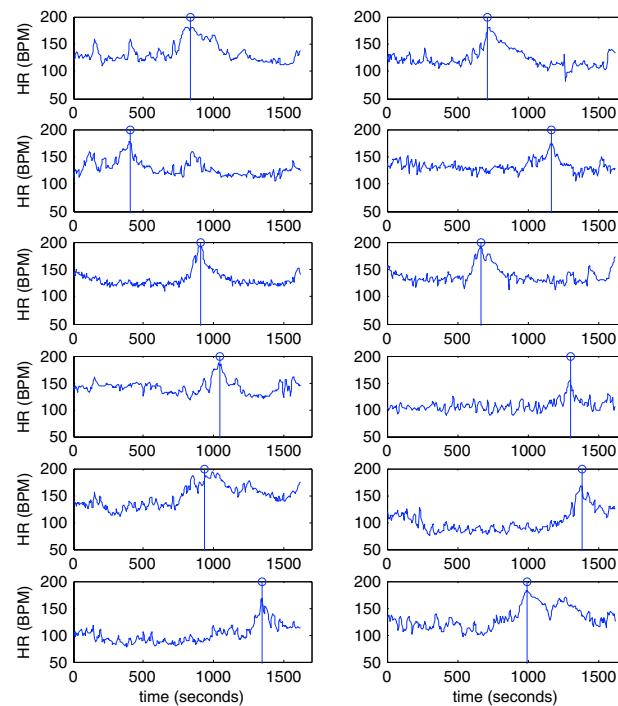


Fig. S2. Heart rates (in beats per minute) of all 12 fire-walkers during the ritual source epoch. The vertical line indicates the time at which each fire-walker crossed the fire.

Table S1. Summary of the 3×2 mixed-model multivariate analysis of variance to evaluate of recurrence quantification analysis metrics corresponding to predictability (%DET), stability (MAXLine), complexity (Entropy), and smoothness (Laminarity)

Effect	Metric	F	P
Between subjects			
Group	%DET	4.607	0.017*
	MAXLine	8.678	0.001*
	Entropy	5.256	0.010*
	Laminarity	5.282	0.010*
Within subjects			
Ritual	%DET	0.187	0.668
	MAXLine	5.972	0.020*
	Entropy	0.241	0.626
	Laminarity	0.932	0.341
Ritual × group	%DET	6.813	0.003*
	MAXLine	8.760	0.001*
	Entropy	2.190	0.127
	Laminarity	12.910	0.000*

*Statistically significant.

Table S2. Summary of the 3×2 mixed-model multivariate analysis of variance to evaluate cross-recurrence quantification analysis metrics of predictability (%DET), stability (MAXLine), complexity (Entropy), and smoothness (Laminarity)

Effect	Metric	F	P
Between subjects			
Relatedness	%DET	5.296	0.018*
	MAXLine	5.112	0.020*
	Entropy	16.805	0.000*
	Laminarity	10.554	0.001*
Within subjects			
Ritual	%DET	3.075	0.100
	MAXLine	4.630	0.048*
	Entropy	0.104	0.751
	Laminarity	4.954	0.042*
Ritual × relatedness	%DET	0.676	0.523
	MAXLine	2.963	0.082
	Entropy	7.308	0.006*
	Laminarity	0.211	0.812

*Statistically significant.



Movie S1. Video showing preparation of the fire (i.e., carpet of glowing coals) and one participant's fire-walk.

[Movie S1](#)