

Contents lists available at [ScienceDirect](#)

NeuroImage

a e a e: .e e e.c / ca e/ e a e



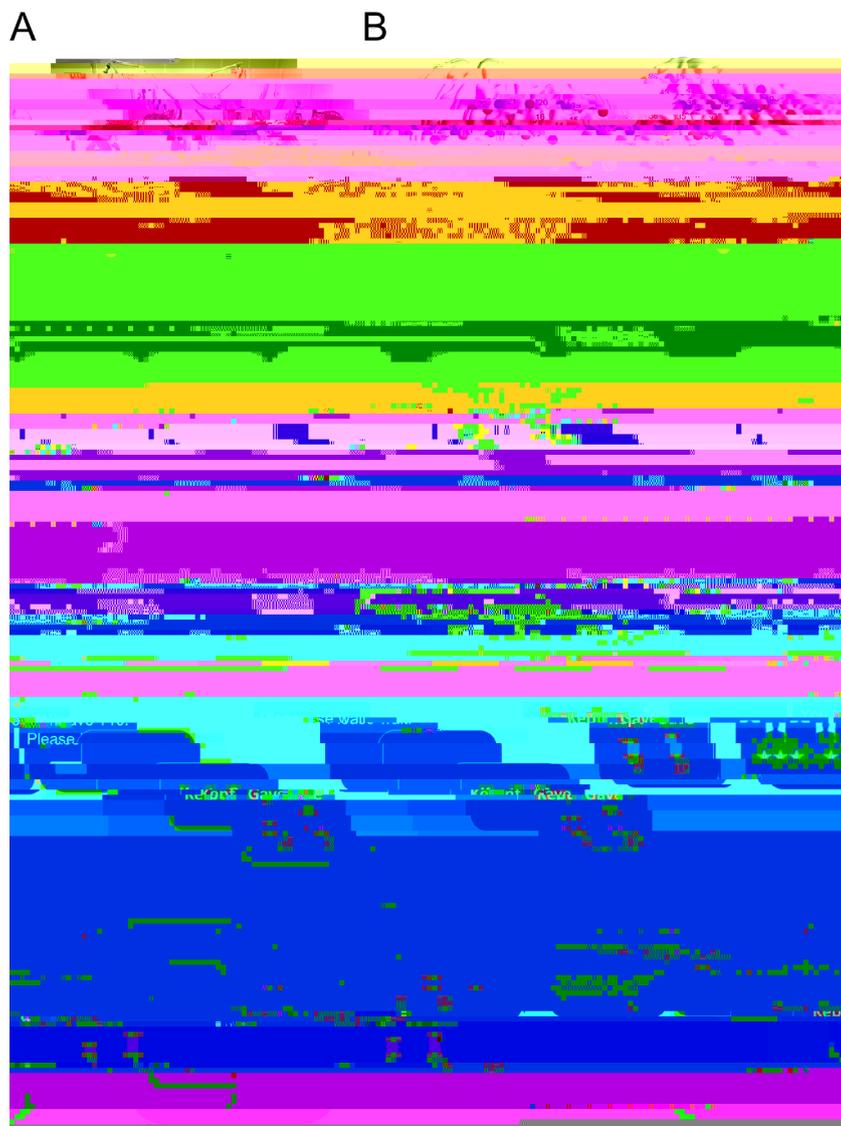


Fig. 1. Experimental design and task procedures. (A) Experimental setup. (B) Probe configuration. The integers on the cerebral

25 dyads). Two participants in the other 51 pairs were assigned different statuses: high-status investor and low-status trustee (the high-low group, 26 dyads) or low-status investor and high-status trustee (the low-high group, 25 dyads). 1



Fig. 3. fNIRS data. (A) *T*-value maps of task-related IBS (IBS during task minus IBS during rest) during trust interaction. (B) The task-related IBS at CH38 interaction.

These findings highlight the key role of information flow between brains during social interactions, and the initial consensus between the interacting individuals may be achieved during this time. Consensus may reflect a shared understanding between investor and trustee, which has been linked with IBS 08inked

- Fett, A.K.J., Shergill, S.S., Joyce, D.W., Riedl, A., Strobel, M., Gromann, P.M., Krabben-dam, L., 2012. To trust or not to trust: the dynamics of social interaction in psychosis. *Brain* 135, 976–984. doi:10.1093/brain/awr359.
- Fleck, M.S., Daselaar, S.M., Dobbins, I.G., Cabeza, R., 2006. Role of prefrontal and anterior cingulate regions in decision-making processes shared by memory and nonmemory tasks. *Cereb. Cortex* 16, 1623–1630. doi:10.1093/cercor/bhj097.
- Fujino, J., Tei, S., Itahashi, T., Aoki, Y.Y., Ohta, H., Kubota, M., Hashimoto, R.ichiro, Takahashi, H., Kato, N., Nakamura, M., 2020. Role of the right temporoparietal junction in intergroup bias in trust decisions. *Hum. Brain Mapp.* 41, 1677–1688. doi:10.1002/hbm.24903.
- Goldstein, P., Weissman-Fogel, I., Dumas, G., Shamay-Tsoory, S.G., 2018. Brain-to-brain coupling during handholding is associated with pain reduction. *Proc. Natl. Acad. Sci.* 115, E2528–E2537. doi:10.1073/pnas.1703643115.
- Guinote, A., Cotzia, I., Sandhu, S., Siwa, P., 2015. Social status modulates prosocial behavior and egalitarianism in preschool children and adults. *Proc. Natl. Acad. Sci. U. S. A.* 112, 731–736. doi:10.1073/pnas.1414550112.
- Henrich, J., Gil-White, F.J., 2001. The evolution of prestige freely conferred deference as a mechanism for enhancing the benefits of cultural transmission. *Evol. Hum. Behav.* 22, 165–196.
- Hirsch, J., Tiede, M., Zhang, X., Noah, J.A., Salama-Manteau, A., Biriotti, M., 2021. Interpersonal Agreement and Disagreement During Face-to-Face Dialogue: an fNIRS Investigation. *Front. Hum. Neurosci.* 14. doi:10.3389/fnhum.2020.606397.
- Hoshi, Y., 2003. Functional near-infrared optical imaging: utility and limitations in human brain mapping. *Psychophysiology* 40, 511–520. doi:10.1111/1469-8986.00053.
- Hou, Y., Song, B., Hu, Yinying, Pan, Y., Hu, Yi, 2020. The averaged inter-brain coherence between the audience and a violinist predicts the popularity of violin performance. *Neuroimage* 211, 116655. doi:10.1016/j.neuroimage.2020.116655.
- Hu, J., Blue, P.R., Yu, H., Gong, X., Xiang, Y., Jiang, C., Zhou, X., 2015. Social status modulates the neural response to unfairness. *Soc. Cogn. A ect. Neurosci.* 11, 1–10. doi:10.1093/scan/nsv086.
- Hu, J., Cao, Y., Blue, P.R., Zhou, X., 2014. Low social status decreases the neural salience of unfairness. *Front. Behav. Neurosci.* 8, 1–12. doi:10.3389/fnbeh.2014.00402.
- Hu, Yi, Hu, Yinying, Li, X., Pan, Y., Cheng, X., 2017. Brain-to-brain synchronization across two persons predicts mutual prosociality. *Soc. Cogn. A ect. Neurosci.* 12, 1835–1844. doi:10.1093/scan/nsx118.
- Jang, K.E., Tak, S., Jung, J., Jang, J., Jeong, Y., Ye, J.C., 2009. Wavelet minimum description length detrending for near-infrared spectroscopy. *J. Biomed. Opt.* 14, 034004. doi:10.1117/1.3127204.
- Jiang, J., Chen, C., Dai, B., Shi, G., Ding, G., Liu, C., Zhou, C., 2022. Interpersonal synchronization of brain-to-brain coherence during social interaction. *NeuroImage* 246, 118777. doi:10.1016/j.neuroimage.2022.118777.

Stanley, D.A., Sokol-Hessner, P., Banaji, M.R., Phelps, E.A., 2011. Implicit race attitudes predict trustworthiness judgments and economic trust decisions. *Proc. Natl. Acad. Sci. U. S. A.* 108, 7710–7715. doi:[10.1073/pnas.1014345108](https://doi.org/10.1073/pnas.1014345108).

Stephens, G.J., Silbert, L.J., Hasson, U., 2010. Speaker-listener