

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: **Example movie of a C57BL/6J mouse during SP test** The white cross on the body mass center of the mouse changes to green during active exploration of the social stimulus, and to blue during active exploration of the object.

File Name: Supplementary Movie 2

Description: **Example movie of a SD rat during SP test** The red cross on the body mass center of the rat changes to green during active exploration of the social stimulus, and to black during active exploration of the object.

File Name: Supplementary Data 1

Description: **Table of statistical results** This table details the results of all statistical tests conducted for the study, listed according to the relevant figures and supplementary figures.

File Name: Supplementary Data 2

Description: **Code of computational model** This ZIP file contains the MATLAB code for simulating social preference (SP) and social novelty preference (SNP) behavior, as well as a manual explaining how to use it.