**Supplementary Information**

# Neural representations of the multidimensional self in the cortical midline structures

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**SI Text**

*Behavioral performance in the label-shape matching task*

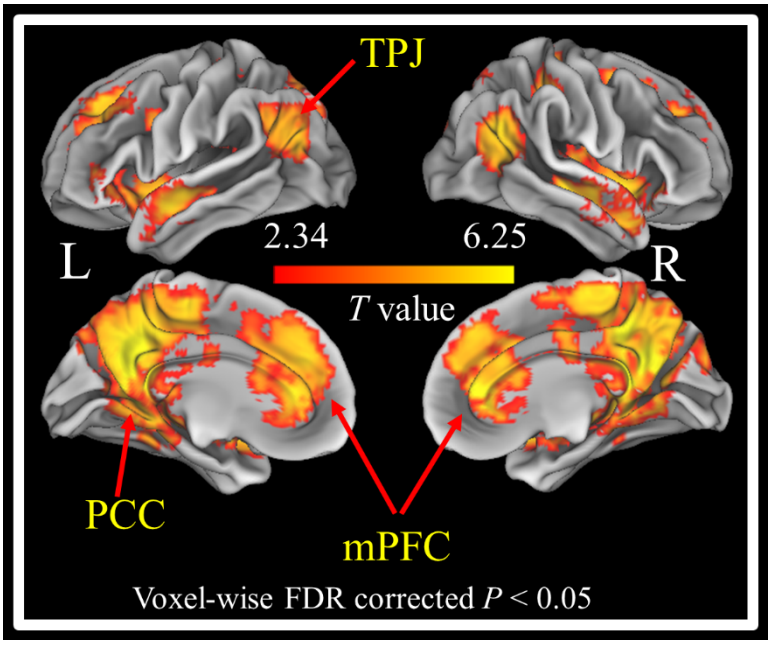
**Matched pairs:** A repeated measures ANOVA (Identity × Dimension) on ACC showed a significant main effect of Identity ($F$ (2, 36) = 35.91, $P < 0.001$, $\eta^2 = 0.67$), owing to more accurate responses to self *vs.* mother ($P < 0.001$), self *vs.* celebrity ($P < 0.001$), and mother *vs.* celebrity ($P = 0.002$) from *post hoc* comparison. There was a main effect of Dimension ($F$ (2, 36) = 3.59, $P < 0.001$, $\eta^2 = 0.17$), and its interaction with Identity was found ($F$ (4, 72) = 7.58, $P < 0.001$, $\eta^2 = 0.30$). *Post hoc* analysis showed that in the social dimension, $ACC_{self} > ACC_{mother} > ACC_{celebrity}$ (all $P < 0.002$); in the mental dimension, $ACC_{self} > ACC_{mother}$ ($P = 0.007$), $ACC_{self} > ACC_{celebrity}$ ($P = 0.001$), and there was no difference between mother and celebrity ($P = 0.50$); in the physical dimension, $ACC_{self} > ACC_{mother} > ACC_{celebrity}$ (all $P < 0.009$) (**Supplementary** Fig. 2 A left panel). For response time (RT), a repeated measures ANOVA (Identity × Dimension) showed a significant effect of Identity ($F$ (2, 36) = 51.47, $P < 0.001$, $\eta^2 = 0.74$), owing to faster responses to self *vs.* mother ($P < 0.001$), self *vs.* celebrity ($P < 0.001$), and mother *vs.* celebrity ($P = 0.009$) from *post hoc* comparison. Dimension did not show a main effect ($F$ (2, 36) = 0.18, $P = 0.84$, $\eta^2 = 0.01$); an interaction effect between Identity and Dimension was found ($F$ (4, 72) = 7.71, $P < 0.001$, $\eta^2 = 0.30$); *post hoc* analysis showed that in the social dimension, $RT_{self} < RT_{mother} < RT_{celebrity}$ (all $P < 0.008$); in the mental dimension, $RT_{self} < RT_{mother}$, $RT_{self} < RT_{celebrity}$ (all $P < 0.001$), and there was no difference between mother and celebrity ($P = 0.97$); in the physical dimension, $RT_{self} < RT_{mother} < RT_{celebrity}$ (all $P < 0.003$) (**Supplementary** Fig. 2 A middle panel). Multiple comparisons were Bonferroni corrected. Together, these findings provided consistent evidence for unique responses to self-relevant associations in comparison with those related to

mother and celebrity. Our results were well consistent with findings from previous studies that have used a similar paradigm (1, 2).

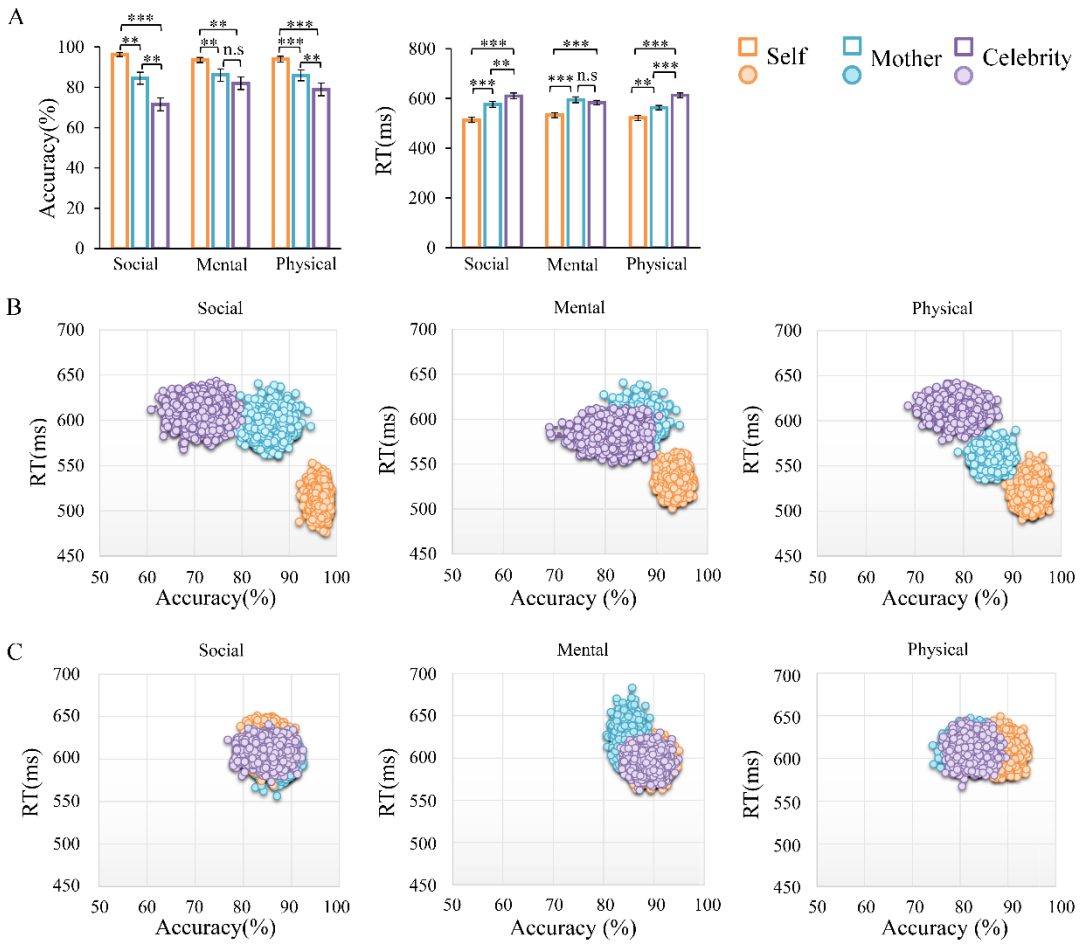
To test the distribution characteristics of matching judgments in each associated pair, we adopted a bootstrapping procedure. We combined the ACC and RT of each participant in each associated pair as a single data point (ACC, RT). A bootstrapped dataset was created by resampling the data with replacement, keeping the sample size of data as the number of participants; this procedure was repeated 2000 times to estimate the mean of the population in each associated pair across all dimensions. The bootstrapped data showed a clear boundary between self- and close/distant other-related associations in matched pairs in all dimensions (**Supplementary** Fig. 2 B).

**Mismatched pairs:** Repeated measures ANOVAs (Identity × Dimension) were conducted separately for ACC and RT. For ACC, the main effect of Identity was significant ($F$ (2, 36) = 5.48, $P$ = 0.008, $\eta^2$ = 0.23); *post hoc* analysis showed that $ACC_{self} > ACC_{mother}$ ($P$ = 0.005), and there was no difference between self and celebrity, or between mother and celebrity (all $P > 0.19$). Neither the main effect of Dimension nor its interaction with Identity was significant ($P > 0.05$). ANOVA on RT revealed a main effect of Identity ($F$ (2, 36) = 7.80, $P$ = 0.002, $\eta^2$ = 0.30); *post hoc* analysis showed that $RT_{self} < RT_{mother}$ ($P$ = 0.02), $RT_{celebrity} < RT_{mother}$ ($P$ = 0.02), and there was no difference between self and celebrity ($P$ =1.00). Neither the main effect of Dimension nor its interaction with Identity was significant ($P > 0.05$). Multiple comparisons were Bonferroni corrected. Neither the main effect of Dimension nor its interaction with Identity was significant ($P > 0.05$). The bootstrapped results for the ACC and RT, illustrated in **Supplementary** Fig. 2 C, showed that there was no clear boundary among self, mother, and celebrity across dimensions.

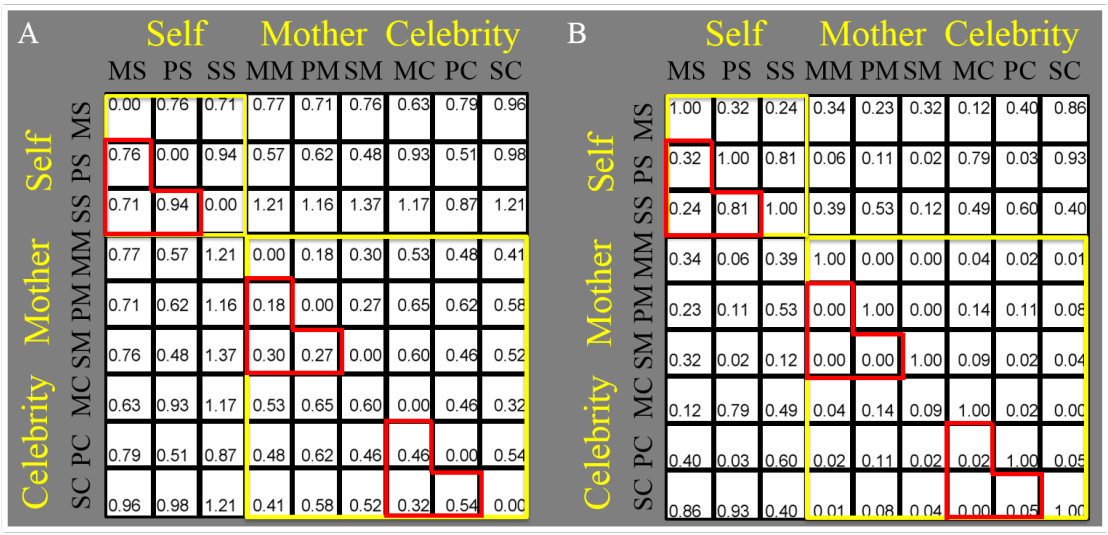
**Supplementary figures**




**Supplementary Figure 1. Pattern similarity between identities within mental dimension.** Neural patterns were more similar between mother and celebrity than between self and celebrity in the following regions: PCC/precuneus extending to mPFC and ACC (MNI x/y/z = -12/-54/21 mm, cluster size = 10226 voxels; maximum T = 6.25), mPFC (MNI x/y/z = -12/-3/57 mm, cluster size = 16 voxels; maximum T = 2.66), TPJ (MNI x/y/z = 51/-60/24 mm, cluster size = 367 voxels; maximum T = 3.51), dlPFC (MNI x/y/z = -42/39/-3 mm, cluster size = 60 voxels; maximum T = 3.25), caudate (MNI x/y/z = -15/-6/15 mm, cluster size = 5 voxels; maximum T = 2.35), and cerebellum (MNI x/y/z = 9/-36/-33 mm, cluster size = 31 voxels; maximum T = 2.68). mPFC, medial prefrontal cortex; PCC, posterior cingulate cortex; TPJ, temporoparietal junction.

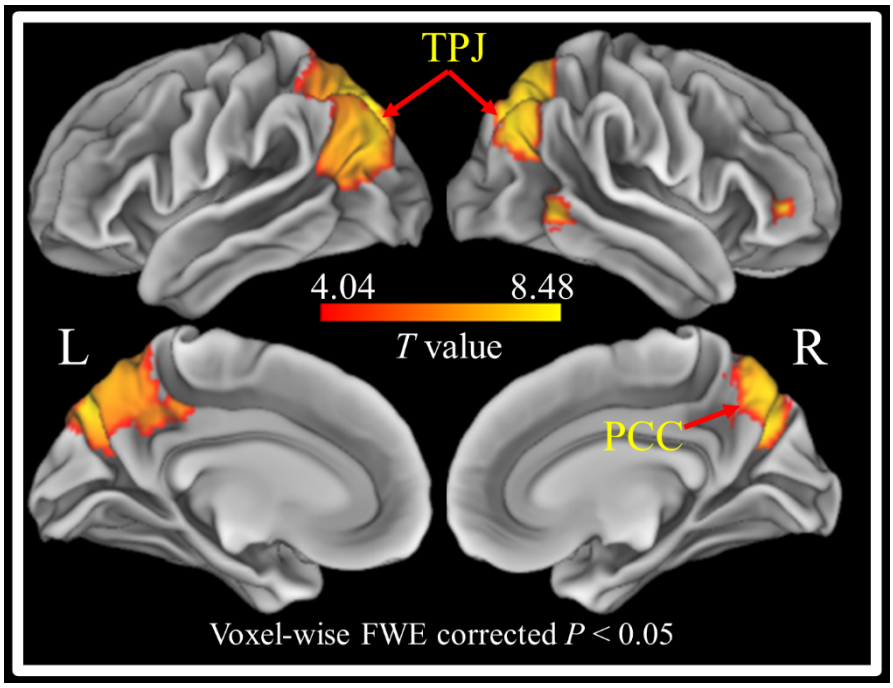



**Supplementary Figure 2. Behavioral results in the label-shape matching task. (A)** Behavioral results for the matched condition. Accuracy and response time as a function of identity and dimension. **(B)** Bootstrap results of accuracy and response time in three dimensions in the matched condition. **(C)** Bootstrap results of accuracy and response time in three dimensions in the mismatched condition. $^{**}P < 0.01$; $^{***}P < 0.001$. All multiple comparisons were Bonferroni corrected.




**Supplementary Figure 3. (A)** Dissimilarity/distance for each pair of conditions, calculated as 1 minus the Pearson correlation coefficient. **(B)** Corresponding *P* values for the distance between each pair of conditions.

MS, mental-self; PS, physical-self; SS, social-self; MM, mental-mother; PM, physical-mother; SM, social-mother; MC, mental- celebrity; PC, physical- celebrity; SC, social-celebrity.




**Supplementary Figure 4.** Brain regions in which neural patterns were more related to the representation of self-knowledge than to self-identity, including the TPJ and PCC. TPJ, temporoparietal junction; PCC, posterior cingulate cortex; FWE, family-wise error.

**Supplementary Tables**

**Supplementary Table 1.** Demographic information and personality scores of participants in the fMRI experiment

| Variables | Mean (SD) |
|---|---|
| Gender | 45 males |
| Age (years) | 20.94 (2.05) |
| Self-esteem | 28.52 (3.39) |
| Social economic status | 6.64 (1.75) |
| Independent | 56.10 (8.57) |
| Interdependent | 62.32 (7.85) |
| IRI | 2.41 (0.45) |

*Note.* Self-esteem score was measured with Self-esteem Scale (4), social economic status was measured by the Subjective Economic Status scale (5), independent and interdependent score were obtained from Self Construal Scale (6), and IRI score was collected from Interpersonal Reactivity Index (7). Standard errors are presented in parentheses. IRI, interpersonal reactivity index.

**Supplementary Table 2.** Full list of items used in the fMRI experiment.

| | | | | |
|---|---|---|---|---|
| **Social dimension** | | | | |
| Asian | poor man | fan | landlord | high school student |
| American | scout leader | European | middle class | college student |
| customer | ads spokesman | idol | African | cellphone manufacturer |
| Buddhist | non-religious | professor | salesman | technical worker |
| emcee | undergraduate | athlete | bank customer | religious person |
| coach | house owner | Christian | student | teacher assistant |
| researcher | left-winger | volunteer | teacher | Olympic champion |
| Politician | shop assistant | civilian | cyclist | graduate student |
| Chinese | actor/actress | humanist | testee | mathematician |
| Korean | Arts student | Danish | PC user | white collar workers |
| driver | museum owner | bus driver | Gmail user | blue collar workers |
| car owner | Mac user | German | internet user | government employee |
| skier | right-winger | passenger | Facebook user | bank employee |
| tourist | bus passenger | tenant | football player | table tennis player |
| celebrity | bike owner | scout | cellphone user | basketball player |
| tour guide | waiter/waitress | consumer | self-employed | not a celebrity |
| **Mental dimension** | | | | |
| decent | tolerant | assertive | confident | lazy |
| honest | Humble | picky | suspicious | easy-going |
| witty | calm | timid | healthy | mediocre |
| indifferent | rash | rough | friendly | rude |
| outgoing | merciless | diligent | talkative | smart |
| hostile | despicable | competent | arrogant | headstrong |
| clever | reliable | gregarious | dexterous | shy |
| aggressive | generous | firm | outstanding | open-minded |
| slow | easy-going | petty | rigid | intelligent |
| snobbish | fiery | earnest | Irritable | strong |
| hospitable | pessimistic | negative | rational | frank |
| loyal | arbitrary | humorous | naughty | stubborn |
| careless | famous | warm | superstitious | hypocritical |
| sincere | happy | selfish | courageous | disgusting |
| stupid | clumsy | modest | weak | dedicated |
| optimistic | mature | greedy | patient | impulsive |
| **Physical dimension** | | | | |
| short | long hair | flawless | short fingers | stocky arms |
| straight hair | with no acne | fat | thin-lipped | heavier than 60 kg |
| thin arms | small eyes | wrinkled | broad shoulder | some acnes on the face |
| hyperopia | bald-headed | thin | small feet | asymmetrical face |
| big feet | flat-chested | buxom | thick-lipped | lighter than 60 kg |
| black hair | tufty-haired | tall | yellow hair | symmetrical face |
| choppy | pierced ears | myopia | small ears | narrow shoulder |

| | | | | |
|---|---|---|---|---|
| big ears | unpierced ears | slim | yellowish skin | small hand |
| long arm | straight nose | tattoo | big nose | hour-glass figure |
| short neck | large eyes | long neck | tallow-faced | long eyelashes |
| green eyes | buxom body | no tattoo | bushy eyebrows | snaggle-toothed |
| blue pupil | straight teeth | small nose | boney body | long fingers |
| no freckles | out of shape | thin legs | short arm | ruddy faced |
| large waist | thick-legged | in shape | sparse eyebrows | short eyelashes |
| freckles | crooked nose | oval face | moon-faced | curly hair |
| short legs | short hair | big hand | long legs | light skin |

**Supplementary Table 3.** Brain regions from searchlight results in which neural patterns were more associated with one's own personal knowledge than person identity.

| Region | L/R | x/y/z (MNI) | t-value | cluster size |
|---|---|---|---|---|
| Precuneus/posterior cingulate gyrus/temporal parietal junction | L/R | -21/-75/42 | 8.76 | 2977 |
| Middle temporal gyrus | R | 57/-54/0 | 4.40 | 59 |
| Inferior frontal gyrus | R | 45/42/3 | 6.30 | 23 |

DM, dissimilarity matrix; L, left; R, right. Voxel-wise $P(\text{FWE}) < 0.05$.

**Supplementary Table 4.** Brain regions from searchlight results using Pearson linear correlation for the behavioral and theoretical models characterizing unique representations of the self.

| Model | Region | L/R | x/y/z (MNI) | t-value | cluster size |
|---|---|---|---|---|---|
| **Behavioral DM** | Posterior cingulate gyrus | R | 15/-51/30 | 9.71 | 4848 |
| | Supramarginal gyrus | R | 48/-51/21 | 6.02 | |
| | Medial frontal gyrus | L | -15/24/42 | 7.79 | 4882 |
| | Medial frontal gyrus | R | 18/24/42 | 7.47 | |
| | Medial frontal gyrus | R | 12/45/12 | 6.87 | |
| | Middle Temporal gyrus | R | 63/-9/-24 | 5.06 | 100 |
| **Self-uniqueness DM** | Posterior cingulate gyrus | L | -6/-48/39 | 8.43 | 2155 |
| | | L | -42/-60/21 | 5.89 | |
| | Medial prefrontal cortex | L | -3/39/-6 | 7.38 | 1998 |
| | Superior frontal cortex | L | -21/30/33 | 6.99 | |
| | Middle temporal gyrus | L | -60/-3/-24 | 4.95 | 36 |
| **Identity-sensitive self-representation DM** | Medial frontal gyrus | L | -3/39/-6 | 5.28 | 865 |
| | Medial frontal gyrus | L | -21/33/30 | 4.51 | |
| | Posterior cingulate gyrus | | 0/-48/42 | 5.04 | 343 |
| **Dimension-sensitive self-representation DM** | Posterior cingulate gyrus | L | -9/-45/39 | 7.52 | 5499 |
| | Middle temporal gyrus | L | -36/-69/27 | 7.17 | |
| | Superior temporal gyrus | R | 48/-60/27 | 5.01 | |
| | Middle frontal gyrus | L | -21/27/39 | 5.45 | 1001 |
| | Middle frontal gyrus | L | -42/42/27 | 4.65 | |
| | | L | -63/-9/-21 | 4.62 | 46 |
| | Medial frontal gyrus | R | 12/39/6 | 4.44 | 411 |
| | Medial orbital frontal | | 0/39/-9 | 4.38 | |
| | Middle frontal gyrus | R | 30/24/36 | 4.34 | 139 |
| | Middle frontal gyrus | R | 36/39/6 | 3.92 | 8 |

DM, dissimilarity matrix; L, left; R, right. Voxel-wise $P$(FWE) < 0.05.

**Supplementary Table 5.** Brain regions from searchlight results using Kendall rank correlation for the behavioral and theoretical models characterizing unique representations of the self.

| Model | Region | L/R | x/y/z (MNI) | t-value | cluster size |
|---|---|---|---|---|---|
| **Behavioral DM** | Posterior cingulate gyrus | R | 15/-51/30 | 9.39 | 6021 |
| | Superior temporal gyrus | R | 57/-60/24 | 6.05 | |
| | Middle temporal gyrus | L | -39/-63/21 | 4.41 | |
| | Medial frontal gyrus | L | -18/30/36 | 7.81 | 5621 |
| | Medial frontal gyrus | L | -3/45/6 | 7.22 | |
| | Superior frontal cortex | R | 18/30/39 | 6.28 | |
| | Inferior temporal gyrus | R | 63/-6/-21 | 5.02 | 158 |
| **Self-uniqueness DM** | Posterior cingulate gyrus | L | -9/-45/39 | 8.53 | 1864 |
| | Medial frontal gyrus | L | -3/39/-6 | 7.34 | 1958 |
| | Superior frontal gyrus | L | -21/30/33 | 6.86 | |
| | Angular gyrus | L | -39/-60/21 | 5.66 | 233 |
| | Middle temporal gyrus | L | -60/-3/-24 | 4.56 | 18 |
| | Middle temporal gyrus | L | -66/-6/-18 | 4.37 | |
| **Identity-sensitive self-representation DM** | Posterior cingulate gyrus | R | 3/-45/42 | 5.82 | 358 |
| | Medial frontal gyrus | L | -3/39/-6 | 5.81 | 838 |
| | Medial frontal gyrus | L | -21/33/30 | 4.84 | |
| **Dimension-sensitive self-representation DM** | Posterior cingulate gyrus | L | -9/-45/39 | 9.62 | 5243 |
| | Middle temporal gyrus | L | -36/-69/27 | 9.06 | |
| | Middle temporal gyrus | R | 48/-60/24 | 5.54 | |
| | Middle frontal gyrus | L | -21/27/39 | 5.99 | 736 |
| | Middle frontal gyrus | L | -42/42/27 | 4.57 | |
| | | L | -48/42/21 | 4.32 | |
| | Medial frontal gyrus | L | -3/42/-6 | 4.72 | 334 |
| | Anterior cingulate gyrus | R | 12/39/3 | 4.62 | |
| | Middle frontal gyrus | R | 30/24/36 | 4.62 | 92 |
| | | R | 33/30/51 | 4.19 | |
| | Middle temporal gyrus | L | -63/-9/-21 | 4.47 | 11 |
| | Inferior frontal gyrus | R | 39/42/3 | 4.27 | 13 |

DM, dissimilarity matrix; L, left; R, right. Voxel-wise $P$(FWE) < 0.05.

**Supplementary Table 6.** Brain regions from univariate activation analysis of identities across dimensions.

| Contrast | Region | L/R | x/y/z (MNI) | t-value | cluster size |
|---|---|---|---|---|---|
| **Self vs. Celebrity** | Medial frontal gyrus | L | -3/39/-6 | 14.56 | 1968 |
| | Medial frontal gyrus | L | -9/48/-3 | 14.29 | |
| | Superior frontal gyrus | L | -24/39/33 | 9.61 | |
| | Inferior parietal lobule | L | -57/-42/27 | 8.01 | 191 |
| | Superior temporal gyrus | L | -42/-51/18 | 5.56 | |
| | | L | -3/-18/36 | 7.18 | 55 |
| | Supramarginal gyrus | R | 54/-48/30 | 5.96 | 39 |
| | | L | -6/-57/45 | 5.96 | 53 |
| | Cerebelum | R | 27/-63/-21 | 5.73 | 36 |
| | Cerebelum | R | 42/-72/-27 | 5.46 | |
| | Cuneus | L | -18/-57/12 | 5.56 | 110 |
| | Cuneus | L | -12/-51/3 | 5.48 | |
| | Precuneus | L | -3/-69/21 | 5.45 | |
| | Middle occipital gyrus | R | 36/-84/3 | 5.44 | 19 |
| | Cuneus | R | 21/-51/12 | 5.26 | 7 |
| **Mother vs. Celebrity** | Medial frontal gyrus | L | -6/51/-3 | 8.94 | 671 |
| | Anterior cingulate gyrus | L | -6/33/-6 | 8.75 | |
| | Superior frontal gyrus | L | -21/39/33 | 8.18 | |
| | Medial frontal gyrus | R | 18/48/15 | 5.91 | 39 |
| **Self vs. Mother** | Medial frontal gyrus | L | -3/39/6 | 7.97 | 236 |
| | Middle temporal gyrus | L | -54/-54/3 | 7.36 | 245 |
| | Supramarginal gyrus | L | -57/-45/24 | 5.38 | |
| | Precuneus | L | -18/-66/27 | 6.14 | 187 |

| | | | | | |
|---|---|---|---|---|---|
| | Posterior cingulate gyrus | L | -12/-51/9 | 6.05 | |
| | Cuneus | L | -18/-57/21 | 5.7 | |
| | Cuneus | R | 21/-54/15 | 5.96 | 64 |
| | Cerebelum | R | 15/-69/-15 | 5.92 | 148 |
| | Cerebelum | R | 21/-75/-21 | 5.76 | |
| | Cerebelum | R | 30/-66/-21 | 5.3 | |
| | Middle occipital gyrus | L | -30/-87/6 | 5.82 | 57 |
| | Middle cingulate gyrus | R | 0/-15/39 | 5.71 | 27 |
| | Middle occipital gyrus | R | 33/-81/3 | 5.46 | 39 |
| | Middle temporal gyrus | L | -57/-30/-3 | 5.41 | 20 |
| | Precuneus | L | -6/-48/48 | 5.39 | 16 |
| | Superior occipital gyrus | L | -24/-78/21 | 5.32 | 16 |
| | Lingual gyrus | L | -15/-87/-6 | 5.21 | 50 |
| | Lingual gyrus | L | -21/-69/-12 | 5.17 | |
| | Lingual gyrus | L | -18/-75/-6 | 5.09 | |

L, left; R, right. Voxel-wise $P$(FWE) < 0.05.

**Supplementary Table 7.** Brain regions from univariate activation analysis of dimensions across identities.

| Contrast | Region | L/R | x/y/z (MNI) | t-value | cluster size |
|---|---|---|---|---|---|
| | | **Across Identities** | | | |
| **Social vs. Mental** (activation) | Middle cingulate gyrus | | 0/-36/39 | 18.47 | 6810 |
| | Precuneus | L | -36/-72/33 | 17.70 | |
| | Inferior parietal gyrus | L | -33/-63/45 | 16.33 | |
| | Middle temporal gyrus | R | 57/-45/-12 | 11.16 | 283 |
| | Inferior temporal gyrus | R | 60 -18 -24 | 8.50 | |
| | Medial frontal gyrus | L | -6/33/-15 | 6.24 | 32 |
| | Medial frontal gyrus | R | 36/48/-9 | 5.87 | 10 |
| | Fusiform gyrus | L | -30/-33/-18 | 13.42 | 982 |
| | Fusiform gyrus | R | 30/-27/-21 | 10.06 | 121 |
| | Superior frontal gyrus | L | -21/54/3 | 6.60 | 26 |
| | Middle frontal gyrus | L | -24/15/48 | 13.47 | 1245 |
| | Middle frontal gyrus | L | -42/12/30 | 10.92 | |
| | Middle frontal gyrus | R | 30/18/48 | 11.58 | 918 |
| | Cerebelum | L | -33/-69/-48 | 8.57 | 84 |
| | Cerebelum | L | -9/-75/-30 | 8.36 | 69 |
| | Cerebelum | R | 6/-51/-51 | 10.83 | 69 |
| | Cerebelum | R | 36/-69/-45 | 9.10 | 95 |
| | Lingual gyrus | R | 18/-75/-9 | 7.44 | 157 |
| **Social vs. Mental** (deactivation) | Middle occipital gyrus | L | -24/-99/0 | 7.47 | 43 |
| | Middle occipital gyrus | R | 30/-96/0 | 8.07 | 55 |
| | Anterior cingulate gyrus | L | -6/27/24 | 6.81 | 85 |
| | Insula | L | -39/9/-9 | 5.84 | 16 |
| | Fusiform gyrus | R | 36/-45/0 | 5.49 | 9 |
| | Superior frontal gyrus | L | -6/15/57 | 5.18 | 7 |
| **Social vs. Physical** (activation) | Inferior temporal gyrus | L | -57/-9/-24 | 12.35 | 565 |
| | Middle temporal gyrus | L | -63/-39/-6 | 7.89 | |

| | | | | | |
|---|---|---|---|---|---|
| | Inferior frontal gyrus | L | -45/21/-36 | 6.94 | |
| | Superior temporal gyrus | R | 51/-51/21 | 13.95 | 1607 |
| | Angular | R | 51/-60/24 | 13.04 | |
| | Parahippocampa gyrus | L | -30/-30/-18 | 12.03 | 137 |
| | Parahippocampa gyrus | R | 27/-24/-24 | 9.71 | 83 |
| | Anterior cingulate gyrus | R | 3/42/-12 | 10.70 | 323 |
| | Cerebelum | R | 6/-51/-48 | 6.82 | 26 |
| | Precuneus | L | -6/-57/21 | 13.72 | 1290 |
| | Posterior cingulate gyrus | L | -6/-51/15 | 13.64 | |
| | Middle cingulate gyrus | L | -3/-39/36 | 11.43 | |
| | Middle frontal gyrus | L | -24/24/45 | 9.27 | 322 |
| | Middle frontal gyrus | R | 24/27/45 | 8.51 | 225 |
| | Middle occipital gyrus | R | -39/-69/33 | 15.94 | 827 |
| | Superior temporal gyrus | L | -51/-57/21 | 12.12 | |
| **Social vs. Physical** (deactivation) | Inferior frontal gyrus | L | -42/36/12 | 13.06 | 781 |
| | Lingual gyrus | R | 15/-75/-6 | 11.79 | 1400 |
| | Lingual gyrus | L | -12/-84/-3 | 11.56 | |
| | Inferior frontal gyrus | R | 45/42/9 | 11.42 | 417 |
| | Insula | R | 30/21/3 | 6.66 | |
| | Supplementary motor area | | 0/15/51 | 10.77 | 631 |
| | Medial frontal gyrus | R | 3/24/42 | 10.07 | |
| | Middle frontal gyrus | L | -27/-3/51 | 6.55 | |
| | Cerebelum | R | 21/-72/-48 | 8.09 | 84 |
| | Superior parietal gyrus | R | 54/-36/57 | 5.51 | 15 |
| | Postcentral gyrus | R | 60/-27/48 | 5.28 | |
| | Inferior parietal gyrus | L | -42/-42/39 | 5.40 | 7 |
| **Mental vs. Physical** (activation) | Middle cingulate gyrus | | 0/-18/39 | 7.31 | 27 |
| | Superior frontal gyrus | R | 6/57/24 | 9.11 | 619 |
| | Superior frontal gyrus | L | -9/57/21 | 6.98 | |

| | | | | | |
|---|---|---|---|---|---|
| | Anterior cingulate gyrus | R | 12/51/12 | 8.42 | |
| | Middle occipital gyrus | R | 42/-84/9 | 8.49 | 72 |
| | Superior temporal gyrus | R | 63/-54/21 | 6.34 | 29 |
| | Middle temporal gyrus | L | -45/15/-36 | 6.64 | 58 |
| | Inferior frontal gyrus | L | -36/18/-18 | 6.32 | |
| | Middle temporal gyrus | R | 48/15/-33 | 7.73 | 29 |
| | Cerebelum | L | -21/-87/-36 | 5.97 | 12 |
| **Mental vs. Physical** (deactivation) | Cuneus | R | 9/-87/3 | 14.92 | 6988 |
| | Cuneus | L | -9/-87/-3 | 14.55 | |
| | Lingual gyrus | R | 15/-75/-9 | 13.64 | |
| | Inferior frontal gyrus | L | -45/9/27 | 14.47 | 1998 |
| | Inferior frontal gyrus | R | 45/36/12 | 13.87 | 1149 |
| | Middle temporal gyrus | R | 54/-48/-12 | 11.35 | 87 |
| | Middle cingulate gyrus | R | 3/-33/36 | 10.86 | 319 |
| | Anterior cingulate gyrus | R | 6/3/27 | 8.72 | 64 |
| | Anterior cingulate gyrus | L | -3/9/24 | 6.52 | |
| | Middle frontal gyrus | R | 30/15/51 | 8.09 | 190 |
| | Hippocampus | R | 27/-30/-3 | 7.93 | 92 |
| | Thalamus | R | 18/-24/9 | 5.11 | |
| | Cerebelum | R | 15/-45/-48 | 6.10 | 19 |

L, left; R, right. Voxel-wise $P$(FWE) < 0.05.

## References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