

**Supplementary Materials for MacCormack, J. K., Stein, A. G., Kang, J., Giovanello, K. S., Satpute, A. B., & Lindquist, K. A. (2020). Affect in the aging brain: A neuroimaging meta-analysis of older vs. younger adult affective experience and perception. *Affective Science*.**

In these supplementary materials, we provide more thorough and extensive information about additional and secondary analyses that support and complement the primary findings presented in the main text. We report these supplementary findings in hopes that these additional details will prove useful for future neuroimaging studies on affective aging. Below are listed the tables provided herein. Note that OA=Older Adult, YA=Younger Adult.

**Figure S1. PRISMA diagram.** This PRISMA diagram summarizes the literature search and study screening, eligibility, and inclusion process.

**Table S1. Descriptive summary of cognitive assessments.** This table summarizes how different studies assessed and ensured that older adult participants did not have significant cognitive declines that could impair or confound their performance on in-scanner affect tasks.

**Table S2. Overall neural reference space for affect across age.** We report the regions that are more reliably activated during affect for contrasts [OA>YA]+[OA>OA]+[YA>OA]+[YA>YA].

**Tables S3-S4. Meta-analytic contrasts.** Here, we report findings for [OA>YA]>[YA>OA] and [YA>OA]>[OA>YA] meta-analytic contrasts. The motivation for these additional analyses was to determine the specificity of contrast effects observed by subtracting out anything due to chance within each age group. Although less straightforward to interpret than the simpler YA>OA and OA>YA contrasts (as presented in the main text), these secondary analyses allowed us to combine all YA>OA and OA>YA contrasts and provide more power to provisionally examine contrast effects.

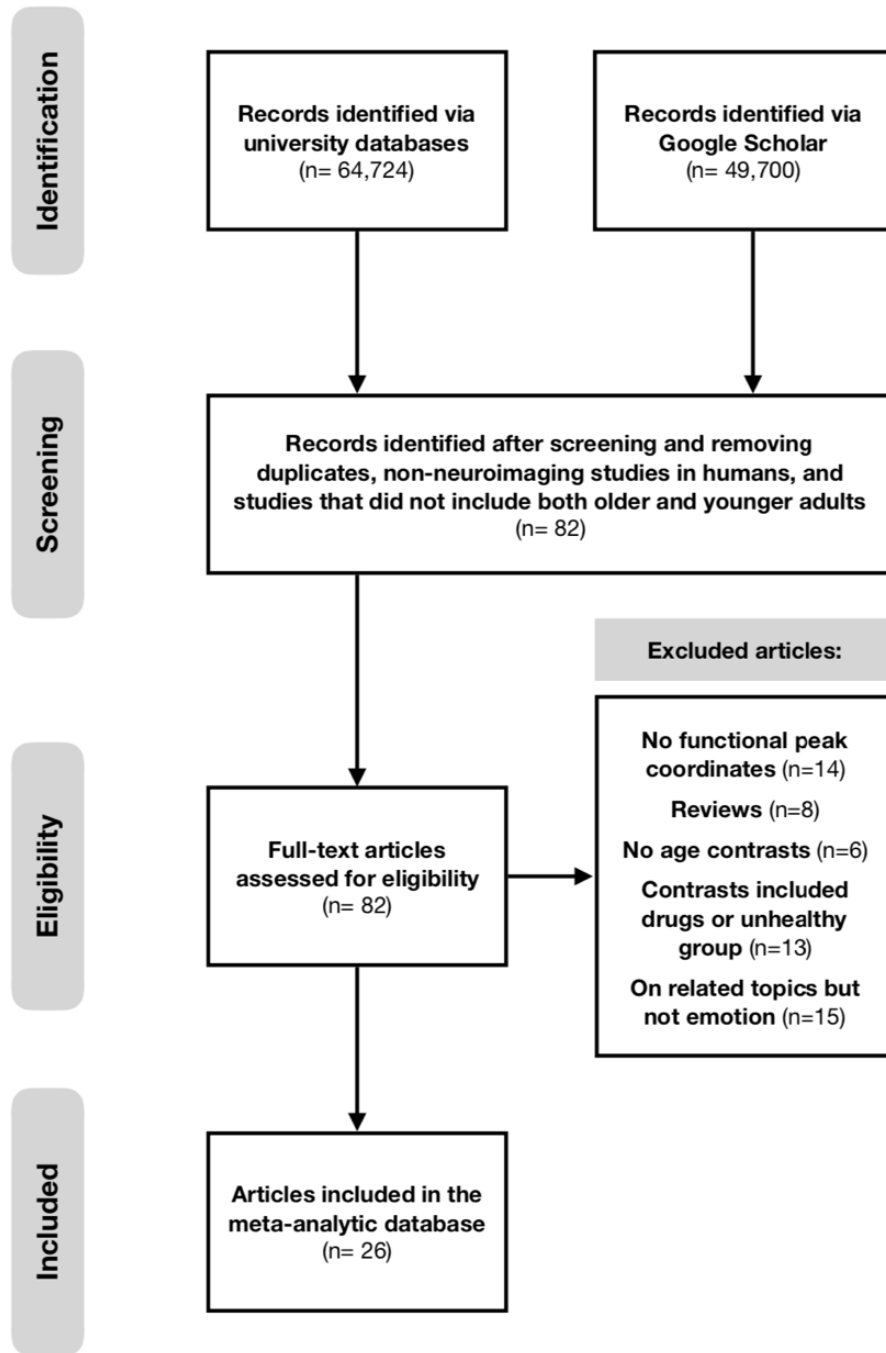
**Tables S5-S6. Age differences in functional activation for affective experience and perception.** We report neural differences for age differences in affective experiences and affective perception.

**Table S7. Exploratory analyses of positive affect.** Given much emphasis on the positivity effect in the affective aging literature, we conducted exploratory analyses on positive affect. We first conducted an exploratory analysis of OA > YA adult functional brain activation during positive > neutral and positive > negative affect tasks (k-threshold corrected), but results should be interpreted with caution given that these findings are based on few contrasts (8/72 between-age contrasts). There were no significant clusters of activation for YA > OA adult positive affect. It is also possible that the positivity effect found in older adults may not just apply to between-age differences (e.g., older adults experience greater positive affect than younger adults) but could also encompass within-age differences (e.g., older adults experience greater positive affect relative to neutral or negative affect). As such, we also present within-age older adult positive affect findings (OA>OA), but again caution that findings should be taken as preliminary (10/92 within-age contrasts).

**Tables S8-S9. Functional coactivation correlations.** We present the full correlations for regions of functional coactivation, corrected for multiple comparisons.

**Tables S10-S11. Supplementary graph theory metrics for OA>YA and YA>OA regions of functional connectivity across affect.** These tables detail the full set of values for the network statistics of eigenvector centrality, betweenness centrality, and local efficiency that are also reported in the main text.

**Figure S1. PRISMA diagram summarizing the literature search and study screening, eligibility, and inclusion process.** Note there were 26 articles but 27 studies in total (as one paper contained two independent studies).



**Table S1. Cognitive testing and screening conducted with older adults in meta-analytic database studies.**

<b>Study</b>	<b>Cognitive Processes</b>	<b>Cognitive Assessments</b>
Allard et al. (2014)	<ul style="list-style-type: none"> <li>• Verbal intelligence</li> <li>• Verbal fluency</li> <li>• Working memory</li> <li>• Cognitive reasoning</li> </ul>	<ul style="list-style-type: none"> <li>• Shipley Institute of Living Scale</li> <li>• Wisconsin Card Sorting Test</li> <li>• Controlled Oral Word Association Test (FAS)</li> <li>• Wechsler Adult Intelligence Scale (WAIS-III) – mental arithmetic subtest</li> <li>• Wechsler Memory Scale (WMS-III) – mental control subtest &amp; backward digit span subtest</li> </ul>
Brassen et al. (2011)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal fluency</li> <li>• Verbal intelligence</li> <li>• Executive function</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Boston Naming Test</li> <li>• CERAD Verbal Fluency Task</li> <li>• CERAD Word List Learning, Recall, and Recognition Tasks</li> <li>• CERAD Constructional Praxis Task and Recall Task</li> <li>• Multiple-Choice Vocabulary Test, Version B</li> </ul>
Cassidy et al. (2013)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal fluency</li> <li>• Verbal intelligence</li> <li>• Processing speed</li> <li>• Working memory</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Shipley Institute of Living Scale – vocabulary subtest</li> <li>• Digit-Comparison Task</li> <li>• Wechsler Memory Scale – letter-number sequencing subtest</li> </ul>
Dolcos et al. (2014)	<ul style="list-style-type: none"> <li>• Cognitive impairments</li> </ul>	<ul style="list-style-type: none"> <li>• “A number of questionnaires and cognitive measures were used for inclusion/exclusion purposes” – although not specified which ones</li> </ul>
Ebner et al. (2012)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal fluency</li> <li>• Verbal intelligence</li> <li>• Processing speed</li> <li>• Episodic memory</li> <li>• Working memory</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Verbal Fluency Task</li> <li>• Synonyms Reasoning Blocks: 1</li> <li>• Letter Comparison Task</li> <li>• Free Word Recall Task</li> <li>• 2-Back Digits Task</li> </ul>
Everaerd et al. (2017)	<ul style="list-style-type: none"> <li>• Cognitive impairments</li> </ul>	<ul style="list-style-type: none"> <li>• Cognitive screening conducted by a physician</li> </ul>
Fischer et al. (2005)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> </ul>

<b>Study (Continued)</b>	<b>Cognitive Processes (Continued)</b>	<b>Cognitive Assessments (Continued)</b>
Fischer et al. (2010)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Memory capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Synonyms Reasoning Blocks: 1</li> <li>• Experimental memory task</li> </ul>
Gunning-Dixon et al. (2003)	<ul style="list-style-type: none"> <li>• None mentioned</li> </ul>	<ul style="list-style-type: none"> <li>• None mentioned</li> </ul>
Iidaka et al. (2002)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal and visual memory</li> </ul>	<ul style="list-style-type: none"> <li>• Trail Making Test: Part A</li> <li>• Digit Symbol Test</li> <li>• Wechsler Memory Scale: verbal paired associates, word recall, figure recall subtests</li> </ul>
Kehoe et al. (2013)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal fluency</li> <li>• Verbal intelligence</li> <li>• Executive function</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Boston Naming Test</li> <li>• CERAD Verbal Fluency Task</li> <li>• CERAD Word List Learning, Recall, and Recognition Tasks</li> <li>• CERAD Constructional Praxis Task and Recall Task</li> <li>• National Adult Reading Test</li> </ul>
Keightley et al. (2007)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal fluency</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Vocabulary Test</li> </ul>
Kensinger et al. (2008)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal intelligence</li> <li>• Working memory</li> <li>• Processing speed</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Forward and Backward Digit Span Tasks</li> <li>• Wechsler Adult Intelligence Scale (WAIS-III) – digit/symbol substitution subtest</li> <li>• Wechsler Adult Intelligence Scale (WAIS-III) – vocabulary subtest</li> </ul>
Leclerc et al. (2008)	<ul style="list-style-type: none"> <li>• None mentioned</li> </ul>	<ul style="list-style-type: none"> <li>• None mentioned</li> </ul>
Leclerc et al. (2010): Study 1	<ul style="list-style-type: none"> <li>• Verbal intelligence</li> <li>• Processing speed</li> </ul>	<ul style="list-style-type: none"> <li>• Shipley Institute of Living Scale – vocabulary subtest</li> <li>• Wechsler Adult Intelligence Scale (WAIS-III) – digit/symbol substitution subtest</li> </ul>
Leclerc et al. (2010): Study 2	<ul style="list-style-type: none"> <li>• Verbal intelligence</li> <li>• Verbal fluency</li> <li>• Processing speed</li> <li>• Working memory</li> </ul>	<ul style="list-style-type: none"> <li>• Shipley Institute of Living Scale – vocabulary subtest</li> <li>• Controlled Oral Word Association Test (FAS)</li> <li>• Wechsler Adult Intelligence Scale (WAIS-III) – digit/symbol substitution subtest</li> <li>• Wechsler Adult Intelligence Scale (WAIS-III) – backward digit span subtest</li> </ul>
Leclerc et al. (2011)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal intelligence</li> <li>• Processing speed</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Shipley Institute of Living Scale – vocabulary subtest</li> <li>• Wechsler Adult Intelligence Scale (WAIS-III) – digit/symbol subtest</li> </ul>

<b>Study (Continued)</b>	<b>Cognitive Processes (Continued)</b>	<b>Cognitive Assessments (Continued)</b>
Murty et al. (2009)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal intelligence</li> <li>• Processing speed</li> <li>• Executive function</li> <li>• Memory function</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Wechsler Adult Intelligence Scale Revised (WAIS-R)</li> <li>• Trail Making Test: Parts A and B</li> <li>• Word Fluency, Category Fluency, and Number/Letter Sequencing Tests</li> <li>• Wechsler Memory Scale-Revised: logical memory immediate and delayed recall subtests</li> </ul>
Paradiso et al. (1997)	<ul style="list-style-type: none"> <li>• Verbal intelligence</li> <li>• Performance intelligence</li> </ul>	<ul style="list-style-type: none"> <li>• Wechsler Adult Intelligence Scale – verbal and performance scales</li> </ul>
Paradiso et al. (2003)	<ul style="list-style-type: none"> <li>• Verbal intelligence</li> <li>• Performance intelligence</li> <li>• Prosopagnosia</li> <li>• Visual discrimination</li> </ul>	<ul style="list-style-type: none"> <li>• Wechsler Adult Intelligence Scale – verbal and performance scales</li> <li>• Benton Facial Recognition Test</li> <li>• Benton Visual Form Discrimination Test</li> </ul>
Ritchey et al. (2011)	<ul style="list-style-type: none"> <li>• Verbal intelligence</li> <li>• Verbal fluency</li> <li>• Working memory</li> <li>• Cognitive reasoning</li> </ul>	<ul style="list-style-type: none"> <li>• Wisconsin Card Sorting Test</li> <li>• Controlled Oral Word Association Test (FAS)</li> <li>• Wechsler Adult Intelligence Scale (WAIS-III) – mental arithmetic subtest</li> <li>• Wechsler Memory Scale (WMS-III) – mental control subtest &amp; backward digit span subtest</li> </ul>
Roalf et al. (2011)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal intelligence</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Wechsler Adult Intelligence Scale Revised (WAIS-R)</li> </ul>
St. Jacques et al. (2009 & 2010)	<ul style="list-style-type: none"> <li>• None mentioned</li> </ul>	<ul style="list-style-type: none"> <li>• None mentioned</li> </ul>
Tessitore et al. (2005)	<ul style="list-style-type: none"> <li>• None mentioned</li> </ul>	<ul style="list-style-type: none"> <li>• None mentioned</li> </ul>
Wright et al. (2006)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> <li>• Verbal intelligence</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> <li>• Boston Naming Test</li> <li>• National Adult Reading Test</li> </ul>
Zsoldos et al. (2016)	<ul style="list-style-type: none"> <li>• Subclinical dementia and mild cognitive impairments</li> </ul>	<ul style="list-style-type: none"> <li>• Mini-Mental State Examination</li> </ul>

**Table S2. Overall neural reference space for affect across age, k-threshold corrected at  $p < .01$ .**

<i>Region</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>k</i>
<b>R Parahippocampal Gyrus</b>	<b>24</b>	<b>-3</b>	<b>-27</b>	<b>2345</b>
R Parahippocampal Gyrus	24	-3	-27	
R Middle Frontal Gyrus	45	24	21	
R Declive	30	-54	-15	
R Inferior Frontal Gyrus	39	15	24	
R Inferior Frontal Gyrus	36	27	-3	
R Inferior Frontal Gyrus	27	24	-9	
R Fusiform Gyrus	39	-42	-21	
R Precentral Gyrus	45	6	27	
R Parahippocampal Gyrus	21	-39	-9	
R Sub-Gyral	18	30	-6	
R Inferior Occipital Gyrus	24	-87	-9	
R Lingual Gyrus	18	-72	-6	
R Precentral Gyrus	42	18	3	
R Claustrum	33	15	-3	
R Parahippocampal Gyrus	24	-30	-21	
R Claustrum	21	27	3	
R Culmen	30	-48	-27	
R Precentral Gyrus	27	9	24	
R Precentral Gyrus	45	-3	33	
R Fusiform Gyrus	36	-69	-18	
R Lentiform Nucleus	27	-15	-12	
<b>L Parahippocampal Gyrus</b>	<b>-24</b>	<b>-3</b>	<b>-24</b>	<b>769</b>
L Parahippocampal Gyrus	-24	-3	-24	
L Fusiform Gyrus	-39	-66	-18	
L Parahippocampal Gyrus	-24	-33	-15	
L Fusiform Gyrus	-36	-57	-12	
L Declive	-27	-60	-12	
L Fusiform Gyrus	-45	-57	-15	
L Parahippocampal Gyrus	-24	-54	-3	
L Parahippocampal Gyrus	-27	-42	-15	
L Lingual Gyrus	-18	-45	-6	
L Thalamus	-21	-27	3	
L Culmen	-18	-45	-15	
<b>L Middle Frontal Gyrus</b>	<b>-42</b>	<b>18</b>	<b>24</b>	<b>282</b>
L Middle Frontal Gyrus	-42	18	24	
L Middle Frontal Gyrus	-30	15	21	
L Precentral Gyrus	-39	3	33	

**Notes.** *x*, *y*, *z* = coordinates in Montreal Neurological Institute (MNI) space; *k* = cluster size in mm<sup>3</sup>; L = left, R = right.

**Table S3. Meta-analytic contrasts comparing [younger > older] > [older > younger] for affect, valence, and arousal.**

<i>Region</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>k</i>	<i>p</i>
<i>Affect Overall</i>					
<b>L Parahippocampal Gyrus</b>	<b>-27</b>	<b>-27</b>	<b>-18</b>	<b>399</b>	<b>&lt;.01</b>
L Parahippocampal Gyrus	-27	-27	-18		<.01
L Lingual Gyrus	-18	-63	-3		<.01
L Uncus	-18	-3	-33		<.01
L Amygdala	24	-9	-24		<.01
<b>L Caudate</b>	<b>-12</b>	<b>-12</b>	<b>30</b>	<b>216</b>	<b>&lt;.01</b>
L Caudate	-12	-12	30		<.01
L Caudate	-15	3	12		<.01
L Thalamus	-6	-6	21		<.01
R Mid-Cingulate Gyrus	6	9	27		<.01
R Thalamus	9	-6	18		<.01
<i>Negative Affect</i>					
<b>L Parahippocampal Gyrus</b>	<b>-27</b>	<b>-27</b>	<b>-21</b>	<b>266</b>	<b>&lt;.01</b>
L Parahippocampal Gyrus	-27	-27	-21		<.01
L Parahippocampal Gyrus	-24	-9	-24		<.01
L Parahippocampal Gyrus	-24	-36	-12		<.01
<b>L Lentiform nucleus</b>	<b>-15</b>	<b>6</b>	<b>6</b>	<b>279</b>	<b>&lt;.01</b>
L Lentiform nucleus	-15	6	6		<.01
Thalamus	-3	-6	21		<.01
<b>R Parahippocampal Gyrus</b>	<b>27</b>	<b>-3</b>	<b>-27</b>	<b>191</b>	<b>&lt;.01</b>
R Parahippocampal Gyrus	27	-3	-27		<.01
R Claustrum	27	15	-15		<.01
R Parahippocampal Gyrus	12	0	-21		<.01
<i>Positive Affect</i>					
<b>L Caudate</b>	<b>-9</b>	<b>21</b>	<b>6</b>	<b>280</b>	<b>&lt;.01</b>
L Caudate	-9	21	6		<.01
R Thalamus	6	-3	21		<.01
<i>High Arousal Affect</i>					
<b>L Lentiform Nucleus</b>	<b>-15</b>	<b>6</b>	<b>6</b>	<b>258</b>	<b>&lt;.01</b>
L Lentiform Nucleus	-15	6	6		<.01
L Thalamus	-6	-6	21		<.01
L Caudate	-12	-12	30		<.01
<i>Low Arousal Affect</i>					
<b>L Uncus</b>	<b>-15</b>	<b>-3</b>	<b>-33</b>	<b>983</b>	<b>&lt;.05</b>
L Uncus	-15	-3	-33		<.05
L Superior Temporal Gyrus	-51	12	-18		<.05
L Superior Temporal Gyrus	-33	3	-30		<.05
L Inferior Frontal Gyrus	-45	36	-9		<.05
L Middle Frontal Gyrus	-21	39	-3		<.05
L Inferior Frontal Gyrus	-33	39	-3		<.05
L Parahippocampal Gyrus	-18	0	-21		<.05
L Medial Frontal Gyrus	-9	51	6		<.05
L Inferior Frontal Gyrus	-36	27	-18		<.05
L Inferior Frontal Gyrus	-42	45	-12		<.05
<b>R Culmen</b>	<b>12</b>	<b>-39</b>	<b>-18</b>	<b>1156</b>	<b>&lt;.05</b>
R Culmen	12	-39	-18		<.05
R Transverse Temporal Gyrus	36	-33	9		<.05

R Parahippocampal Gyrus	27	-51	-9	<.05
R Insula	39	-15	9	<.05
R Superior Temporal Gyrus	51	-12	3	<.05
R Superior Temporal Gyrus	42	-51	15	<.05
L Parahippocampal Gyrus	-27	-48	-9	<.05
L Parahippocampal Gyrus	-21	-39	-12	<.05
R Middle Temporal Gyrus	33	-54	30	<.05
L Culmen	-12	-48	-15	<.05

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**Notes.**  $x$ ,  $y$ ,  $z$  = coordinates in Montreal Neurological Institute (MNI) space;  $k$  = cluster size in mm<sup>3</sup>; L = left, R = right.  $P$ -values are  $k$ -thresholded.



**Table S4. Meta-analytic contrasts comparing [older > younger] > [younger > older] for affect, valence, and arousal.**

<i>Region</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>k</i>	<i>p</i>
<i>Affect Overall</i>					
<b>L Medial Frontal Gyrus</b>	<b>0</b>	<b>57</b>	<b>18</b>	<b>557</b>	<b>&lt;.02</b>
L Medial Frontal Gyrus	0	57	18		<.02
R Inferior Frontal Gyrus	27	30	-3		<.02
R Anterior Cingulate	12	42	0		<.02
R Medial Frontal Gyrus	9	42	15		<.02
R Claustrum	27	15	-15		<.02
L Anterior Cingulate	-12	36	18		<.02
<i>Negative Affect</i>					
<b>R Superior Frontal Gyrus</b>	<b>21</b>	<b>45</b>	<b>36</b>	<b>675</b>	<b>&lt;.05</b>
R Superior Frontal Gyrus	21	45	36		<.05
R Medial Frontal Gyrus	9	42	18		<.05
R Anterior Cingulate	12	39	-3		<.05
R Medial Frontal Gyrus	6	47	18		<.05
R Inferior Frontal Gyrus	27	33	0		<.05
R Medial Frontal Gyrus	3	36	39		<.05
<i>Positive Affect</i>					
Nothing significant					
<i>High Arousal Affect</i>					
<b>L Medial Frontal Gyrus</b>	<b>0</b>	<b>57</b>	<b>15</b>	<b>378</b>	<b>&lt;.01</b>
L Medial Frontal Gyrus	0	57	15		<.01
R Inferior Frontal Gyrus	27	30	-3		<.01
R Anterior Cingulate	12	42	0		<.01
R Claustrum	27	15	-15		<.01
L Medial Frontal Gyrus	-3	45	21		<.01
<b>L Caudate</b>	<b>-9</b>	<b>21</b>	<b>6</b>	<b>257</b>	<b>&lt;.01</b>
L Caudate	-9	21	6		<.01
R Caudate	9	15	15		<.01
R Cingulate	3	0	21		<.01
L Caudate	-12	3	9		<.01
R Cingulate	6	9	36		<.01
L Thalamus	-9	-15	15		<.01
<i>Low Arousal Affect</i>					
<b>L Anterior Cingulate</b>	<b>-12</b>	<b>36</b>	<b>18</b>	<b>333</b>	<b>&lt;.02</b>
L Anterior Cingulate	-12	36	18		<.02
L Inferior Frontal Gyrus	-15	30	-3		<.02
L Middle Frontal Gyrus	-24	39	33		<.02
L Anterior Cingulate	-9	45	0		<.02

**Notes.** *x*, *y*, *z* = coordinates in Montreal Neurological Institute (MNI) space; *k* = cluster size in mm<sup>3</sup>; L = left, R = right. No regions were significant for positive affect at any threshold. *P*-values are k-thresholded.

**Table S5. Exploratory analyses of older adult positive affect, k-threshold corrected.**

<i>Region</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>k</i>	<i>p</i>
<i>Between-Age Older Adult Positive Affect (OA&gt;YA)</i>					
<b>L Caudate Head (cluster)</b>	<b>-10</b>	<b>23</b>	<b>5</b>	<b>5093</b>	<b>&lt;.02</b>
L Caudate Head	-10	23	5		<.02
L Anterior Cingulate	-7	36	14		<.02
L Posterior Cingulate	-3	-41	17		<.02
L Putamen	-25	-2	-7		<.02
L Medial Frontal Gyrus	-4	42	25		<.02
R Superior Frontal Gyrus	19	52	2		<.02
R Medial Frontal Gyrus	19	60	-7		<.02
R Postcentral Gyrus	28	-29	33		<.02
R Caudate Tail	25	-38	22		<.02
R Thalamus (Pulvinar)	9	-32	17		<.02
R Caudate Body	13	2	23		<.02
R Posterior Cingulate	3	-43	24		<.02
L Cingulate Gyrus	0	-43	32		<.02
L Anterior Cingulate	-3	18	16		<.02
R Anterior Cingulate	3	24	10		<.02
R Anterior Cingulate	4	29	-1		<.02
R Insula	40	-43	18		<.02
R Caudate Body	22	-8	19		<.02
R Medial Frontal Gyrus	19	49	13		<.02
R Paracentral Lobule	10	-30	41		<.02
R Medial Frontal Gyrus	12	47	21		<.02
R Superior Frontal Gyrus	12	57	17		<.02
L Thalamus	-18	-23	5		<.02
<i>Within-Age Older Adult Positive Affect (OA&gt;OA)</i>					
<b>L Medial Temporal Gyrus</b>	<b>-51</b>	<b>-42</b>	<b>9</b>	<b>744</b>	<b>&lt;.05</b>
L Medial Temporal Gyrus	-51	-42	9		<.05
L Medial Temporal Gyrus	-51	-33	3		<.05
L Medial Temporal Gyrus	-57	-48	0		<.05
L Medial Temporal Gyrus	-42	-68	21		<.05
L Medial Temporal Gyrus	-36	-72	18		<.05
L Superior Temporal Gyrus	-48	-33	12		<.05

**Notes.** BA = Brodmann Area; *x*, *y*, *z* = coordinates in Montreal Neurological Institute (MNI) space; *k* = cluster size in mm<sup>3</sup>; L = left, R = right. *P*-values are k-thresholded. The within-age analysis includes any within-age (OA>OA) study-level contrasts where positive affect was the target. We also examined a meta-analytic contrast of [OAOA Positive Affect > (OAOA Negative Affect + OAOA Neutral Affect)] but there were no regions of activation that survived k-threshold correction.

**Table S6. Coordinates for younger > older adult affective experience and perception, k-threshold corrected at  $p < .01$ .**

<i>Region</i>	<i>BA</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>k</i>
<i>Affective Experience</i>					
<b>L Parahippocampal Gyrus (cluster)</b>	<b>27</b>	<b>-23</b>	<b>-31</b>	<b>-8</b>	<b>683</b>
L Parahippocampal Gyrus	27	-23	-31	-8	
L Parahippocampal Gyrus	18	-25	-57	3	
L Hippocampus		-27	-32	-1	
L Parahippocampal Gyrus	28	-20	-23	-9	
L Fusiform Gyrus	19	-22	-66	-4	
L Amygdala		-27	-4	-17	
L Superior Temporal Gyrus	38	-37	5	-18	
L Hippocampus		-33	-12	-17	
L Superior Temporal Gyrus	38	-46	4	-10	
L Insula	13	-34	-19	12	
L Posterior Cingulate	30	-23	-70	6	
L Hippocampus		-27	-41	1	
L Lingual Gyrus	18	-12	-57	6	
L Thalamus		-27	-24	4	
L Putamen		-25	4	-5	
L Insula	13	-31	-13	17	
<b>L Caudate Body (cluster)</b>		<b>-16</b>	<b>-9</b>	<b>23</b>	<b>361</b>
L Caudate Body		-16	-9	23	
R Cingulate Gyrus	24	7	5	23	
L Caudate Body		-16	8	17	
L Cingulate Gyrus	24	-3	-6	28	
L Caudate Body		-6	8	16	
L Anterior Cingulate	33	-3	18	16	
L Caudate Body		-13	11	9	
L Anterior Cingulate	24	-4	15	23	
<i>Affective Perception</i>					
<b>R Parahippocampal Gyrus (cluster)</b>	<b>35</b>	<b>20</b>	<b>-30</b>	<b>-7</b>	<b>570</b>
R Parahippocampal Gyrus	35	20	-30	-7	
R Lingual Gyrus	19	22	-62	1	
R Parahippocampal Gyrus	19	21	-48	-4	

**Notes.** *BA* = Brodmann Area; *x*, *y*, *z* = coordinates in Montreal Neurological Institute (MNI) space; *k* = cluster size in mm<sup>3</sup>; L = left, R = right.

**Table S7. Coordinates for older > younger adult affective perception, k-threshold corrected at  $p < .05$ .**

<i>Region</i>	<i>BA</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>k</i>
<i>Affective Perception</i>					
<b>R Medial Frontal Gyrus (cluster)</b>	<b>10</b>	<b>18</b>	<b>44</b>	<b>5</b>	<b>2134</b>
R Medial Frontal Gyrus	10	18	44	5	
R Middle Frontal Gyrus	9	35	45	36	
R Superior Frontal Gyrus	10	26	44	20	
R Middle Frontal Gyrus	11	28	37	-1	
L Medial Frontal Gyrus	9	-4	42	25	
R Middle Frontal Gyrus	8	41	37	44	
R Middle Frontal Gyrus	10	23	57	18	

**Notes.** BA = Brodmann Area; x, y, z = coordinates in Montreal Neurological Institute (MNI) space; k = cluster size in mm<sup>3</sup>; L = left, R = right. Nothing was significant for OA>YA Affective Experience at  $p < .01$ , .02, or .05.

**Table S8. Coactivation correlation matrix for younger>older adult affect, FDR-corrected for multiple comparisons.**

Region	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. R Amygdala	.49	.80	.49	.49	-.13	.40	.48	.40	.38	-.06	-.05	.23	-.02	.07	.28	.18
2. R Hippocampus		.48	.12	.30	-.05	.17	.62	-.02	.30	.22	.21	-.26	.09	.17	.25	-.05
3. R Parahippocampal			.48	.65	-.05	.35	.42	.17	.50	.02	-.11	.21	-.08	-.02	.09	.12
4. R Parahippocampal				.30	.30	.73	.42	-.02	.72	.02	.05	.37	.09	.17	.09	-.05
5. R Inferior Frontal					-.05	.17	.42	.59	.50	.02	.05	.21	.09	.17	.42	.30
6. R Culmen						-.02	.02	-.02	.28	.62	.05	.37	-.08	.35	.09	.12
7. R Parahippocampal							.26	-.19	.32	.05	.10	.10	.13	-.19	-.05	-.02
8. R Hippocampus								.26	.63	-.15	.15	-.03	.18	.26	.18	.02
9. R Inferior Frontal									.09	-.17	.10	.44	.13	.41	.48	.54
10. R Parahippocampal										-.13	.21	.21	.24	.32	.03	.06
11. R Parahippocampal											-.03	.15	-.20	.04	.18	.02
12. L Parahippocampal												-.02	.78	.44	.32	.21
13. L Amygdala													.02	.27	.02	.37
14. L Parahippocampal														.31	.05	.09
15. L Parahippocampal															.48	.35
16. L Fusiform																.25
17. L Superior Temporal																

**Note:** Table continued on next page. Red indicates  $p < .05$  with multiple corrections. Orange indicates  $p < .01$  with multiple corrections.

**Table S8 (continued). Coactivation correlation matrix for younger>older adult affect, FDR-corrected for multiple comparisons.**

Region	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1. R Amygdala	.07	.07	.18	.02	-.06	.12	.12	.02	.18	.02	-.26	-.09	.07	-.06	-.26
2. R Hippocampus	-.21	-.02	-.05	.12	.22	.02	.02	.12	.12	.12	-.21	-.02	.17	.02	-.21
3. R Parahippocampal	-.02	-.02	.30	-.05	.02	.02	.22	-.05	-.05	-.05	-.21	-.02	-.02	.02	-.21
4. R Parahippocampal	.17	-.02	.12	-.05	.22	.22	.22	.12	.12	.12	-.02	-.02	-.02	.22	-.02
5. R Inferior Frontal	.17	-.02	.30	.12	.02	.22	.22	-.05	-.05	.30	-.02	-.02	.17	.22	-.21
6. R Culmen	-.02	.17	-.05	.12	.22	.22	.02	-.05	-.23	-.05	-.02	-.21	-.21	.02	-.02
7. R Parahippocampal	.01	.21	.17	-.02	.04	-.17	.26	-.02	.17	-.02	-.19	.01	.01	.04	-.19
8. R Hippocampus	-.17	-.17	.22	.22	.08	.31	.31	.22	.22	.22	-.17	.05	.26	.08	-.17
9. R Inferior Frontal	.21	.01	.17	.35	-.17	.47	.04	-.02	-.02	.35	.01	-.19	.21	.04	-.19
10. R Parahippocampal	.09	-.15	.28	.06	.37	.37	.37	.28	.06	.28	.09	.09	.09	.37	.09
11. R Parahippocampal	-.17	.26	.18	.02	.09	-.15	-.15	-.18	-.18	-.18	-.17	-.17	-.17	-.15	-.17
12. L Parahippocampal	.10	.10	-.11	.21	.33	.15	-.03	.05	-.11	.21	-.07	-.24	-.07	-.03	-.07
13. L Amygdala	.44	-.07	.05	-.11	-.03	.15	-.03	-.11	-.26	.05	-.07	-.24	-.24	-.03	-.07
14. L Parahippocampal	.31	-.05	-.08	.09	.18	.18	-.01	.09	-.08	.25	-.05	-.22	-.05	.01	-.05
15. L Parahippocampal	.21	.01	-.02	.35	.47	.47	.04	.17	.17	.35	.01	.01	.01	.04	.01
16. L Fusiform	.13	.13	-.08	.42	-.01	.37	-.01	-.08	.09	.25	-.05	-.22	.13	-.01	-.22
17. L Superior Temporal	.17	.35	.30	.30	.02	.22	.22	-.23	-.23	-.05	-.21	-.21	-.21	-.18	-.21
18. L Hippocampus		.21	-.02	-.21	.04	.04	-.17	-.02	-.02	.17	.01	-.19	-.19	.04	.01
19. L Superior Temporal			.35	.17	.04	-.17	.04	-.02	.17	-.02	.01	.01	.01	.04	-.19
20. L Posterior Insula				.12	.02	.02	.62	.47	.47	.30	.17	.54	.35	.22	.17
21. L Agran. Retrolimbic					.16	.42	.22	-.05	-.05	.12	-.02	-.21	.17	.02	-.21
22. L Hippocampus						.08	.08	.22	.22	.22	.04	.26	.04	.31	.04
23. L Lingual							.08	.22	.02	.42	.26	-.17	.26	.31	.04
24. L Thalamus								.22	.22	.22	.04	.26	.26	.08	.04
25. R Mid-Cingulate									.65	.65	.54	.54	.54	.42	.54
26. L Caudate Body										.47	.17	.73	.54	.22	.17
27. L Caudate Body											.54	.35	.73	.62	.17
28. L ant. Mid-Cingulate												.21	.41	.47	.60
29. L Mid-Cingulate													.41	.26	.21
30. L Caudate														.69	.01
31. L Caudate															.04
32. R Mid-Cingulate															

**Note:** Table continued from previous page. Red indicates  $p < .05$  with multiple corrections. Orange indicates  $p < .01$  with multiple corrections.

**Table S9. Coactivation correlation matrix for older>younger adult affect, corrected for multiple comparisons.**

Region	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
1. R Anterior Cingulate	.43	.26	.02	.59	.75	.61	.75	.89	.07	.07	.07	.20	.34	.20	.07	.13	.44	.74	.44	.23	
2. R Anterior Cingulate		.20	.20	.70	.43	.53	.43	.36	.03	.19	.28	.14	.28	.36	.03	.09	.38	.09	.38	.19	
3. L Superior Frontal			.02	.37	.02	.07	.02	.20	.87	.27	.07	-.03	.07	.43	.07	.13	.13	.44	.74	.23	
4. L Caudate Body				.15	.02	.07	.02	.20	-.20	.07	.61	-.03	.61	.20	.61	.13	.13	.13	.13	.23	
5. R Medial Frontal					.37	.47	.37	.50	.23	.30	.23	.30	.23	.50	.23	.06	.33	.33	.60	.16	
6. R Middle Frontal						.88	.75	.66	-.20	-.13	.07	.43	.34	-.03	-.20	.13	.74	.44	.13	.23	
7. R Caudate Head							.61	.53	-.17	-.07	.12	.53	.41	.03	-.17	.18	.85	.18	.18	.28	
8. R Superior Frontal								.66	-.20	-.13	.07	.20	.34	-.03	-.20	.13	.44	.44	.13	.59	
9. R Medial Frontal									.03	.00	.28	.14	.53	.14	.28	.09	.38	.66	.38	.19	
10. L Superior Frontal										.15	-.17	-.22	-.17	.28	.12	-.15	-.15	.18	.52	-.12	
11. L Medial Frontal											.37	-.19	-.07	.57	.15	.00	.00	.25	.50	.10	
12. L Anterior Cingulate												.03	.41	.28	.41	.18	.18	.18	.18	.28	
13. R Anterior Insula													.28	.14	-.22	.09	.66	.09	.09	.19	
14. L Caudate Body														.03	.12	.18	.52	.18	.18	.28	
15. R Medial Frontal															.28	.09	.09	.38	.66	.19	
16. L Anterior Cingulate																	-.15	-.15	.18	-.12	
17. R Inferior Frontal																		.25	.25	.35	
18. R Inferior Frontal																			.25	.35	
19. R Medial Frontal																				.63	.35
20. R Medial Frontal																					.35
21. R Mid Frontal																					.35

**Note:** Red indicates  $p < .05$  with multiple corrections. Orange indicates  $p < .01$  with multiple corrections.

**Table S10. Graph theory metrics for the younger > older adult functional network across affect.**

<i>Region</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>Eigenvector centrality</i>	<i>Betweenness centrality</i>	<i>Local efficiency</i>
R Amygdala	29	0	-25	.000	.108	.667
R Hippocampus	34	-8	-19	.000	.002	.833
R Parahippocampal Gyrus	22	0	-11	.000	.006	.733
R Parahippocampal Gyrus	23	-30	-12	.000	.037	.417
R Inferior Frontal Gyrus	35	6	-13	.000	.168	.350
R Culmen	24	-44	-11	.000	.000	.000
R Parahippocampal Gyrus	20	-30	-7	.000	.000	.000
R Hippocampus	33	-20	-11	.000	.000	.333
R Inferior Frontal Gyrus	30	14	-20	.000	.120	.100
R Parahippocampal Gyrus	33	-33	-13	.000	.000	.417
R Parahippocampal Gyrus	21	-48	-4	.000	.000	.000
L Parahippocampal Gyrus	-23	-31	-8	.000	.037	.000
L Amygdala	-27	-4	-20	.000	.037	.000
L Parahippocampal Gyrus	-20	-23	-9	.000	.000	.000
L Parahippocampal Gyrus	-25	-57	3	.000	.103	.000
L Fusiform Gyrus	-22	-66	-4	.000	.105	.167
L Superior Temporal Gyrus	-37	5	-18	.000	.000	.000
L Hippocampus	-33	-12	-17	.000	.000	.000
L Superior Temporal Gyrus	-46	4	-10	.000	.000	.000
L Posterior Insula	-34	-19	12	.232	.017	.500
L Agranular Retrolimbic Area	-23	-70	6	.000	.000	.000
L Hippocampus	-27	-41	1	.000	.000	.000
L Lingual Gyrus	-12	-57	6	.000	.034	.000
L Thalamus	-27	-24	4	.056	.000	.000
R Mid-Cingulate	7	5	23	.479	.032	.635
L Caudate Body	-16	9	23	.397	.006	.800
L Caudate Body	-16	8	17	.421	.004	.800
L Anterior Mid-Cingulate	-4	15	23	.277	.013	.722
L Mid-Cingulate	-3	-6	28	.264	.000	1.000
L Caudate	-6	8	16	.373	.000	.833
L Caudate	-13	11	9	.253	.000	.833
R Mid-Cingulate	10	8	33	.167	.000	1.000

**Notes.** *x*, *y*, *z* = coordinates in Montreal Neurological Institute (MNI) space; L = left, R = right.



**Table S11. Graph theory metrics for the older > younger adult functional network across affect.**

<i>Region</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>Eigenvector centrality</i>	<i>Betweenness centrality</i>	<i>Local efficiency</i>
R Anterior Cingulate	11	46	-1	.949	.189	.567
R Anterior Cingulate	14	39	9	.217	.000	.000
L Superior Frontal Gyrus	-29	60	5	.169	.000	1.000
L Caudate Body	-13	27	8	.042	.154	.000
R Medial Frontal Gyrus	11	47	7	.315	.189	.167
R Middle Frontal Gyrus	25	43	-2	.996	.000	.767
R Caudate Head	20	29	2	1.000	.162	.536
R Superior Frontal Gyrus	21	44	-14	.792	.079	.600
R Medial Frontal Gyrus	10	38	-6	.869	.277	.567
L Superior Frontal Gyrus	-15	60	9	.137	.000	1.000
L Medial Frontal Gyrus	-4	42	22	.020	.000	.000
L Anterior Cingulate	-7	36	14	.007	.000	.000
R Anterior Insula	33	18	5	.326	.019	.833
L Caudate Body	-3	14	11	.224	.245	.000
R Medial Frontal Gyrus	8	49	18	.124	.079	.333
L Anterior Cingulate	-7	35	-2	.007	.000	.000
R Inferior Frontal Gyrus	40	26	1	.000	.032	.417
R Inferior Frontal Gyrus	38	35	0	.000	.004	.833
R Medial Frontal Gyrus	15	60	-5	.484	.139	.333
R Medial Frontal Gyrus	12	60	12	.314	.133	.700
R Medial/Mid Frontal Gyrus	8	57	20	.136	.000	.000

**Notes.** *x*, *y*, *z* = coordinates in Montreal Neurological Institute (MNI) space; L = left, R = right.