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ABSTRACT

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1. Introduction

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[illegible] (. ., [illegible]) (C a [illegible] a ., 2005; L [illegible] a ., 2015; L [illegible] a ., 2011; Z [illegible] a ., 2016) [illegible] (. ., [illegible]) (A [illegible] -Za [illegible] a ., 2013; C [illegible] a ., 2015; Ma[illegible] ss [illegible] a ., 2015; V [illegible] a [illegible] a ., 2013; Z [illegible] a ., 2013).

T [illegible] fi [illegible] s. H [illegible] s. T [illegible] M [illegible] s. I [illegible] aff [illegible] (W [illegible] a [illegible] s, 1980).

B [illegible] fi [illegible] fl [illegible] (s [illegible] s/ [illegible] s) [illegible] (a [illegible] / [illegible] s) [illegible] (Ma ja [illegible] a ., 2002). E [illegible] s [illegible] a [illegible] M [illegible] (2006) [illegible] — a [illegible] s, [illegible] — [illegible]. T [illegible] fi [illegible]. A [illegible] a- [illegible] s.

A [illegible] ss [illegible] -[illegible] fl [illegible] s.

[illegible] -279.841 a [illegible] 934.34(4a-) s [illegible] s [illegible] -382.441 [illegible] a- TJs-279.841 a[illegible] 42[illegible]

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a Wa , 1999). T WCAT as y s as a a as
a a y (C a a ., 2005; L a ., 2015; L a .,
2011). T a s WCAT, a a
(L a ., 2015). Ta a . (2015) a a a s
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WCAT.

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s - s a s a 7- L s a (1 = s y
sa , 7 = s y a). I as fi y
ff s s 12 s -
s a s a s s 12 s - s a
s. H ff s s a a a
a s (Ma a ., 2014).

2.3. Imaging data acquisition and analysis

B a a s a s a 3.0 T GE S a MR750 s a
(GE H a a ; Wa s a, WI) a s a a a . F a
a s a y s T2- a
a a a (EPI) s s s BOLD as
(64 64 32 a 3.75 3.75 5 ^{3} s a a s ,
= 2000 s, = 30 s, fl a = 90 , fi
= 24 24). A - s T1- s a
a (512 512 180 a a s a a s
.47 .47 1.0 ^{3}, = 8.204 s,
= 3.22 s, fl a = 12) as a a s a s.

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W T s C N a , L , UK). H a
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(a s a ; ; y, a a ; , y a) a
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a . T a a s sa 3 3 3 ^{3}
s, a MNI s a s a a s a a a
a a a s a a y s s a s 8
- a - a (FWHM) Ga ss a .

F ff a a y s s fi s y a y a a
a (GLM) MRI a a. A fi s (S , F ,
C y, F a s) . T s a
a s a a a s a a y s a
- a ff A - a as s
a a y a s s a . R a ss
a y a s - s a , - a a ff a a y s s
as a s s - s y-j (
as : s 1, y − 1) a - s y-j
(as : 1, y − 1). T , s as
a s (S s. C y, F s. C y) as a a s
a ss a a y s s s j s' C a y (s s
WCAT), I (s s s)
a a C a y a I (
s s WCAT a S -C s a S a) as ss s, as
s a :

$$Y = \beta_1 Creativity + \beta_2 Interdependence + \beta_3 Creativity{*}Interdependence + \beta_0$$

T s ss a a y s s a y a s -
a a s' a a y, a -
a a a y s - a -
a ss . B a a a s fi s a s
< .05 (FDR s s < .001).
T , as a s (s s. y a s. y)
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s). T a s -
s a a s a a s s, a ff s -
s a ass a a y a s / s -
y a a y as s s as a
(6 s ff s a s 20 s j s
a 17 s j s).
C a ffi s a y a a a y
s - s. y-j a - s. y-j
a a a s y. F s -
a s a as s a s ff s
s fi a y ff . S a s a s s -
fi a a s a a y
fi a a a y s s a FDR , s -
fi a a ffi s a a as s
y s a a s a s as
a s s.

W a s s y y s a a
a a y s s (PPI) (M La a ., 2012) a s a
s a y s s. T a s
a s as s - s. y-j s a
- s. y-j s -sa t- s s a ss a a -
a s s fi s s PPI a a y s s. T
s as fi as a s 5- - a s a
a a s . T s s a ROI (a a
(MPFC), /y/ = −9/53/1, fi as s - s.
y-j s; MPFC (/y/ = −6/56/−2) a s (/
y/ = −6/−58/43) fi as - s. y-
j s) a a s y y s a a -
ss s a a as a a y
s a a s y a a a s. T s y -
y s a a ss s fl a
s y a a a s (s - s. y-j s - s. -
y-j s) a a a s s s.
T as a s fl ff s s y y s a
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s y s j ss a a y s s a y, -
a (s a ss a
a , Y s a y s s). T s s
ss a a y s s fi

A … fi … (RTs) … 27% … (10 … WCAT … 113) … 27% … (10 … WCAT … 100) … A F …

… (s(37) = .495–.703; … < .005). T …

… (s(37) = .378–.762; … s < .021) …

… (D … Ha …, 1973; Ca … Ta …, 2003). W …

… (Ca … Ta …, 2003).

3. Results

3.1. Behavioral results

W … (RTs) … (ANOVA) … (RTs) … Ta … (F (3, 108) = 111.884, … < .001). T … RTs … F …, S …, F … C … H …, … RTs … (s > .1). T … (94.99%). W … ((37) = .118, … = .488).

3.2. fMRI

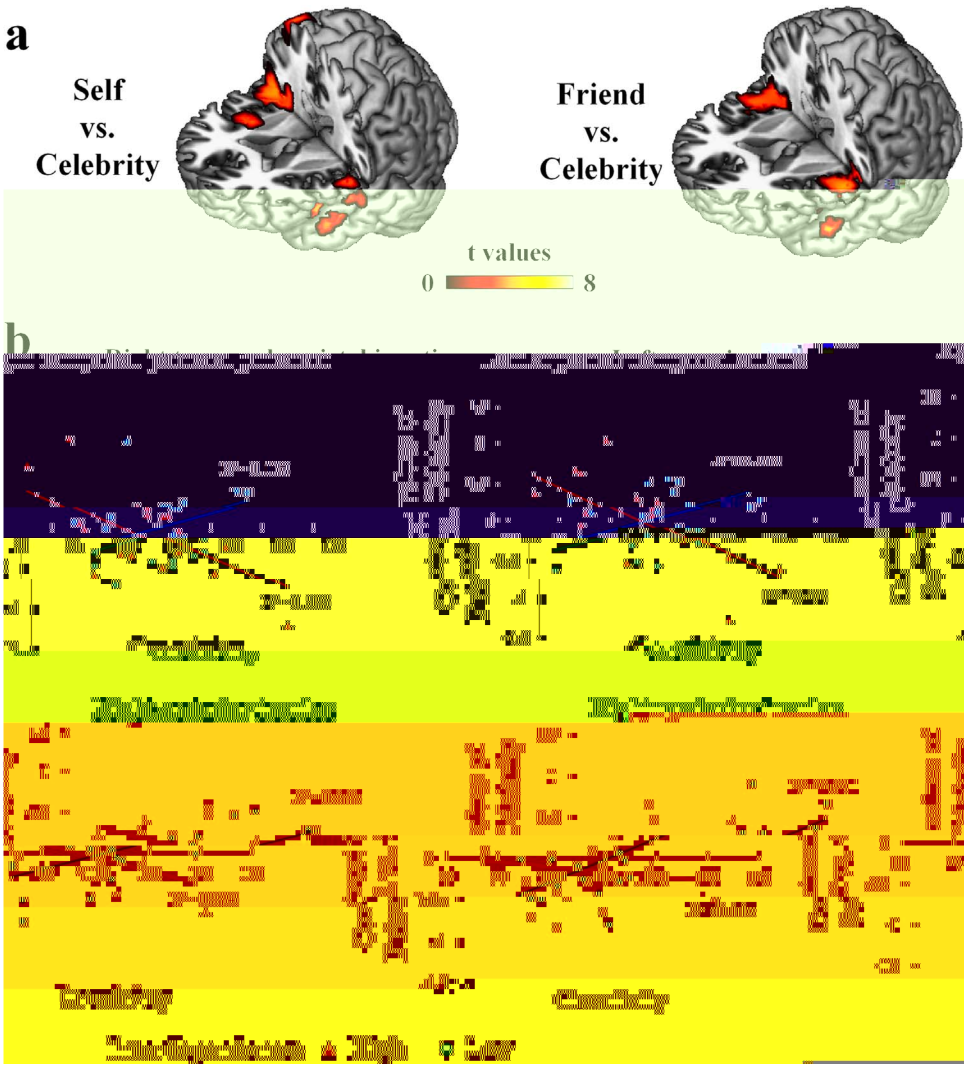

Fig. 2. M a ff s s - s a (. .,) a a y a a a s. (a) B a s s s fi a a s - s a a a a y s - s - y-j a - s y-j ( ) Pa s - s a a a y a a a y ff s. I a s s s j s a s s s j s

s. y as a a a a a ss a a y s s a a a y ss a - a s's s a a y, a a a y . R s s s a as a a s s s s j s s - fi a y a a a y . H , a s s j s (s. y-j s) s a a s s fi a y a a - a a a y, s a s s (STS) (/y/ = −39/−10/−11, = 4.51; = 268), a - a a j (TPJ)/ s s a (PI) (/y/ = 51/ −28/13, = 4.79; = 538), a s a (AI) (/y/ = 33/11/4, = 4.30; = 129) a a y s (/y/ = 36/−25/67, = 3.80; = 148). T a a y STS (/y/ = −51/5/−20, = 4.48; = 362) a PI (/y/ = 39/−22/7, = 4.11; = 395) a a j s as s fi a y a a a y - (F . 2a, Ta 1). W s a a a y s s as a s y- s. j s fi s - fi a s s. T s s s a s - s a s a ass a a a y a a a - s y s - a - a ss . T s a a ff s, s j s

a a s a a as a s (s s. y a s. y) s a s. F . 2 s s a s a s' a a y a a a s a . T ss y a a a s a s, a a a s a a s STS a TPJ s - s. y-j a PI - s. y-j a a a y a s j s 3 s a a a s. As a s F . 2 , - a s s - s a s a a s a a y a a s s s s - -j s (s. y-j s) STS, TPJ a - s a (s = −.136 .610, s = .603-.009), as a s s - s a s s a s a a y a a s s s s - -j (s. y-j) s a a s (s = .464–.635, s = .046-.003). F s - a s a fi s fi a ff s a s a s s j s (s < .01) (Ta 2).

W s s - s a s a ass a a a y a as a y a s a a s - j s (a y-j s). T MPFC (/y/ = −9/53/1) a

as s - s. y-j s a MPFC (/y/ = −6/
56/−2) a , s (/y/ = −6/−58/43) a -
as - s. y-j s s as s s
PPI a ays s. T a y s s
a a s s j a ss a ays s
(a y, , a a as ss s)
y a y a as s s a
a y . T a ays s y fi a
as y MPFC a a a
s a y s (: /y/ = −60/−10/46, = 4.34; = 239;
: : /y/ = 54/−10/55, = 4.35; = 295) -
j s (s. y-j s) s fi a y a
a a y (F . 3, Ta 1). By
a s fi a as a
y as s y a a a y (s = .668
a .787 a s a y s s y, s <
.001) s s s - s a s,
as s a s s s
s - s a s (s = −.0005, −.113, s > .1). T
ff s a s a s s j
s as fi s fis - a s a (s < .01)
(F . 3, Ta 2).

F a y, a s a a ays s s -

Wa . a ., 2012), a . s s . s a . . (Ha . a ., 2016), s s a a s a s s a a . s a s s a sa . C s . W fi ass a s a a a s - a a a y a- y a a a . fl s a a s . H , as , a s - s a ss fi a y a ass a a y a a s y s - a j s. T a ff s s a s s a s a a y a a y a s a . F s a , a a s , s a - s TPJ a a s a a a- y, as s a s s - . T s s s a s s a a s , s a a y fl s a s aff s a y a a ay. By as , s , s a a y fl - s a s ay a a a y. W a s s a s - s a s s fi a y a ass a a a a y a a y MPFC a a s j s. S fi a y, a s , s a y MPFC a s- a s a a y. T s s s a a s - s a s a y a s s a a y a a s s fi a s a s a s s a a y a - a s ff a s.

O fi s s a a s a y (A -Za . a ., 2013; B . a ., 2013; C . a ., 2015; F . a ., 2012; L . a ., 2015; Mays ss . a ., 2015; S a . a ., 2013; Ta . a ., 2012; V a a . a ., 2013; Z . a ., 2013, 2016) y a ass a s a a y a s a a . W y s - s a s a ass - a s a a y a a s - a - a ss ? G a TPJ a s a s s s (Sa a Ka s , 2003) a a - s a s a s -a a ss (C a , 2009), s s a s y ass a , a s - , as a s s a - as s -a a ss ay a y. F s - , as a s s a as s -a a ss ay a a a y. I a , a a y a s s a s s y a y ass a fl a . T s a a s s a ss a s a a s a s - s a s a a s a s s a a a y (Ha , 2006; B . a ., 2010) a s - - s a s a a a s y as ss s (G a a S a , 2006; W s a S a , 2008).

T s s s a a ays s s s a a s a a y a a ass fi y a a - s s a a , , s a s - s a s (. .,). T s s s s. a , a y — a a a y a s a s a a a a — a s y s y a a y a a s. C a y ay a s a s a a a a a a - . I s a a s a ff s C s a s a a y s . O y s. C s a a a s s a a s a s a s s (Z . a ., 2007). T s s a s a s s - s a s a s a a s a s a a y a

s s.

T y S -C s a S a (S s, 1994) a as y s s (. ., a). R s a as s a s - s a s - - s a (fi s , s , a s s, a s , s, a s, a fl ss, V s . a ., 2016). T s s a a as - ff a s a a s s s (s) / s - s a s ay a s a ass a a a y a s a a . T y s a a a s as s s a ass s ff s - s a s (. ., C ss a Ma s , 1997; G . a ., 2006) a s - a y a a (. ., Ba a Ka a , 2008; A a a , 2016). T s s a s - s a s a ass a a a y a s a a a s a as a s. T s ss s s a ss s a .

I s , fi s a a a a a a (. .,) a as s a- a s s a s a s a ass a a s a a y. O fi s s fi s y ss a a a y. G - a ff s s - s a s (Ma s a K aya a, 1991; Oys a . a ., 2002) a a fl s a a a y (Ha a N ff, 2008; Ha . a ., 2013; Ha , 2017), a a s s a s a s a s s a - a a s a s fl a a y.

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T s as s y Na a Na a S F a C a (P j 31470986; 31421003; 31661143039) a E a U a FP7/2007–2013 Ma C I a a R s a S aff E a S REA G a A N. 610350, P j E.N.T.I.C.E.

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