Spring Semester 2018

Wed 9-12, Xianlin I-112

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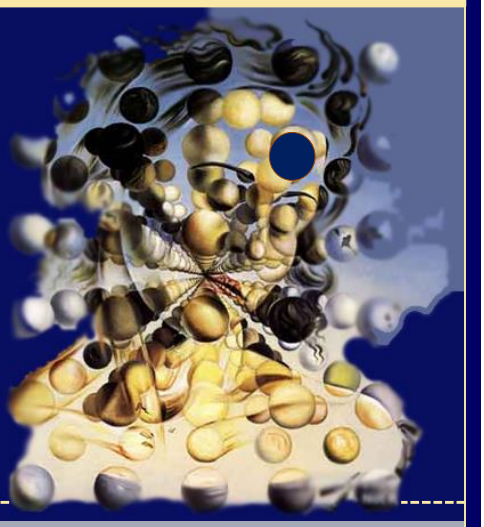
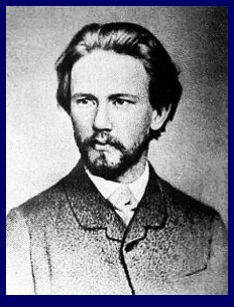


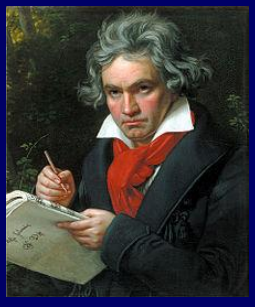
5. Mood disorders

Motivation (1)

"melancholia"



Pjotr Iljitsch Tchaikowsky

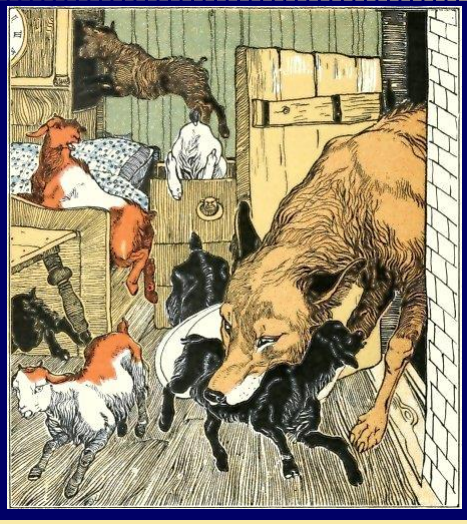


Ludwig van Beethoven

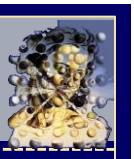
Robert Alexander Schumann

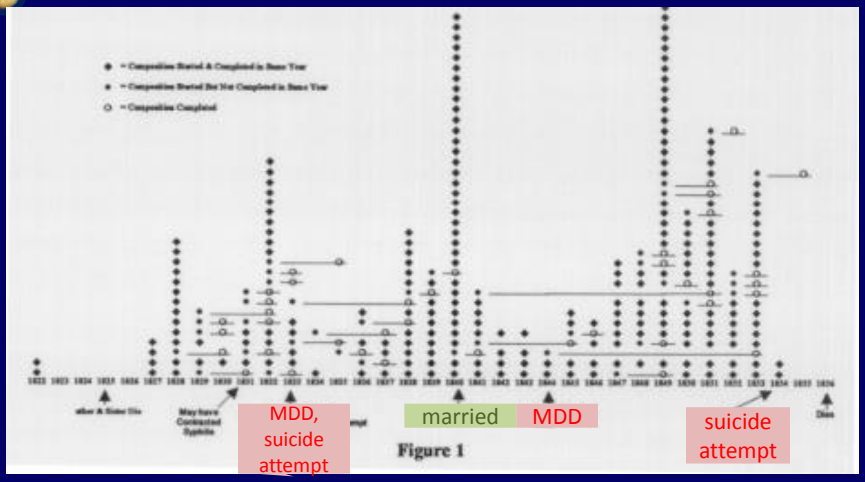
Motivation (2)

Wilhelm Grimm (left)
1786-1859



Robert Schumann's works across lifetime





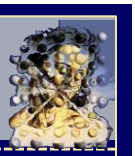
From: Daverio, J. (1997) Robert Schumann: A Herald of a "New Poetic Age." New York: Oxford University Press.

Andreas Lubitz

(1987-2015)

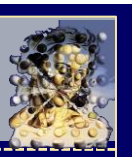
Example: Mary

"Depression"



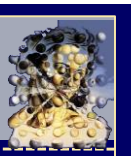
- Mostly used for what is called a "Major Depressive Disorder (MDD)", sometimes also called "unipolar depression".
- Sometimes used for "Major Depressive Episode (MDE)"
- A person diagnosed with MDD had at least one MDE, but not vice versa.
- A MDE is also a constituent of Bipolar I and Bipolar II disorder.
- For MDD, there has never been a reasonably long manic or hypo-manic time in a person's life.

Depressive disorders in DSM-5



- Disruptive mood dysregulation disorder (age 6-18 only)
- Major Depressive Disorder (MDD)
- Persistent depressive disorder (dysthymia)
- Premenstrual dysphoric disorder
- Substance/Medication-induced depressive disorder
- Depressive disorder due to another medical condition
- Other specified/unspecified depressive disorder

Major Depressive Disorder



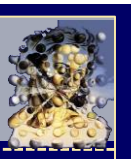
A. Presence of 5 symptoms for at least 2 weeks, one of them depressed mood or loss of interest/
B. Distress/impairment
C. Exclusion of substance/medical condition
D. Exclusion of schizophrenia spectrum disorders
E. Exclusion of prior (hypo-)manic episodes

Specifiers

- Severity: mild, moderate, severe
- Course: chronic, in full/partial remission
- Characteristics:

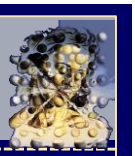
With anxious distress (p. 184)
With mixed features (pp. 184–185)
With melancholic features (p. 185)
With atypical features (pp. 185–186)
With mood-congruent psychotic features (p. 186)
With mood-incongruent psychotic features (p. 186)
With catatonia (p. 186). **Coding note:** Use additional code 293.89
With peripartum onset (pp. 186–187)
With seasonal pattern (recurrent episode only) (pp. 187–188)

Common characteristics of depression



- Depressed mood (sad, empty, hopeless, tearful; in children: irritable)
- Diminished interest or pleasure in all activities
- Weight loss/gain
- Insomnia or hypersomnia
- Psychomotor agitation or retardation
- Fatigue, loss of energy
- Worthlessness, excessive guilt
- Diminished concentration span, indecisiveness
- Thoughts of death, suicidal ideation, or attempted suicide

Depression vs. grief



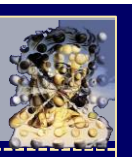
Depression

- Focus: inability to anticipate joy
- More persistent
- Tied to preoccupations (e.g. self-criticism)
- Lack of self-esteem; feelings of worthlessness
- Thoughts about death: feeling of worthlessness or inability to cope with the pain

Grief

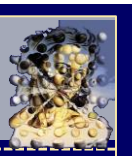
- Focus: loss, emptiness
- Decrease in intensity with pangs of grief
- Preoccupation with deceased
- Accompanied with positive emotions and humor
- Self esteem preserved
- Thoughts about death: "joining the deceased"

Dysthymia



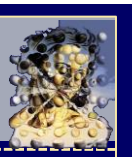
- Milder version of depression
- Depressed mood present most of the day for more days than not at least for 2 years
- At least two of the following symptoms:
  - Poor appetite and overeating
  - Insomnia or hypersomnia
  - Low energy or fatigue
  - Low self-esteem
  - Poor concentration or difficulty making decisions
  - Feelings of hopelessness

Depression - Statistics



- Prevalence
  - Point: 1.5-4.9%
  - Life-time: 4.4-18% (men 12%, women 26%)
  - One-month P. China: 6% (Phillips et al., 2009)
- Course
  - Peak period: age 18-25 years; China: evtl. later!
  - 25% last < 1 month, 50% < 3 months, 75% < 6 months
  - Highly recurrent: 50% with one episode and 80% of those with two episodes will have another one
  - 77% show comorbidity (some articles claim 90-93% comorbidity!)

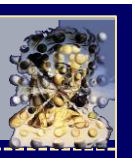
Country	Mood
Americas	
Colombia	6.8 (6.0-7.7)
Mexico	4.8 (4.0-5.6)
United States	9.6 (8.8-10.4)
Europe	
Belgium	6.2 (4.8-7.6)§
France	8.5 (6.4-10.6)§
Germany	3.6 (2.8-4.3)§
Italy	3.8 (3.1-4.5)§
Netherlands	6.9 (4.1-9.7)§
Spain	4.9 (4.0-5.8)§
Ukraine	9.1 (7.3-10.9)§
Middle East and Africa	
Lebanon	6.6 (4.9-8.2)
Nigeria	0.8 (0.5-1.0)
Asia	
Japan	3.1 (2.2-4.1)
People's Republic of China	
Beijing	2.5 (1.5-3.4)
Shanghai	1.7 (0.6-2.9)



WHO study
(2001-2003)
12-month prevalence rates across countries

WHO study (2001-2003)

Beijing & Shanghai



Life-time prevalence

MDD: 3.5%

	Prevalence, % (S.E.)				
		Age (yr)			
	Total	18–34	35–49	50–64	⩾65
Mood disorders					
Major depressive disorder	3·5 (0·4)	4·1 (0·8)	2·9 (0·4)	3·9 (0·7)	2·6 (0·7)
Dysthymia	0·1 (0)	0 (0)	0·2 (0·1)	0·3 (0·2)	0 (0)
Bipolar I–II disorders	0·1 (0)	0·1 (0·1)	0·1 (0·1)	0 (0)	0 (0)
Any mood disorder	3·6 (0·4)	4·2 (0·8)	3·1 (0·4)	4·0 (0·7)	2·7 (0·7)

Twelve-month prevalence and severity of DSM-IV disorders

	Any severity			Serious		Moderate		Mild	
Diagnosis	%	(S.E.)	χ^{2a}	%	(S.E.)	%	(S.E.)	%	(S.E.)
Mood disorder									
Major depressive disorder	2·0	(0·3)	1·0	16·5	(5·4)	51·1	(7·9)	32·4	(7·7)
Dysthymia	0·1	(0·1)	0·0	46·4	(17·7)	53·6	(17·7)	0·0	(0·0)
Bipolar I–II disorders	0·1	(0·1)	0·3	100·0	(0·0)	0·0	(0·0)	0·0	(0·0)
Any mood disorder	2·2	(0·4)	0·7	21·4	(6·7)	48·6	(7·6)	29·9	(7·3)

Odds ratios (OR) (1)

predicting the 12 months prevalence

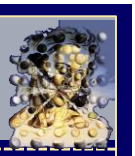
Shanghai and Beijing(Shen et al., 2006)

	Mood	
	OR	(95% CI)
Sex		
Male	1·0	—
Female	0·8	(0·4–1·4)
χ^2	0·8	
Age (yr)		
18–34	2·0	(0·8–4·8)
35–49	0·9	(0·4–1·9)
50–64	—	—
65+	1·0	—
χ^2	3·5	
Income		
Low	1·8	(0·7–4·6)
Low-average	2·8*	(1·1–7·1)
High-average	1·0	(0·4–2·3)
High	1·0	—
χ^2	8·0*	
Marital status		
Married/cohabiting	1·0	—
Separated/widowed/ divorced	2·8*	(1·0–7·6)
Never married	0·4	(0·1–1·2)
χ^2	7·7*	

- Low-average income (vs. high): 2.8
- Separated (vs. married): 2.8

Correlate	OR	*P*-value
Demographics		
Sex	0.89	0.55
Age	1.16	0.27
Grade	0.85	0.37
Only child	0.77	0.16
Left-behind/controls		
Controls	1.00	
Migrant fathers	3.42	< 0.01
Migrant mothers	2.62	< 0.05
Migrant parents	2.73	< 0.01
SES		
Middle	1.00	
Low	2.64	< 0.01
High	1.14	0.54
Social support		
Middle	1.00	
Low	5.86	< 0.01
High	0.50	< 0.05

Odds ratios (OR) (2)



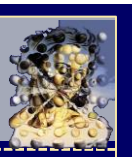
He et al. (2012)

Risk for depression in "left-behind children" in rural China vs. children in a common family situation (controls)

- $n_{(left\text{-}behind)}$ = 590
- $n_{(control)}$ = 285
- Age group: 9-14 years
- Hebei Province

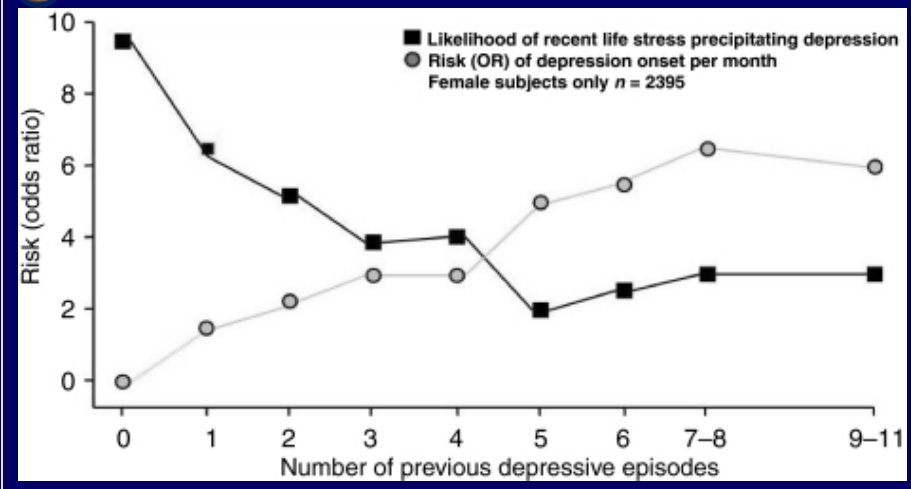
Age-of-onset percentiles for LTP(75)

Beijing and Shanghai (Lee et al., 2007)



	Age at selected age-of-onset percentiles, yr							
	5	10	25	50	75	90	95	99
Anxiety disorders								
Panic disorder	—	—	—	—	—	—	—	—
Specific phobia	5	5	5	13	17	36	41	59
Generalized anxiety disorder	18	23	34	44	54	57	58	61
Post-traumatic stress disorder	—	—	—	—	—	—	—	—
Separation anxiety disorder	—	—	—	—	—	—	—	—
Any anxiety disorder[a]	5	5	10	17	36	55	57	60
MDD	18	21	28	43	54	67	68	68
Bipolar I–II disorders	—	—	—	—	—	—	—	—
Any mood disorder	18	21	28	43	53	67	68	68

Recurrence of depressive episodes
(Maletic et al., 2007)



Beck's Cognitive Model of Depression

Beck, 1974

Dysfunctional beliefs
Rigid schemata
Negative cognitive styles

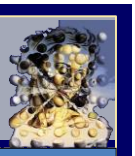
Events
External and internal triggers

Automatic thoughts
Absolutistic
Over-generalizing
Personalizing
Illogic
Biased
Arbitrarily inferring
Selectively abstracting

Depression
- Emotional
- Somatic
- Motoric
- Motivational

symptoms

Hautzinger's Integrative Model



Context, environment

(social, material, etc.)

Situation triggers

Person's cognitions
unrealistic, biased, negative structures, biased self-evaluation

Person's social behavior
behavior deficits, lack of coping strategies

Possible level of activation
lack of pos/neg reinforcers and potentially rewarding events and activities

Depression

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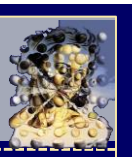
Homework



Apply Hautzinger's model to the case example. Follow the following questions:

1.) What is the situational context of Mrs. S.?

2.) What are events with negative consequences ("punishment") for Mrs. S.?

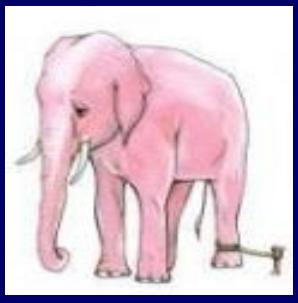
3.) What events could be potential positive/negative reinforcers in Mrs. S.'s life that are missing now?

4.) What beliefs might be unrealistic and biased?

5.) What do we know about Mrs. S.'s social behavior?

Further etiological explanations (1)

- *Aversive events/stressors*
- *Socio-cultural factors*
  - Low SES
  - Lack of social support system (recursive)
- *Personality factors*
  - Perfectionism
  - Neuroticism
  - Interpersonal dependence
- *Psychological explanations*
  - Learned helplessness
  - Attribution style (Weiner, 1986)
    - internal (vs. external) – locus of control
    - stable (vs. unstable) – across time periods
    - global (vs. specific) – across contexts/situations



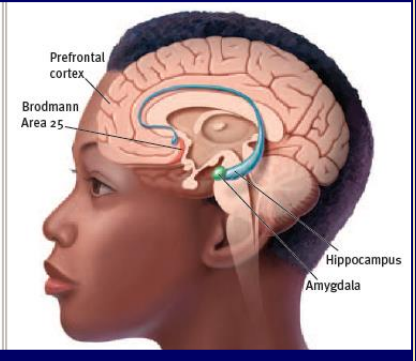
Further etiological explanations (2)

- *Biological factors*
  - Imbalance of multiple transmitters (serotonin, norepinephrine, dopamine, acetylcholine), serotonin as a neuromodulator
  - Hormone imbalance (↑ cortisol, ↑ melatonin)
  - Brain peculiarities: prefrontal cortex, Brodman area 25 (↑ activity or smaller size; „depression switch“?) – It‘s a network issue!
  - Dysregulated immune system
- *Psychodynamic explanations*
  - Loss ⇒ Regression to the oral stage (defence against grief)
  - Too much or too little gratification during childhood
- *Realism-thesis (refuted)*
  Depressed people are more realistic people than others.
- *Scar-theories for recurrences*
  A depressive episode leaves scars which makes people more sensitive to have depression again.

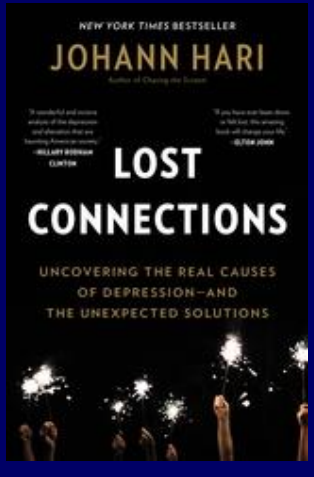
Biological findings

Comer, 2015, p. 225

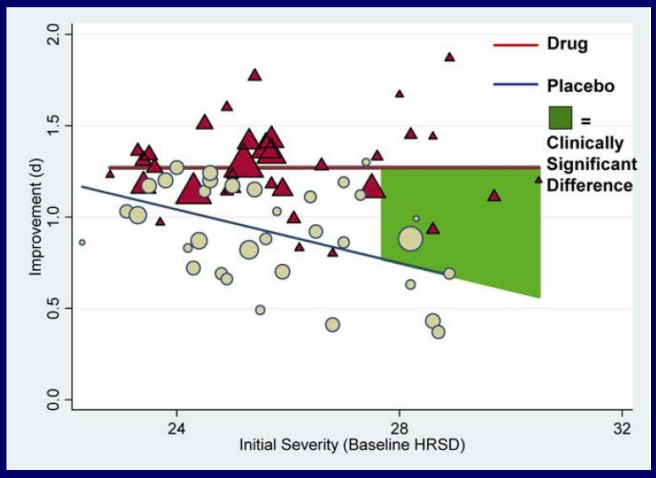
The *prefrontal cortex* is located within the frontal cortex of the brain. Because it receives information from a number of other brain areas, the prefrontal cortex is involved in many important functions, including mood, attention, and immune functioning. Several imaging studies have found lower activity and blood flow in the prefrontal cortex of depressed research participants than in the prefrontal cortex of nondepressed people (Vialou et al., 2014). However, other studies, focusing on select areas of the prefrontal cortex, have found increases in activity during depression (Lemogne et al., 2010; Drevets, 2001, 2000). Correspondingly, research finds that the prefrontal cortex activity of depressed individuals increases after successful treatment by some antidepressant drugs, but decreases after successful treatment by other kinds of antidepressant drugs (Cook & Leuchter, 2001). Given these varied findings, researchers currently believe that the prefrontal cortex plays a critical role in depression but that the specific nature of this role has yet to be clearly defined (Treadway & Pizzagalli, 2014; Goldstein et al., 2011).



Johann Hari



Dysfunction of the brain?
Placebo effect of antidepressants



Kirsch et al. (2008) doi:10.1371/journal.pmed.0050045.sd001

Disconnection from meaningful work

- Whitehall study (Marmot et al. 1991; 10.1016/0140-6736(91)93068-K)
  The lower the social status the higher the mortality among civil servants.
  https://unhealthywork.org/classic-studies/the-whitehall-study/
  Key factor: lack of balance between efforts and reward

Disconnection from people

John Caccioppo (1951-2018)
"Social neuroscience"

Loneliness is contagious, heritable, precedes depression, affects one in four people – and increases the chances of early death by 20%.
Social media cannot compensate us psychologically for what we have lost—social life.

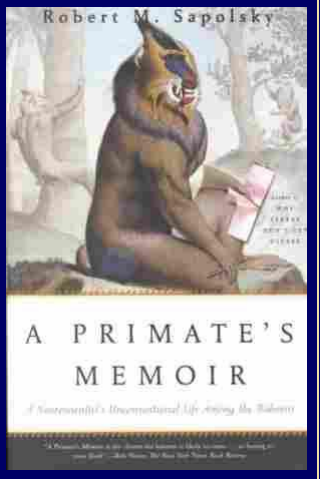
Disconnection from meaningful values

Disconnection from childhood trauma

- Chapman et al. (2004) 10.1016/j.jad.2003.12.013

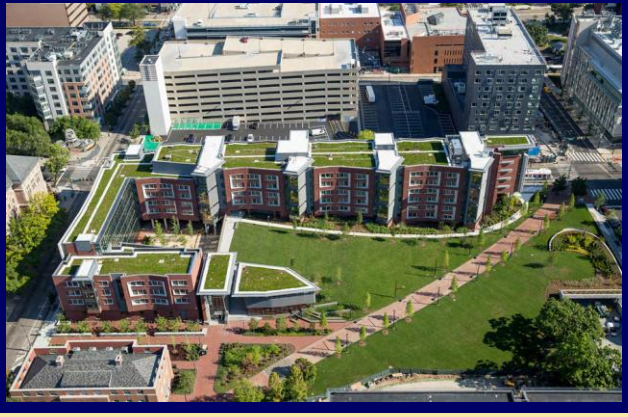
"If you had six categories of traumatic events in your childhood, you were five times more likely to become depressed as an adult than somebody who didn't have any. If you had seven categories of traumatic event as a child, you were 3100 percent more likely to attempt to commit suicide as an adult." (Hari, 2018, p. 114)

Disconnection from status and respect



Disconnection from the natural world

- Alcock et al. (2013), doi:10.1021/es403688w
- http://www.jayhanson.us/_Biology/BiophiliaBeyondToxicity.pdf

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Disconnection from a hopeful and secure future

The Town with No Poverty: The Health Effects of a Canadian Guaranteed Annual Income Field Experiment (1974-1979)

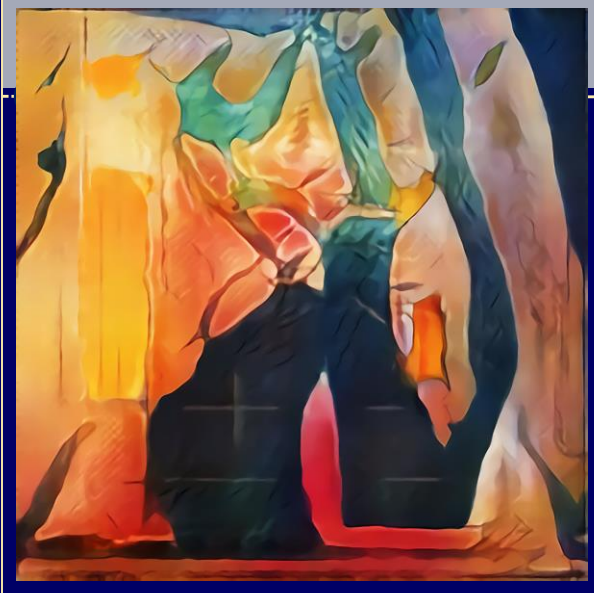
http://sociology.uwo.ca/cluster/en/documents/Research%20Briefs/PolicyBrief10.pdf

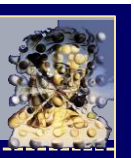
"Considerable decrease in hospitalization and physician contact for mental health diagnoses, as well as a decrease in hospitalization for accidents and injuries."

Remedies

- Reconnection with other people (real)
- Meaningful work
- Meaningful values (i.e., less materialism)
  Kasser et al., 2013, doi:10.1007/s11031-013-9371-4
- Overcoming childhood trauma
- Restoring the future

Et al.





What makes us human?