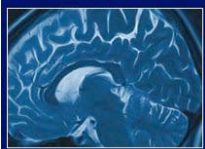


A Whole Life



A Mindful Approach to Sustainable Well-being

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Madison Psychiatric Associates

sustainable**wellbeing**.org



Integrative Medicine

- Combine (one thing) with another to form a whole
- from Latin *integrat*- 'made whole' 
- Compare with *integrity*: the state of being whole and undivided



cai guo-qiang on the roof, transparent monument
the metropolitan museum of art, new york, usa, 2006

“One does not become
enlightened
by imagining figures of light
but by making the darkness
conscious.

This procedure, however,
is disagreeable and
therefore not very popular.”

– Carl Jung “The Philosophical Tree” (1945).
In CW 13: Alchemical Studies, p. 335

What are we integrating?

A Whole Life



To what end?



A Mindful Approach to
Sustainable Well-being

What are we integrating?

Mind, Body, Spirit
Self, Community, Planet
7 generations



To what end?

Sustainable Well-being

How?

Lifestyle Change
Mindfulness



What are we integrating?

Mind, Body, Spirit

A Whole Life

Self, Community, Planet

7 generations



To what end?

Sustainable Well-being

A Mindful Approach
Sustainable We

Lifestyle Change

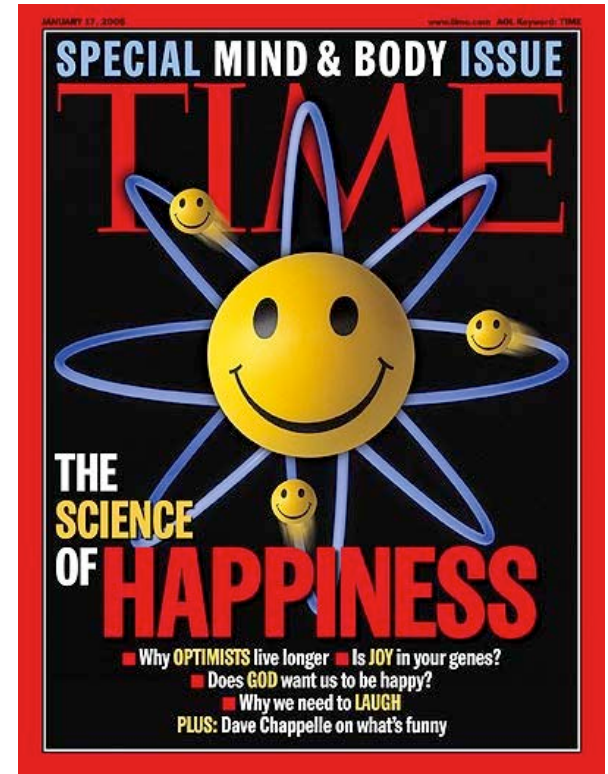
Mindfulness



A Declaration by the Representatives of the UNITED STATES OF AMERICA, in General Congress assembled.

When in the course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the laws of nature and of nature's god entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to separate.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed; that whenever any Form of Government becomes destructive of these ends, it is the right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing it in such form, as to them shall seem most likely to effect their safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, begun at a distant period, and pursuing invariably the same object, evinces a design to reduce us to absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security. Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct or indirect object the establishment of an absolute Tyranny over these States. To prove this, let facts be submitted to a candid world, for the truth of which we pledge a faith not swayed by falsehood.



“Salud, amor, y pesetas, y tiempo para gosarlos”

It goes 7.4 miles!



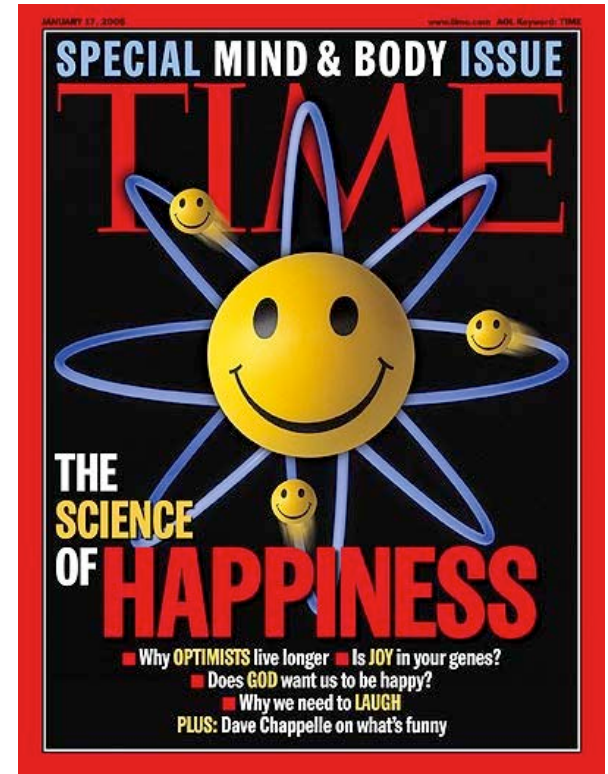
Denominator

- per hour?
- til it dies?
- per gallon?

A Declaration by the Representatives of the UNITED STATES OF AMERICA, in General Congress assembled.

When in the course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the laws of nature and of nature's god entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to separate.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed; that whenever any Form of Government becomes destructive of these ends, it is the right of the People to alter or to abolish it, & to institute new Government, laying its foundation on such principles & organizing it in such form, as to them shall seem most likely to effect their safety & happiness. Prudence indeed will dictate that Governments long established should not be changed for light & transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses & usurpations, begun at a distinguished period, pursuing invariably the same object, evinces a design to reduce them to absolute Tyranny, it is their right, it is their duty, to throw off such Government, & to provide new Guards for their future security. Such has been the patient sufferance of these Colonies; & such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct or indirect object the establishment of an absolute Tyranny over these States. To prove this, let facts be submitted to a candid world, for the truth of which we pledge a faith not equalled by falsehood.



Denominator?

Sustainable Well-Being

Well-being

Resources to get WB

Sustainable Well-Being

(Mental & Physical Health) * Longevity

Ecological Footprint




Ecological Footprint:
How much of the Earth's resources
does your lifestyle require?

Life Sat	Life Exp	EF	HPI	Rank
7.4	77.4	9.5	28.8	150

How are we doing?

	Life Sat	Life Exp	EF	HPI	Rank
Vanuata	7.4	68.6	1.1	68.2	1
Costa Rica	7.5	78.2	2.1	66	3
Cuba	6.3	77.3	1.4	61.9	6
Switzerland	8.2	80.5	5.3	48.3	65
UK	7.1	78.4	5.4	40.3	108
Sweden	7.7	80.2	7	38.2	119
France	6.6	79.5	5.8	36.4	129
Lithuania	4.7	72.3	3.9	29.3	149
USA	7.4	77.4	9.5	28.8	150
UAE	7.4	78	9.9	28.2	154
Ukraine	3.6	66.1	3.3	22.2	174
Zimbabwe	3.3	36.9	1	16.6	178



Life Sat	Life Exp	EF	HPI	Rank
7.4	77.4	9.5	28.8	150

Well-being: Physical Health

24th in world for disability adjusted life expectancy

"Basically, you die earlier and spend more time disabled if you're an American rather than a member of most other advanced countries"

Life Sat	Life Exp	EF	HPI	Rank
7.4	77.4	9.5	28.8	150

Q: Why?

- Some groups (e.g., Native Americans, inner city poor) have extremely poor health, more characteristic of a poor developing country rather than a rich industrialized one
- HIV kills or disables more in U.S. than in most other advanced countries
- U.S. a leader for cancers relating to tobacco
- A high coronary heart disease rate
- High levels of violence, especially of homicides, when compared to other industrial countries (Crime is up 300% from 1950-1980 & still above 1950 levels; Layard, 2005)

A: Social Justice & Lifestyle



Well-being: Mental Health

Life Sat	Life Exp	EF	HPI	Rank
7.4	77.4	9.5	28.8	150

Table 2. Twelve-Month Prevalence of World Mental Health Composite International Diagnostic Interview/Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*

Country	% (95% Confidence Interval)				
	Anxiety	Mood	Impulse-Control	Substance	Any
Americas					
Colombia	10.0 (8.4-11.7)	6.8 (6.0-7.7)	3.9 (3.2-4.7)	2.8 (2.0-3.7)	17.8 (16.1-19.5)
Mexico	6.8 (5.6-7.9)†	4.8 (4.0-5.8)	1.3 (0.9-1.8)‡	2.5 (1.8-3.3)	12.2 (10.5-13.8)‡
United States	18.2 (16.9-19.5)	9.6 (8.8-10.4)	6.8 (5.9-7.8)	3.8 (3.2-4.5)	28.4 (24.7-28.0)
Europe					
Belgium	6.9 (4.5-9.4)	6.2 (4.8-7.8)§	1.0 (0.3-1.8)‡	1.2 (0.6-1.9)‡‡	12.0 (9.6-14.3)
France	12.0 (9.8-14.2)	8.5 (6.4-10.6)§	1.4 (0.7-2.0)‡	0.7 (0.3-1.2)‡‡	18.4 (15.3-21.5)
Germany	6.2 (4.7-7.6)	3.6 (2.8-4.3)§	0.3 (0.1-0.8)‡	1.1 (0.4-1.7)‡‡	9.1 (7.3-10.8)
Italy	5.8 (4.5-7.1)	3.8 (3.1-4.5)§	0.3 (0.1-0.5)‡	0.1 (0.0-0.2)‡‡	8.2 (6.7-9.7)
Netherlands	8.8 (6.6-11.0)	6.9 (4.1-9.7)§	1.3 (0.4-2.2)‡	3.0 (0.7-5.2)‡‡	14.9 (12.2-17.6)
Spain	5.9 (4.5-7.3)	4.9 (4.0-5.8)§	0.5 (0.2-0.8)‡	0.3 (0.0-0.5)‡‡	9.2 (7.8-10.6)
Ukraine	7.1 (5.6-8.6)†‡	9.1 (7.3-10.9)§	3.2 (2.4-4.0)†‡‡**	6.4 (4.8-8.1)‡‡	20.5 (17.7-23.2)
Middle East and Africa					
Lebanon	11.2 (8.9-13.5)	6.6 (4.9-8.2)	1.7 (0.8-2.8)††**	1.3 (0.0-2.8)	16.9 (13.6-20.2)
Nigeria	3.3 (2.4-4.2)	0.8 (0.5-1.0)	0.0 (0.0-0.1)††‡**	0.8 (0.3-1.2)	4.7 (3.6-5.8)
Asia					
Japan	5.3 (3.5-7.0)†	3.1 (2.2-4.1)	1.0 (0.4-1.5)††‡‡**††	1.7 (0.3-3.0)	8.8 (6.4-11.2)
People's Republic of China					
Beijing	3.2 (1.8-4.6)†				
Shanghai	2.4 (0.9-3.9)†				

Source: WHO World Mental Health Survey Consortium (2004), JAMA

Q: Why?

1. Glorification of the individual [1]
 2. Degradation of the commons [1]
 - Decreased civic involvement (esp. U.S.), 1/2 of which attributed to urban sprawl, T.V. viewing, & time limitations [2, p. 18]
 - Time poverty [3]
- | | | | | |
|----------|----------|-----|------|------|
| Life Sat | Life Exp | EF | HPI | Rank |
| 7.4 | 77.4 | 9.5 | 28.8 | 150 |
- U.S. works more than any other industrialized country
 - We work nearly 9 full weeks (350 hours) longer per year than our peers in Western Europe

A: Lifestyle

Life Sat	Life Exp	EF	HPI	Rank
7.4	77.4	9.5	28.8	150

Time Poverty

- **Self - Threatens our health**
 - Leads to fatigue, accidents and injuries
 - Reduces time for exercise
 - Encourages consumption of calorie-laden fast foods
 - Job stress and burnout costs the U.S. economy >\$300 b/yr
- **Community weakened**
 - **Threatens marriages, families & relationships** as we find less time for each other, less time to care for our children and elders, less time to hang out
 - Less time for voting or more involved citizenship
 - Less time to know neighbors, supervise children, & volunteer
- **Planet - Contributes to destruction of our environment:** Lack of time encourages use of convenience and throwaway items and reduces recycling

Sustainable Well-Being

Well-being

Resources to get WB



Resources Used

Life Sat	Life Exp	EF	HPI	Rank
7.4	77.4	9.5	28.8	150

- U.S. uses 6.8 planets worth of resources
- We use more energy/person than any other country (except UAE)
- U.S. & allies outspend all non-allies militarily
- “Providing adequate food, clean water, and basic education for the world’s poorest could all be achieved for less than people spend annually on...

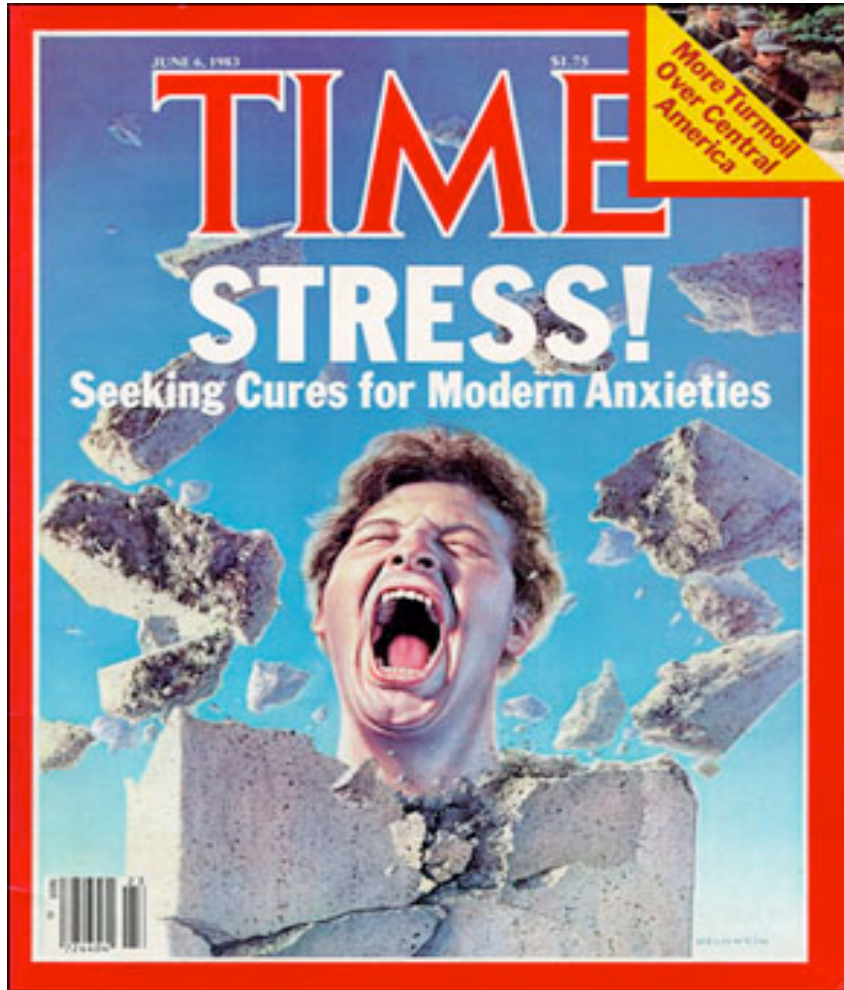
makeup, ice cream, and pet food” (p.10, State of the World, 2004)



Sustainable Well-Being

(Mental & Physical Health) * Longevity

Ecological Footprint



Work more, achieve less, &
destroy the planet in the bargain

DSM-IV
Diagnosis

Wacked out the booty

What are we integrating?

Mind, Body, Spirit

A Whole Life

Self, Community, Planet

7 generations



To what end?

Sustainable Well-being = $\frac{\text{Well-being}}{\text{EF}}$

A Mindful Approach Sustainable Well-being

Lifestyle Change
Mindfulness





Mindfulness

- Paying attention, on purpose, non-judgmentally
- Being aware of sensations, thoughts, emotions occurring right now without judgment



Mindfulness effective for...

- **Anxiety, depression, stress, burnout** (e.g., Cohen-Katz, Wiley, et al., 2005; Ma & Teasdale, 2004; Teasdale, Segal, Williams, et al., 2000)
- **Chronic pain** (Kabat-Zinn, 1982; Kabat-Zinn, Lipworth, & Burney, 1985)
- **Substance abuse** (Bowen, Witkiewitz, Dillworth, et al., 2006)
- **Arthritis** (Pradhan et al., 2007)
- **Diabetes** (Gregg, Callaghan, et al., 2007)
- **Fibromyalgia** (Sephton et al., 2007; Grossman, et al., 2007)
- **Psoriasis** (Kabat-Zinn et al., 1998)



Mindfulness effective for...

- Positive resting frontal alpha-asymmetry (Davidson, et al., 2003; Barnhofer et al., 2007)
- **Immune Function** (Davidson, Kabat-Zinn et al, 2003)



...and different types of people

- **Cancer patients** (Specia, Carlson, et al., 2000; Monti, Peterson, et al., 2005; Carlson, Specia, et al., 2007)
- **Health care professionals** (Shapiro, et al, 2005)
 - **Medical Students** (Shapiro, et al., 1998)
 - **Nurses** (Cohen-Katz, Wiley, et al ., 2005)
- **Women with heart disease** (Tacon, McComb, Caldera, Randolph, 2003)
- **Prisoners** (Bowen, Witkiewitz, Dillworth, et al., 2006)
- **Borderline Personality Disorder** (DBT, Linehan, 1993)





- Al: “I feel like I want to be healthier.”
- Dr.: “Maybe you should quit smoking”
- Al: “Really, Doctor, how would that help?”
- Dr.: “Well, smoking is slowly killing you”
- Al: “Wow! I didn’t realize that. I’ll quit straight-away!”



- Al: “I feel like I want to be healthier.”
- Dr.: “Maybe you should quit smoking”
- Al: “Really, Doctor, maybe I should stick these cigarettes up your &%^\$!”
- Dr.: “Maybe you should leave the office”
- Al: “Yeah, that’s obviously the only way to find a competent Doctor.”
- Suppose Al has BPD

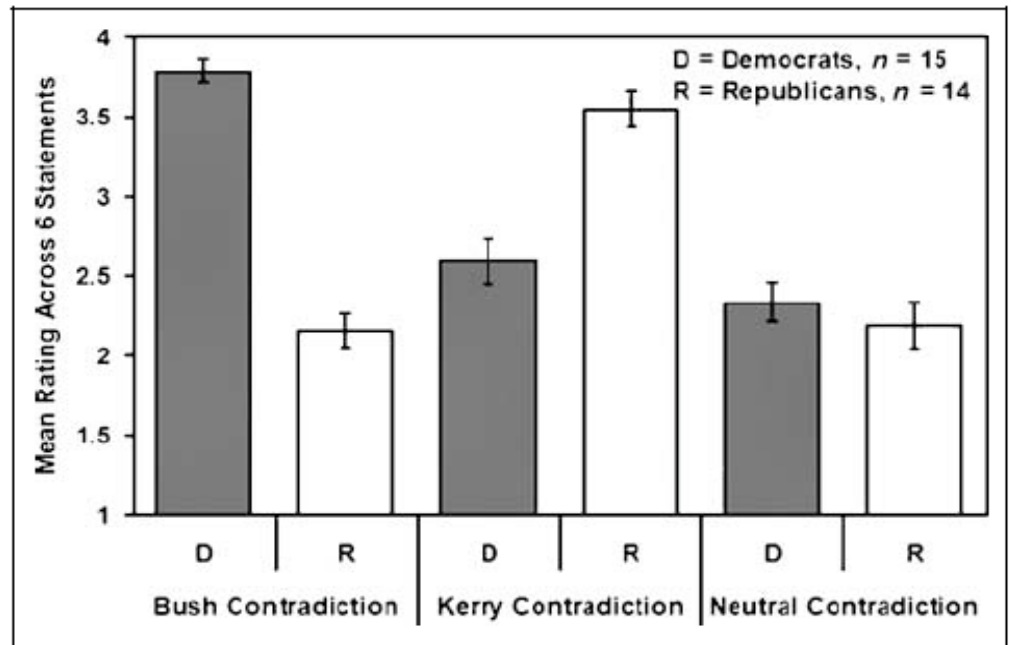
Smoking Cessation Pilot

- 8-week MBSR
- Treatment
 - (1) This is not about quitting
 - (2) Be aware of thoughts, emotions, sensations
 - (3) Bring this awareness to smoking
- Results
 - 56% stayed quit at 6 weeks vs. 11-30% rates in other therapies (Fiore, Bailey, & Cohen, 2000)



Bounded rationality vs. Motivated reasoning

- All decisions are emotional
- Democrats & Republicans read statements about Bush, Kerry, or Tom Hanks (for ex)
- Consistently identified contradictions in “other” candidate but not own



- Negative emotion registered when contradiction was introduced
- With time to reach biased conclusion, negative affect gone
- “brain converges on solutions that minimize negative and maximize positive affect states” (Westin, et al., 2006, Jo of Cog Neuro, p. 1947)



Mechanisms of Change?

- Attention is needed even for awareness of amygdala-mediated stimuli (Pessoa, Padmala, & Morland, 2005, NeuroImage)
- Increased control of habitual responding (Wenk-Sormaz, 2005)
- Better reality sampling (Slagter, Lutz, Greischar, et al. (2007; PLOS Biology)
- Meta-cognitive awareness (Teasdale, et al. 2002)
 - CT & MBST --> increased meta-cog awareness --> decreased depression
 - MBCT reduces overgeneral memory bias (Williams, Teasdale, Segal, & Soulsby, 2000)



Mindfulness

- Being aware is the act of integrating, remembering all parts of ourselves
- welcoming them into awareness without judgment





Integrating parts of ourselves

- Authenticity associated with less depression & anxiety, lower stress, greater subjective vitality, & lower physical Sxs (Ryan, LaGuardia, & Rawsthorne, 2005)
- More distinct one is across different roles, less well-being (Sheldon, Ryan, et al. JPSP, 1997)

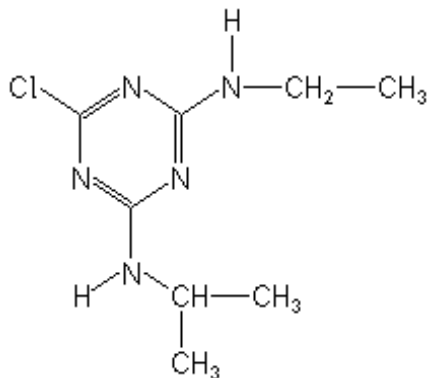


Diseases of dis-integration

- Repression
 - Report low anxiety but exhibit anxious physiology (Weinberger, et al., 1973, JAP)
- Defensive Deniers
 - higher (and medically significant) cardiovascular reactivity associated with higher distress relative to genuinely healthy individuals (Shedler, Mayman, et al., 1993)

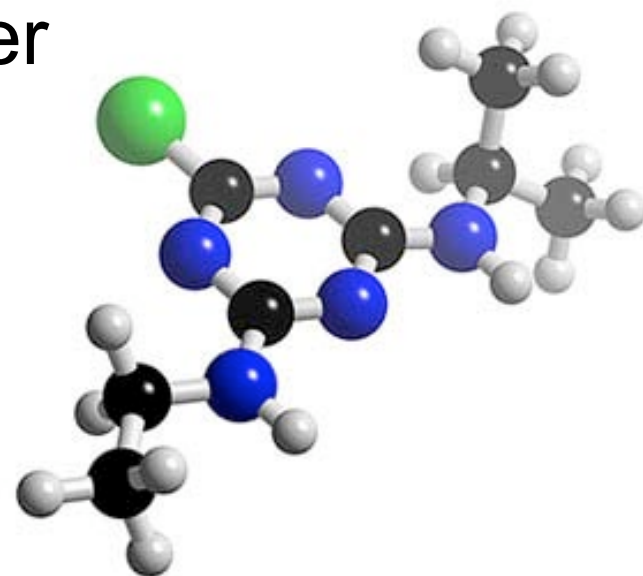


Beyond Self



How else do we get a company that...

- (1) produces atrazine, a cause of breast cancer
- (2) a treatment for breast cancer



We are not separate from our context

- Depleting fishery (resource dilemma task)
- 10/30 words on sentence completion task
either cooperation or neutral words
- Those primed subliminally for cooperation
= those with conscious cooperation goal >
neutral words for fish returned to common
resource



Stanford Prison Experiment

- Participants randomly assigned to “prisoner” or “guard” roles in mock prison setting
- Study prematurely terminated “when it became apparent that many of the ‘prisoners’ were in serious distress and many of the ‘guards’ were behaving in ways which brutalized and degraded their fellow subjects”
- “Volunteer prisoners suffered physical and psychological abuse...while volunteer guards were exposed to the new self-knowledge that they enjoyed being powerful and had abused this power to make human beings suffer.”

- 600 MBSR participants -- 7% of effect on mental health Sxs due to group (Imel, Baldwin, Bonus, & MacCoon, 2008)
- Ecologically responsible behaviors (ERBs)
 - Subjective well-being positively associated with ERBs
 - ...because they have intrinsic values
 - ...and are mindful of their inner experience & behavior
 - Brown & Kasser (2005)

Listening to our patients IS
listening to ourselves

Showing up for ourselves is
the only way to show up for our
patients



True neurally. Mirror Neuron System

- Observing an action = Doing that action
- Experiencing disgust & observing someone's disgust both activate anterior insula (Wicker, Keysers, et al., 2003, Neuron)
- Empathy: to put oneself in the place of others

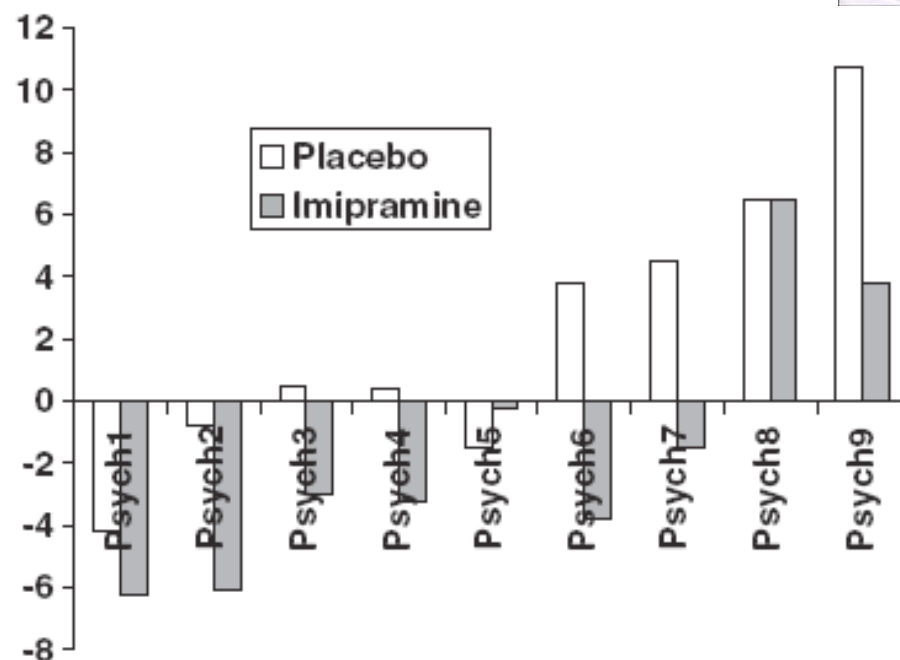
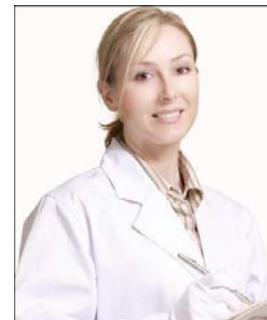


Empathy, Compassion, & Fairness

- Empathy: High functioning autistic individuals have less activation in MNS areas than controls when imitating emotional facial expressions (Depretto, et al, 2006, Nat Neurosci)
- Compassion: AC & Anterior insula activate when partner feeling pain (Singer, et al., 2004, Science)
- Fairness: AC & Anterior insula activated when neuroeconomic games are played fairly or not (Singer, et al., 2006, Nature)




Your Choice: Pills or Person



- Variance in BDI due to medication = 3.4% vs. 9.1% d/t psychiatrist
- HAM-D = 5.9% & 6.7%




An aerial photograph showing a diverse landscape. In the top left, there's a large, open field with some trees. To its right is a rectangular field, possibly a farm. Below the top left field is a wooded area. In the bottom left, there's a large area divided into many small plots, likely a community garden. On the right side, there's a residential development with several houses and a parking lot. The text labels are overlaid on the image in white boxes with black borders.

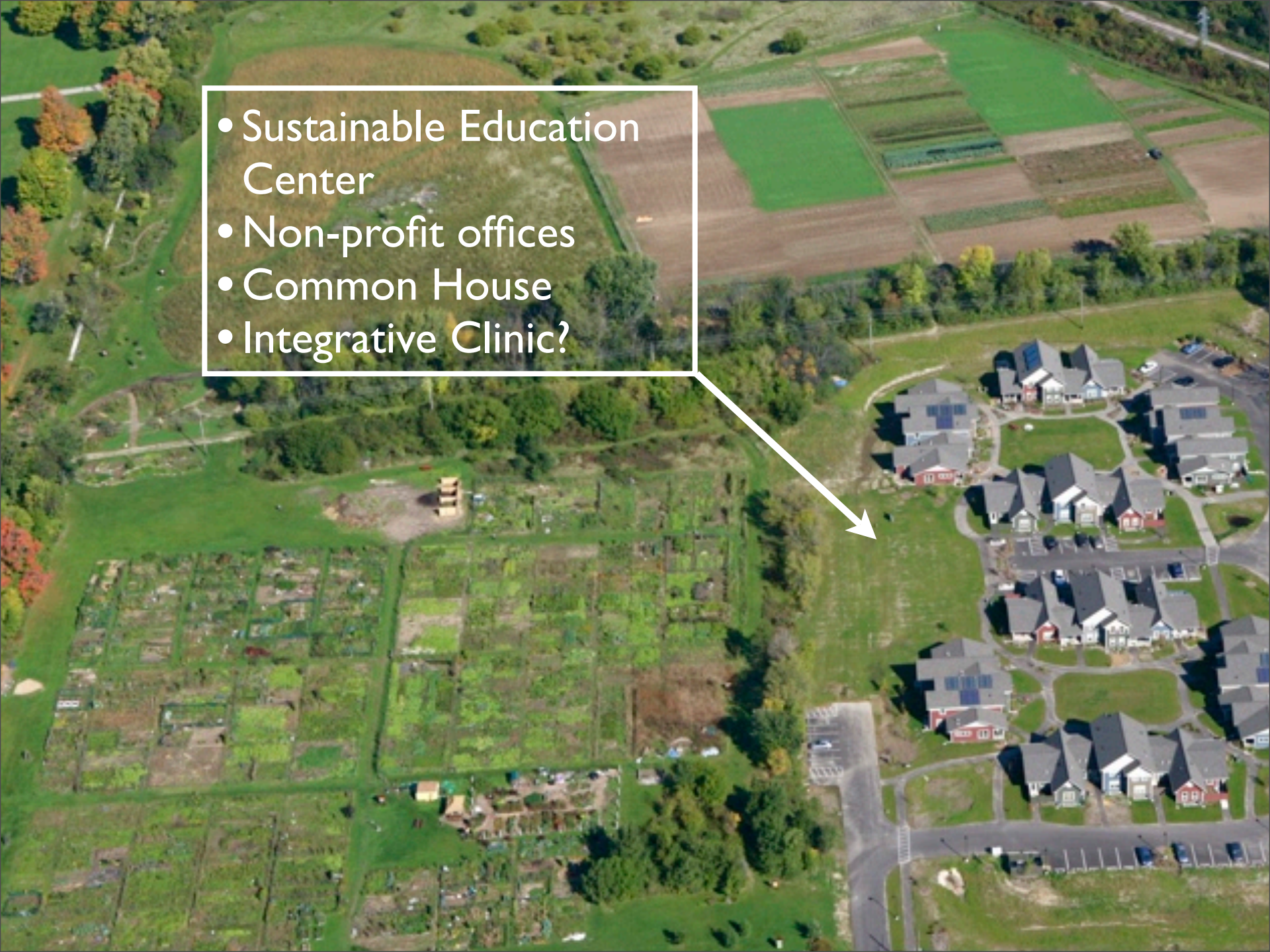
5-acre prairie
restoration

5-acre organic CSA farm

Community Gardens
5 acres (320 plots)

Troy Co-housing
30 units, mixed income

- 
- An aerial photograph of a residential development featuring several two-story houses with grey roofs and solar panels. The houses are arranged in a circular pattern around a central green area. There are parking lots and a road visible. A white box with a black border is overlaid on the left side of the image, containing a list of features.
- Interpretive trail
 - Restored woodland
 - Hmong herb garden
 - Edible landscaping

- 
- Sustainable Education Center
 - Non-profit offices
 - Common House
 - Integrative Clinic?

Troy Co-housing

- Lifespan design
- Universal design
- Green space
- Promote community
- Green built & energy star
- Low operating costs
- Affordable: 20 (of 30) units permanently at affordable housing rates
- 2007 Livable Community Award from AARP & NAHB











GROWING TOGETHER



"In summer, me and
my friend Lonzo
planted some bright
orange carrots.
I hope there is always
a garden for all the
Vera Court kids."

Tesha Lynn Bell

troy gardens



Vision

Troy Gardens is a welcoming cohousing community where we cultivate sustainability and meaningful connections with one another and the land through celebration, cooperation, and open communication.



- 
- An aerial photograph of a suburban neighborhood. The houses are arranged in a grid-like pattern with winding streets. Many houses have solar panels installed on their roofs. The lawns are green, and there are some trees. A parking lot is visible in the bottom left corner. A white box with a black border is overlaid on the left side of the image, containing a bulleted list.
- Children
 - Social
 - Digesting information


Ecovillage at Ithaca, NY



Song (30 houses)

Frog Common House

Frog (30 houses)

- 
- 800, 1000, 1200, 1500 sq ft
 - Resources = ~14 acres/person (EF 1.0)
 - 25 acres = avg (EF 1.0; 56% of avg American)

Sharing...

- Meals
- Childcare
- Cars?
- Financing to increase renewables?
- Homes to increase density?
- Largest obstacles?
 - Intending to change
 - Getting along

Mindfulness

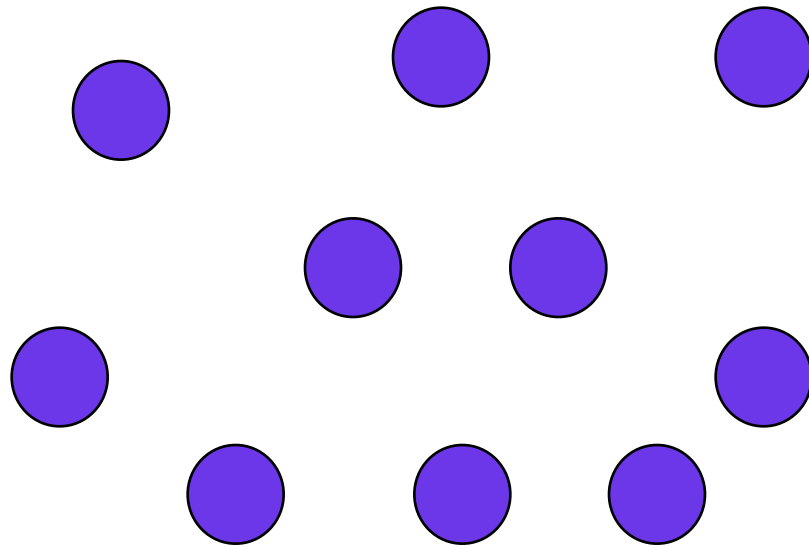


- Tool for awareness of...
 - Self: our own parts
 - Community: how we effect others and how others effect us
 - Planet: How our lifestyle effects the planet & how the planet effects our lifestyle
- Emotion regulation (important for change)
- Skillful communication

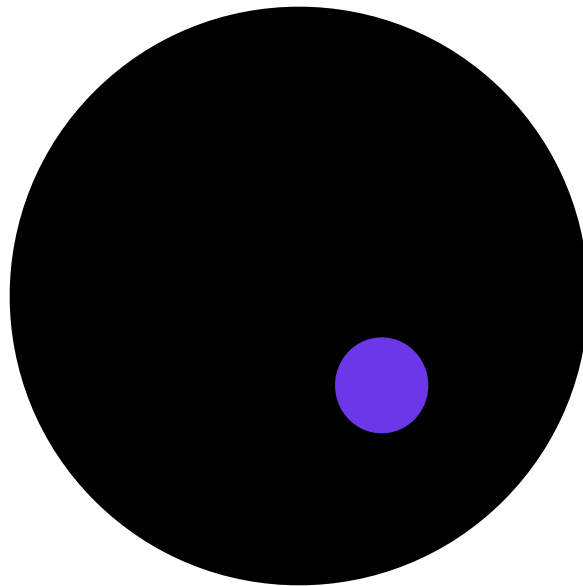
Skillful Communication

- Be fully present & listen
 - to yourself: e.g., notice anger
 - & to them
- Make sure they know you've heard them
- Empathize with them (Yes...)
- Speak your truth skillfully (...and)

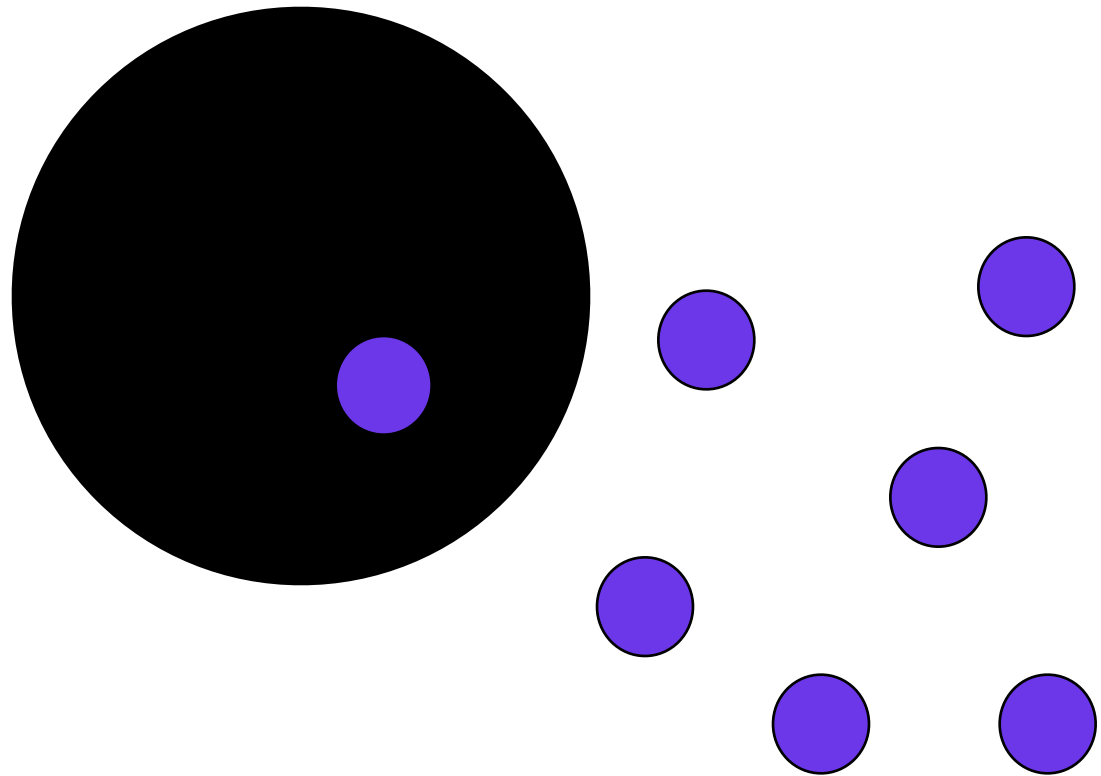
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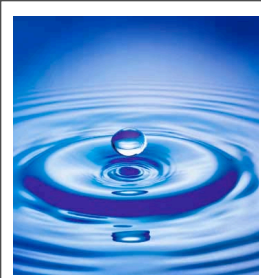


Re-entry



Re-entry: need for community





Maximize sustainable well-being

- Be fully human right here, right now
 - Treatment provider & scientist
 - Family member
 - Citizen
- Requires being fully present
 - It's about you & the community & the planet
 - Take a deep breath when you enter the room
 - Pay attention to the full catastrophe
 - Compassion to self & other
- Lean in to a more sustainable lifestyle
- Work with others for lifestyle change





“You must be the change
you wish to see in the
world.”