



Write your own DNA

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www.thrivingadolescent.com

A unified approach to improving the lives of young people

THE THRIVING ADOLESCENT
 FOR THERAPISTS, TEACHERS & SCHOOL COORDINATORS
 Using Acceptance and Commitment Therapy and Positive Psychology to Help Teens Manage Emotions, Achieve Goals, and Build Connections

get out of your mind & into your life for teens
 a guide to living an extraordinary life

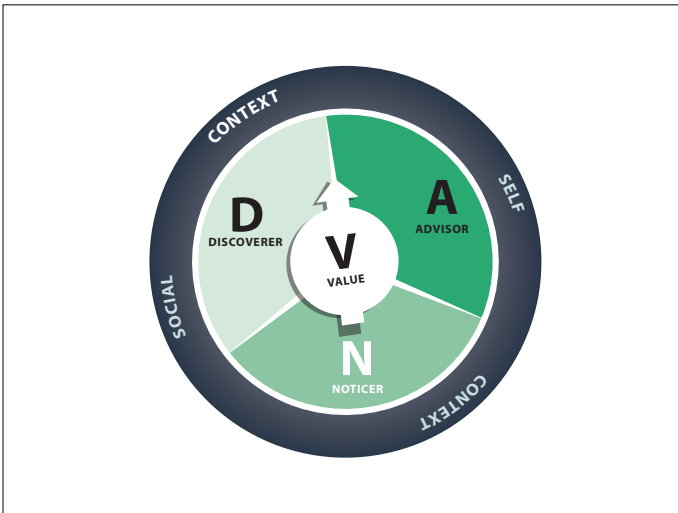
- * recognize your strengths
- * let go of anxiety and self-doubt
- * make lasting friendships
- * live your dreams

LOUISE L. HAYES, PHD
 JOSEPH CIARROCHI, PHD
 FORWARDED BY STEVEN C. HAYES, PHD

STEVEN C. HAYES, PHD
 LOUISE HAYES, PHD
 AND GALEY MA
 FOREWORD BY STEVEN C. HAYES, PHD

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Rationale

- Our question -How do humans grow and adapt flexibly?
- ACT
 - For adults
 - Psychopathology focus - originally
 - Did not consider developmental issues
 - Was top down, we wanted bottom up



your DNA is infinitely changeable,
 epigenetic changes through multiple streams -
 (e.g. health, movement, food, love, even mindfulness and on.....)

Jablonka, E., & Lamb, M. (2006). Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life (Life and Mind: Philosophical Issues in Biology and Psychology): The MIT Press.



Is it my brain or chemical?

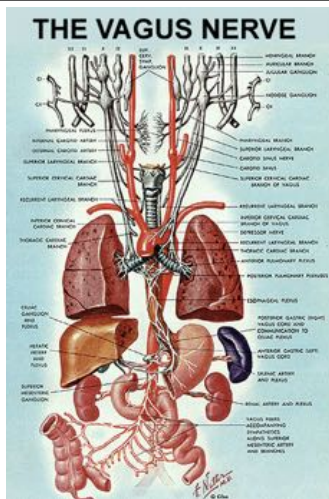


**your brain is not the boss
you are a whole system**

how about your body? Is it just a



Without our
body, how
would our
brains know
the world?



Vagus (10th cranial nerve) feeds information to our brain

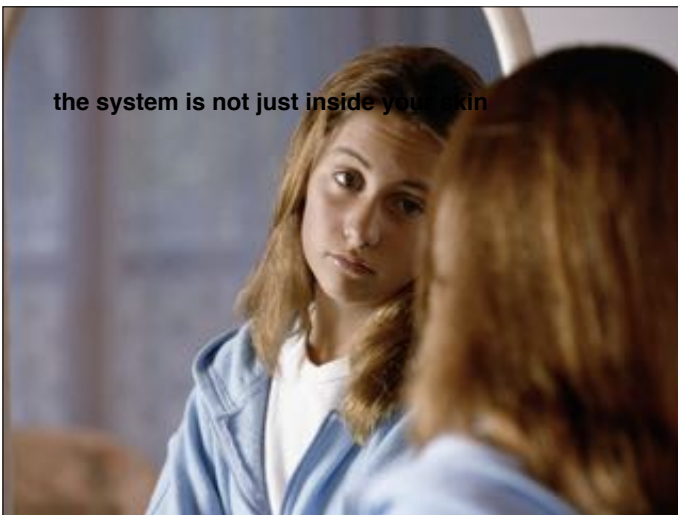
80% of the nerve fibres go from the body to the brain (Porges, et al 2011 February ; doi:10.1002/icd.688)





your brain is not the boss
you are a whole system

so is the system just genes, brains, and bodies?



the system is not just inside you



Harlow, Harry F., and Robert R. Zimmermann. "Affective responses in the infant monkey." *Science* (1959).



Social connection shapes us - our genes, our brains, our bodies
Social is as important as nutrition



....DNA-v is about our whole system

CBS is also a whole system science

Evolution science and it's principles of variation, selection and retention for the purposes of adaptation

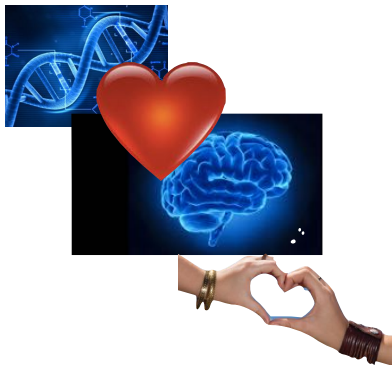
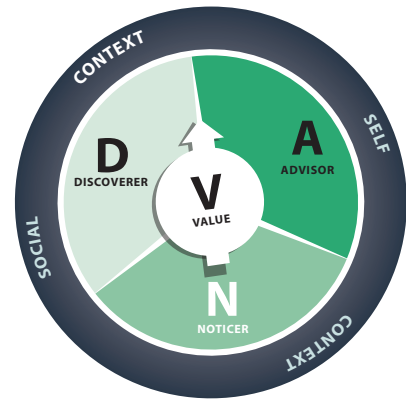
worldview of functional contextualism

behavioural principles from operant theory and relational frame theory

applied realm with Acceptance and Commitment Therapy (and fellow travellers)

- One goal:
 - basic and applied scientific methods to predict and influence the behaviour of humans with precision, scope and depth

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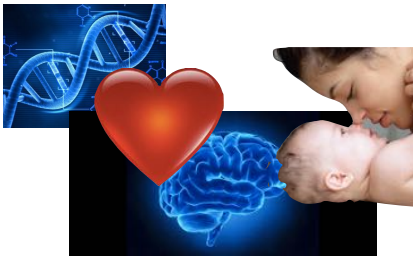
How will you write your own DNA?

choose 3 numbers
between 1 and 63

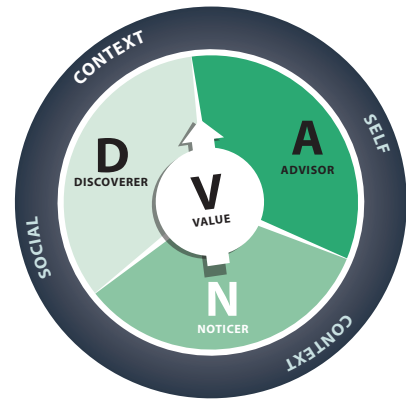
START here	Travel	Get Deported	Success	Cheat others	Be Honoured	Unemployed	Graduate Highschool
Be Honest	Big debts	Wealthy	Hate where you live	Change the world	Go to Prison	Be Creative	Angry
Sad old age	Work hard	Get rejected	Brave	Drop out	Love others	Be Impulsive	Persist
Happiness	Hate your job	Lead others	Gamble	Big Business	Criminal	Influence	Take from others
Become lazy	Fame	Be poor	Ambition	Steal	Learn ABC	Face ruin	Help others
Married	Embezzle money	Fight for peace	Become a Scrooge	Wisdom	Addicted	Be careful	Expelled
Be a hermit	Experience beauty	Lie compulsively	Adventure	Get fired	Happy old age	You stink	Seek Truth
College University	Be mean	Go into Politics	Be Grumpy	Love	Live alone	Have fun	Fail school

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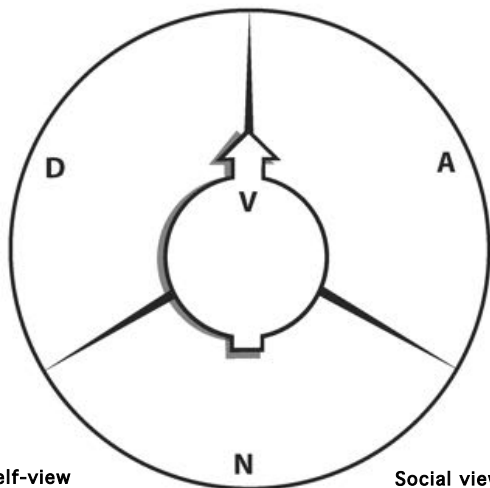
choosing



what do you love?



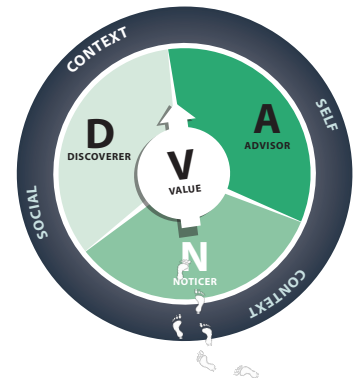
Social DNA



Self-view

Social view

stepping
into the
the
noticer
space



we start as noticers, with a drive to connect



noticing all sensations, with discomfort,
but without verbal evaluations/judgements/control

but, like all mammals, our bodies have evolved to always be on guard



Polyvagal theory (Porges, 2011)

- Porges Polyvagal theory built on Darwin's observations of the nervous system.
- Polyvagal refers to the evolution of the branches of the vagus system
- Considered ground breaking, is a sophisticated understanding of biological safety and danger detection in mammals
- Neuroception, focuses on the detection of safety or danger between from the environment and the people around us



visceral system neuroanatomically links heart and lungs to facial expression, muscles in the face and head, middle ear, larynx..

<https://www.youtube.com/watch?v=YemitZJBT1Y>

The Quest for Safety: Emergent Properties of Physiological State



The ultimate survival machine

Table II. Physiological functions of autonomic subsystems

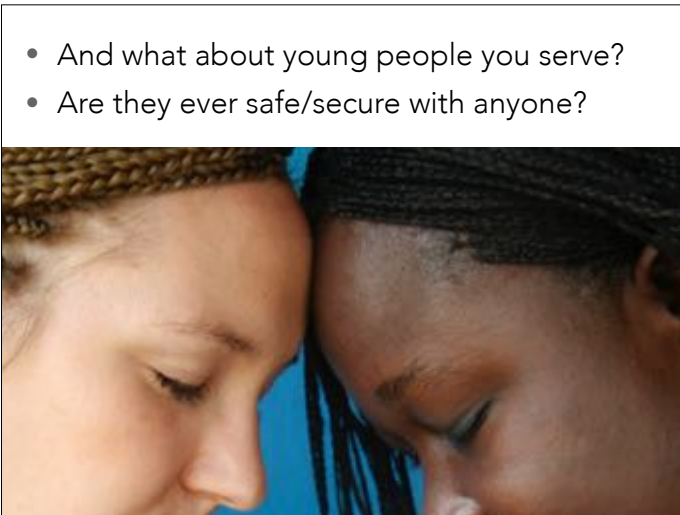
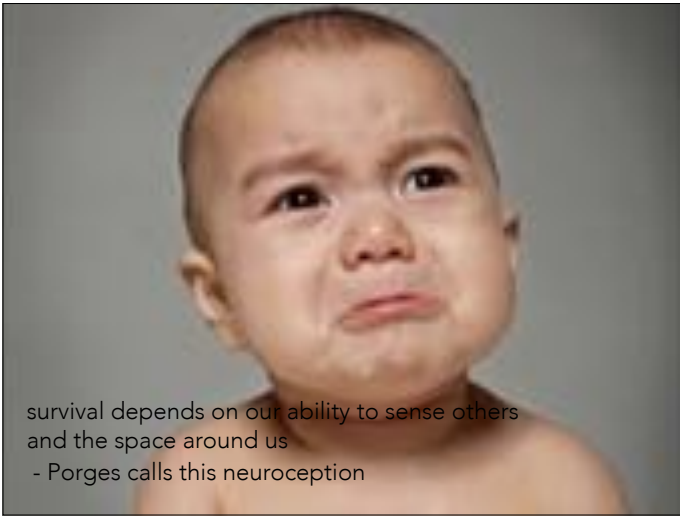
Physiological functions/systems	VVC	SNS	DVC
Heart rate	+/-	+	-
Bronchi	+/-	+	-
Gastrointestinal		+	+
Vasoconstriction		+	
Sweat		+	
Adrenal medulla		+	
Tears	+/-		
Vocalization	+/-		
Facial muscles	+/-		
Eyelids	+/-		
Middle ear muscles	+/-		

VVC, ventral vagal complex; SNS, sympathetic nervous system; DVC, dorsal vagal complex. DVC slows heart rate, constricts bronchi, and stimulates gastrointestinal function. SNS increases heart rate, dilates bronchi, inhibits gastrointestinal function, promotes vasoconstriction, increases sweating, and activates catecholamine release from the adrenal medulla. Depending on degree of neural tone, VVC either slows or speeds heart rate, constricts or dilates bronchi, lowers or raises vocalization pitch, regulates middle ear muscles to foster perception of human voice, and increases or decreases facial expressivity

Porges, S. W. (1998). Love: an emergent property of the mammalian autonomic nervous system. *Psychoneuroendocrinology*, 23(8), 837-861.



We are most threatened when our close attachments are at risk. Tonick's still face experiments
HAM, J. and TRONICK, E. (2006), Infant Resilience to the Stress of the Still-Face. *Annals of the New York Academy of Sciences*, 1094: 297-302. doi: 10.1196/annals.



3 basic noticer skills

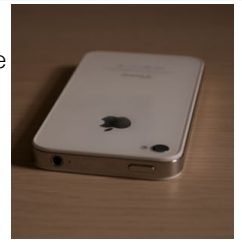
you have a message



how about this?

pause

but there are other options..



be here



allow it to ring



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not if you have a body



1.
2.

first thing...

A-N-D

aware



name the body message

describe I really want to be on you right now.



Mindful mashup

- 3 rules
- 1. pause
- 2. fix attention on an anchor
- 3. notice what shows up - curiosity

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music_1

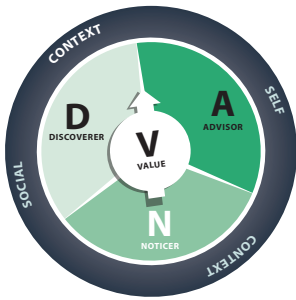
Balloon breathing

A single, inflated pink balloon is centered on a white background.

Noticer isn't just about feelings

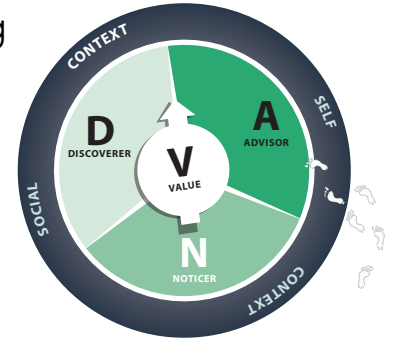
- becoming aware of your engine running
- our physiology can be altered
- through moving, breathing, mindfulness, etc
- but also being seen, and loved by others

A person is sitting on a grassy hill, looking out over a valley with a winding river and mountains in the distance.



Write your own N
 what is hard? what feelings?
 What N skills can you use

stepping
 into the
 the
 advisor
 space



AT FIRST ADULTS
 SPEAK FOR US



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THEN WE TAKE OVER
 AND SPEAK FOR
 OURSELVES



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we learn to use
 language to
 imagine and
 pretend



until, we become the person we talk to the most,
 our best friend, our constant companion....



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we create a view that is unique to us



our very own advisor ⁶²

There is a lion in the grass



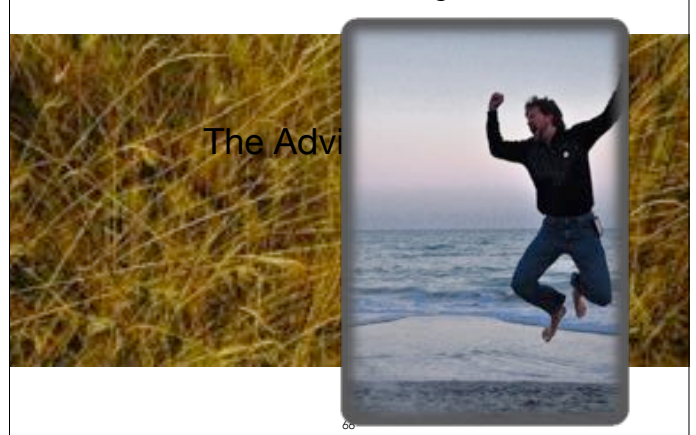
There is a lion in the grass



There is a lion in the grass

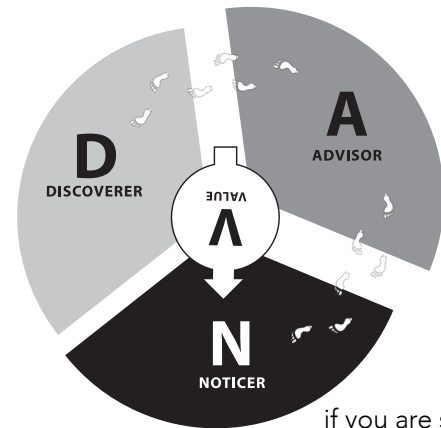


There is a lion in the grass



The advisor helps us find our way

- 1. normalise advisor's 'watching out' function
- 2. decide helpfulness - does it help build meaning
- 3. unhook if stuck - step out of advisor to N or D
- 4. develop helpful rules



if you are stuck,
do the walk...

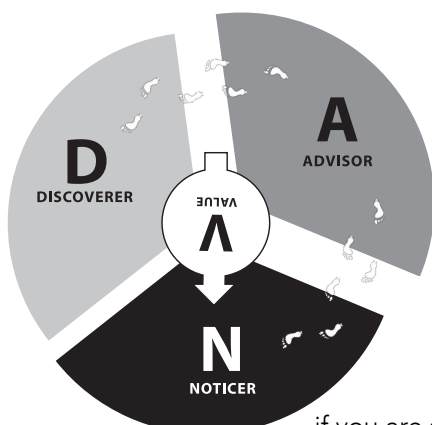
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A-only

have your advisor take you

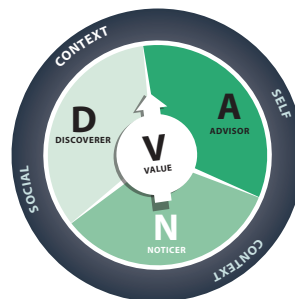
A-N shift

you take your advisor



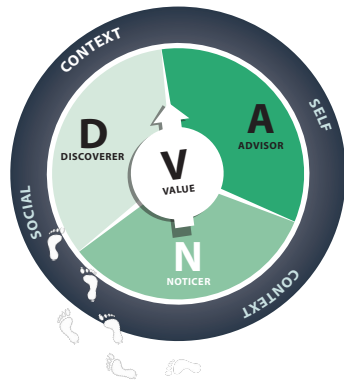
if you are stuck,
do the walk...

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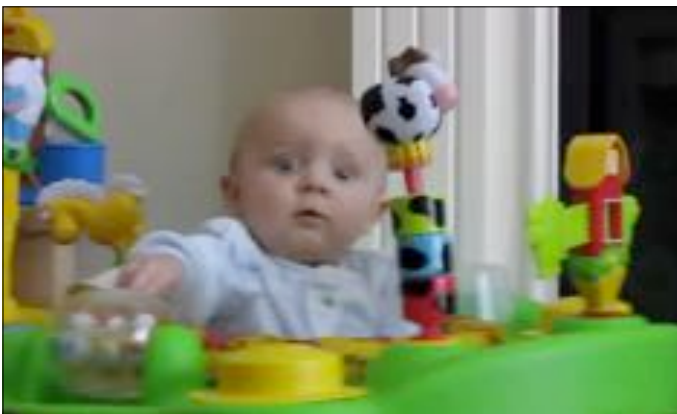
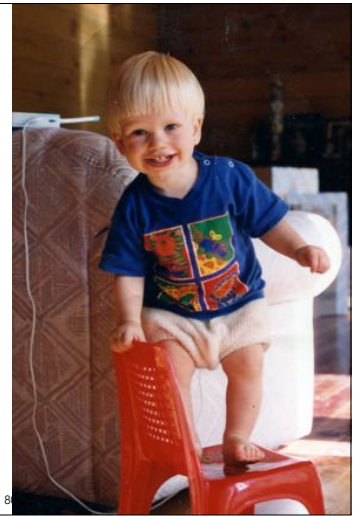
**Write in your A space
what will be your most discouraging
and encouraging advice?**

stepping
into the
the
discoverer
space



We discover

- the world can be moved
- manipulated
- changed
- we have agency



play = the ability to be scared and still be a discoverer

what is adolescence
for?

animal studies on adolescence

- Animal adolescence - risk taking, love of novelty, sensation seeking, and changes in peer and family relationship (Spear, 2004, Laviola, Macrì, Morley-Fletcher, & Walter, 2003)

anthropological studies on adolescence

- Human adolescence seen across 187 countries - risk taking, love of novelty, sensation seeking, and changes in peer and family relationship - (Schlegel & Barry, 1991)

risk taking, love of novelty and sensations

evolved in adolescence for learning to be independent - for survival

discoverer is the step for this



maladaptive risk

adaptive risk



Discoverer in 4 steps

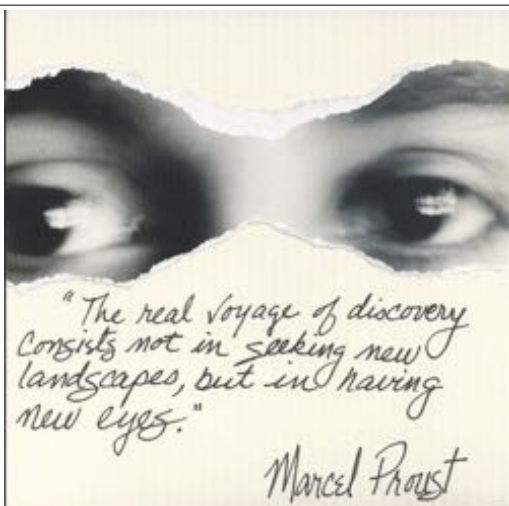
tracking what is working (ABC)

building strengths

creating values

explore new and untested behaviour

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DNA eating



Teach them to track - How did it go?

The Situation	What You Did	What Happened Next	Did It Work Out? (Make Life More Meaningful)

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Build Strengths



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Strength Spotting Card Sort

- your top five strengths
- one strength you wish you had



Honesty
I tell people what I care about, keep promises, and don't lie

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Strength Spotting Card Sort

- tell your partner what you chose, and discuss the comparison between their self choice and hearing from another
- talk about YOURS, and
- whether you use your strength FOR values, or away from values



Honesty
I tell people what I care about, keep promises, and don't lie

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D exercise DNA-V of Your Life

Write down five events that have happened in the past few years



DNA-V of Your Life

Step to Discover
Look through the physical experience of recent times.
write down what is there
anything at all that you notice as you scan
- about 20 things





DNA-V of Your Life

Step to Noticer

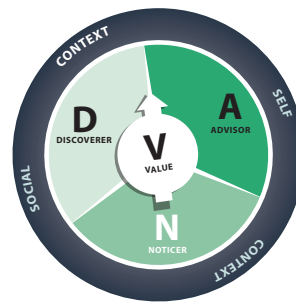
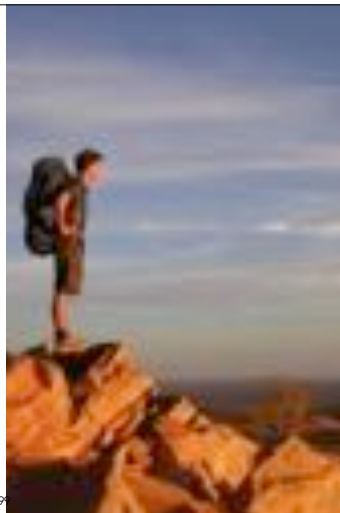
Compare - your recollection
with your physical evidence.

What is different?



My valued journey

- Identifying Past Values
- Identifying Favorites
- Dreaming of the Future



**Write in your D space
what you have been trying, how it is
going, what might be new to
discover**

Returning to Values Connect to Actions

Values

- chosen
- quality of action
- not an outcome
- not a goal
- constructed from language
- held lightly
- dynamic
- intrinsically reinforcing





six ways to well being



sweet spot (Kelly Wilson)



Care for yourself

Self-care includes anything you do to make sure your mind and body are working well.

treating yourself to a fun activity after a hard day at school,

being kind to yourself during tough times,

eating well, and getting enough sleep.

DONT put this last on the list!!!



Connect

being with family, friends, mentors, pets



Give

Giving to others promotes your own well-being.

Think of times when you did something for someone, such as thanking someone, paying someone a compliment, or helping someone work through a problem.

Or maybe you gave someone a gift by just listening to or accepting that person. Other ways of giving include taking care of animals or the environment.



Being active

Going for a walk or run. Stepping outside, cycle, play a game, dance.

Exercising makes you feel good.

physical activity you found meaningful.



Notice now

Think of times when you've been a noticer, paying attention with your five senses: touch, taste, sight, sound, and smell.

Nature, experiences, the world inside and outside

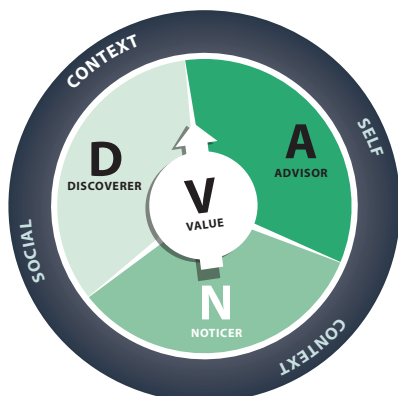
or, fully engaged with a friend



Challenge yourself

Think of how you might challenge yourself or perhaps learn something new.

What are some challenging activities that you find enjoyable, meaningful, or personally important?



Applying Behavioral Principles to Examining the Self

- Self is merely the act of relating to oneself
- but with use it is over learned
- it can become us, but with variability in behaviour, we can become free of this
- therefore has ABCs
- Q to ask = how does the selfing work in this context?

Why reassurance can go wrong

- I am bad/broken/screwed up
- Rule following



Role switches



Using control and the self

- Clinging to the abusive Advisor
 - self criticism is helpful
- Disconnection from self
 - escape themselves with drugs etc
- Disconnection from others
 - withdraw from others
- Needing the self fixed from 'outside'
 - want others to convince them they are good enough

The antidote to an abusive Advisor

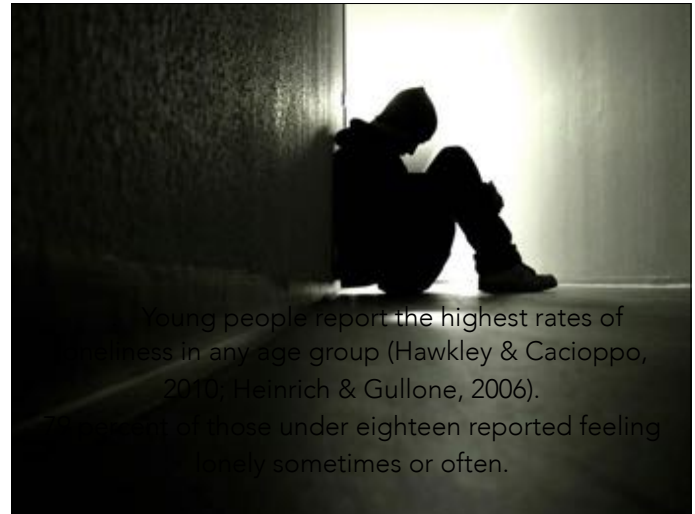
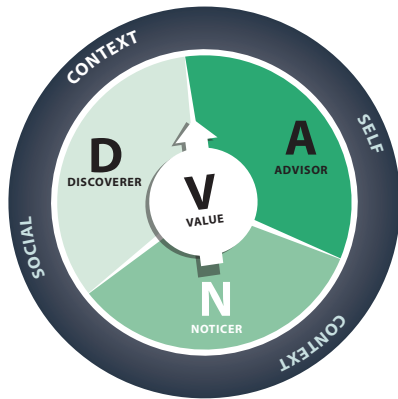
- Allow noticing
 - especially in body
- Seeing all self through metaphor
- Discovering with exercises
 - Perspective taking
 - The wise traveller



The elements of self-compassion

	Never	Rarely	Sometime	Often	Always
1. Do you accept that you will often fail to live up to your ideals ?	1	2	3	4	5
2. Do you accept that when you fail to live up to your ideals, you will often experience self-criticism and discomfort?	1	2	3	4	5
3. Are you willing to mindfully make space for the self-criticism and discomfort, and allow it to come and go like the weather?	1	2	3	4	5
4. Do you value treating yourself with kindness?	1	2	3	4	5
5. Do you use kindness to motivate yourself when you experience setbacks?	1	2	3	4	5





Young people report the highest rates of loneliness in any age group (Hawkey & Cacioppo, 2010; Heinrich & Gullone, 2006).
 1 in 4 of those under eighteen reported feeling lonely sometimes or often.

What does loneliness predict?

- Heart disease
- Obesity
- Impaired cognitive performance
- Poor sleep quality
- Poor immune function
- Mental health problems
- Poor self-control
-and the list goes on

Adolescent attachment?

- Adolescence is a time of critical growth in biological, brain, cognitive and social functioning
- adult problems set their roots, with up to 40% of mental illness (ref mcgorry) in adults beginning in the adolescent period
- need a solid relationship with parents that facilitates communication, and allows exploration but also providing fair rules and boundaries
- does not mean absence of conflict
- Securely attached adolescents will have a strong relationship, be able to express their opinions even while disagreeing, validate other's opinions and show empathy

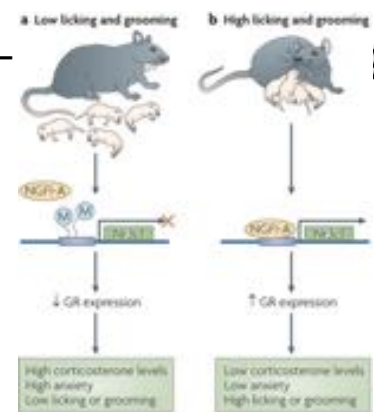
Changing relationships

During adolescence, perceived parental support declines and perceived support from friends increases until the point where support from both sources are similar (Helsen et al., 2000) (Furman & Buhrmester, 1992).

Later adolescence is characterized by another shift, this time away from peers towards romantic relationships (Helsen et al., 2000) (Brown, Eicher, & Petrie, 1986).

Importantly, support from parents is more strongly associated with well-being and development than support from friends, and having friends does not adequately compensate for a lack of support from parents (Helsen et al., 2000)

Meaney -





steal back time - be together

try fewer questions, (sometimes dont even make eye contact.)

download tip sheet

The purpose? Survival

keep watch for the enemy in the service of protecting the group

highly coordinated when we work as a team

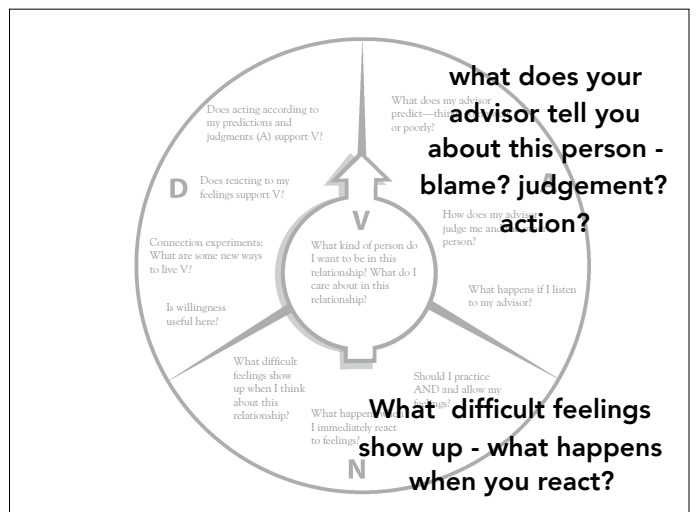
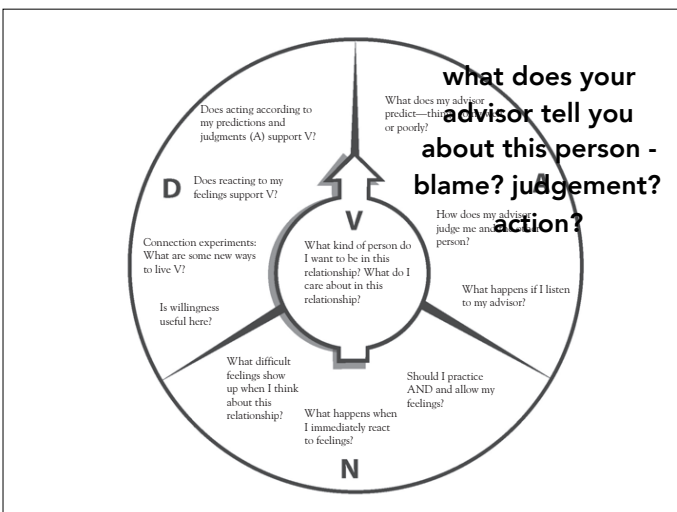
can ensure food and survival more than individuals

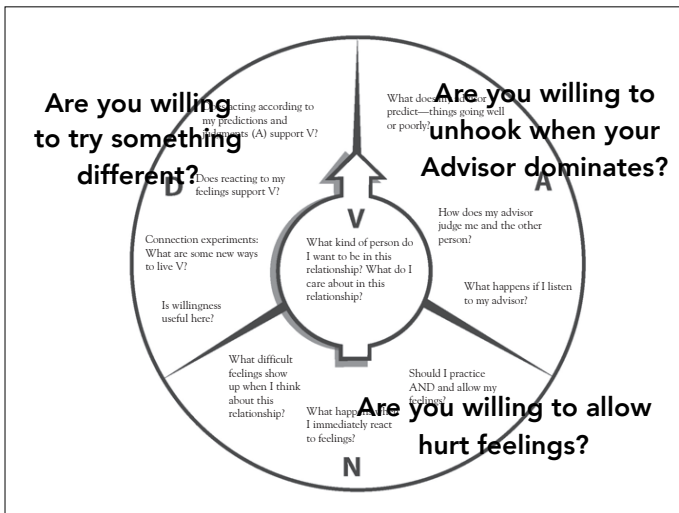
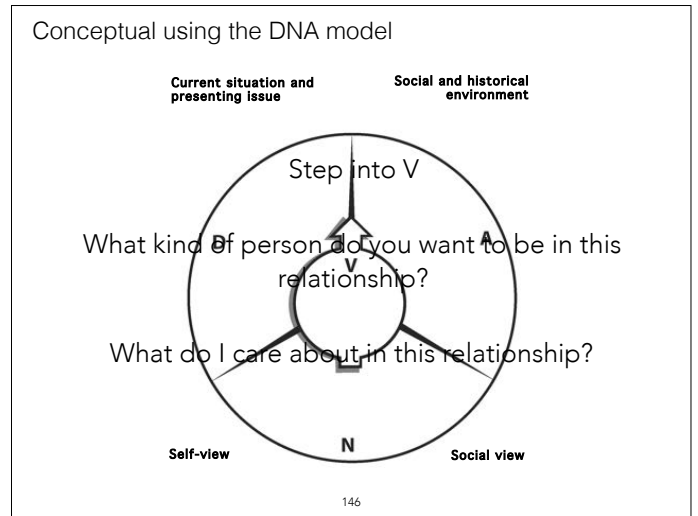
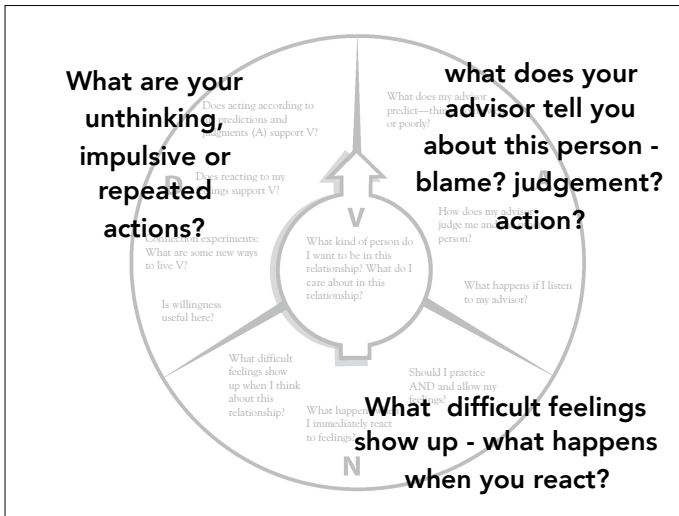
unselfish humans are willing to risk their lives for the good of the tribe

selfish groups look after themselves

selfish groups tend to disorganisation and destruction over time

Social DNA-v



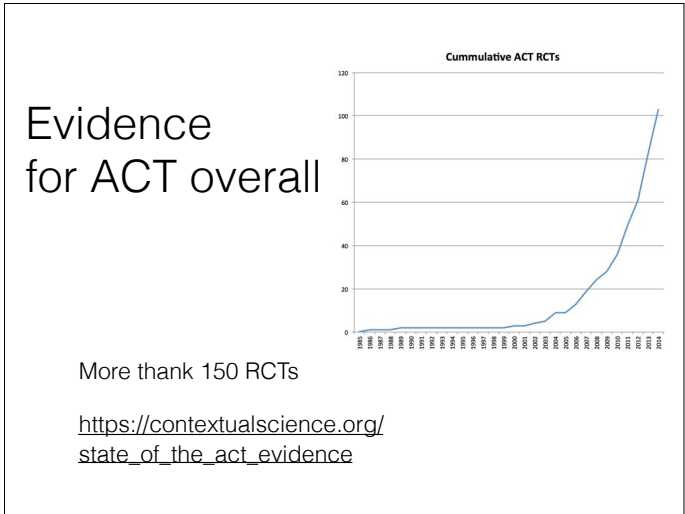


follow up
slides will be on

www.thrivingadolescent.com

mindful adventures
not for profit, mindfulness professional development

www.louisehayes.com.au




Mindful mashup

- 3 rules
- 1. pause
- 2. fix attention on an anchor
- 3. notice what shows up - curiosity

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Mindfulness list

- A-N-D
- Breathing (Balloon Breathing, Hand rising and falling)
- Eating
- Walking
- Listening to sounds
- Stretching
- Moving
- Yoga
- Observing the outside world
- Listening to music
- Playing
- Having a conversation



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Evidence for ACT overall

More than 150 RCTs

Multiple presentations from health, to well being, to psychopathology

American Psychological Association, Society of Clinical Psychology (Div. 12), Research Supported Psychological Treatments:

- Chronic Pain - Strong Research Support
- Depression - Modest Research Support
- Mixed anxiety - Modest Research Support
- Obsessive-Compulsive Disorder - Modest Research Support
- Psychosis - Modest Research Support

https://contextualscience.org/state_of_the_act_evidence

Emerging evidence for young people for ACT

Our studies

Livheim, F., Hayes, L., Ghaderi, A., Magnusdottir, T., Högfeldt, A., Rowse, J., & ... & Tengström, A. (2014). The effectiveness of acceptance and commitment therapy for adolescent mental health: Swedish and Australian pilot outcomes. *Journal of Child and Family Studies*, 24, 1016-1030.

Hayes, L., Boyd, C. P., & Sewell, J. (2011). Acceptance and commitment therapy for the treatment of adolescent depression: A pilot study in a psychiatric outpatient setting. *Mindfulness*, 2(2), 86-94.

Others

Wicksell, R., Melin, L., Lekander, M., & Olsson, G. L. (2009). Evaluating the effectiveness of exposure and acceptance strategies to improve functioning and quality of life in longstanding pediatric pain - A randomized controlled trial. *Pain*, 37, 1-14.

Plus some small case studies designs

