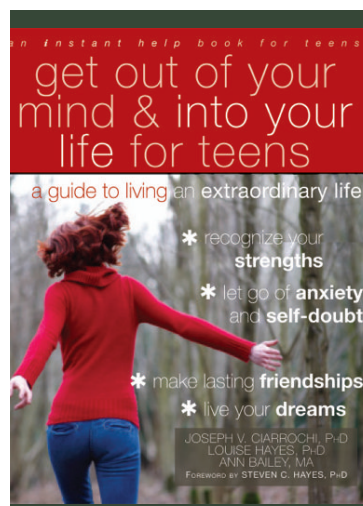




Functional Adolescent

Louise Hayes, PhD & Darin Cairns

Orygen Youth Health Research Centre,
Centre for Youth Mental Health, University of Melbourne
www.actforadolescents.com



www.actforadolescents.com (a work in progress - revisit occasionally!)

Get out of Your Mind and Into Your life (about \$12 on amazon)

New practitioner book on the way (end 2014)

what is adolescence, really?

- Adolescence or Youth or Young People 12 to 24 years
- a time of physical and mental maturing
 - compared with children they are:-
 - physically - faster, stronger, bigger,
 - psychologically - have greater reasoning capacity, greater capacity to handle stress,
 - biologically - increased pain tolerance, and better immune function (Dahl, 2004)
 - as a culture, we ought to expect this to be a time of strength and resilience
 - why dont we see adolescence in this way?

strength also brings vulnerability...

- morbidity and mortality rates increase in adolescence by 200%
- major source of this difficulty is emotional and behavioral problems
 - psychiatric illness is most likely to begin
 - greatest time for risk taking, sensation seeking and the onset of alcohol, drug and substance use
 - have good reasoning and problem solving skills, yet are more prone to erratic and emotionally influenced behavior

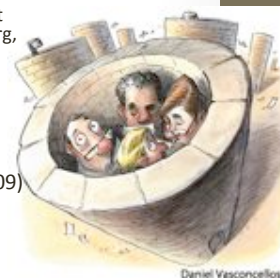


and a unique social context



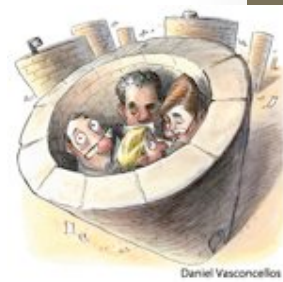
Where are we as a science?

- History of disparate stage based 'grand theories (moral development, identity development, cognitive development, etc)
- Neuroscience the adolescent brain brought key insights:
 - early adolescence sees increase in appetitive drive, that can be unchecked until self-regulation systems mature
 - unfolds within an environmental context and is experience dependent
 - research findings at risk of being narrowly understood without integration into psychological and contextual studies (Steinberg, 2009)
 - individual differences
- Popular culture interprets this as "brain is the cause of adolescent behaviour"
 - Different to adults, does not mean deficient (Steinberg, 2009)



Where we must go

- Must have an interaction model (obvious but we don't do it)
 - evolutionary processes - adaptation, variation, selection
 - biological,
 - behavior,
 - social context
 - and, importantly, individual variation



Psychological research?

- Adolescent literature
 - Stage based progression through adolescence to adulthood (organicism as root metaphor)
 - mostly correlational evidence from self-reports,
 - neglects individual difference,
 - narrowly focused measures and constructs
- overlooking function and context

Where did behavioural principles go?



- 2 volumes, 1400 pages
 - Operant and
 - Contingency are not mentioned once in the index.

What happened to behaviour?

- Behavioural accounts rarely appear in the adolescent literature today. Why?
 - operant seemed to help us understand small children
 - parent training (contingency management) empirically supported AND widely used
 - but appeared inadequate for adolescents because we could not account for seemingly non-contingent and rapid changes seen in adolescence
 - 3 term contingency was not enough
 - we needed a theory of verbal behaviour
- RFT can help us examine the rapid changes in verbal behaviour
 - from a reliable symbolic source (parents)
 - to an internal source of information (self)
 - and external source (peers)

CBS

- Is a conceptual framework that can bring it all together
- CBS adopts the act-in-context as the root metaphor and can help us with breadth from evolutionary principles of adaptation, to biological, behavioural and cultural streams
- Based on function not form
 - allows us to examine individual differences using well established principles
 - has clear goals of prediction and influence, with precision, scope and depth
- Our goal, influence the individual adolescent AND their context

CBS

- World view is functional-contextualism
 - Contextual
 - Behavioural
- In CBS, every aspect of human development is an interaction between the individual and their context.
 - Context is everything other than the behaviour of interest
 - Adolescent brains are influenced by context

CBS view

- Evolution science can help us to create a wholly interactive view of adolescence
 - Evolution hampered by
 - The naturalistic fallacy (that nature instructs how we 'ought to be')
 - we can and do influence evolution, we can take ourselves where we want to go
 - The genetic determinism fallacy (that genes determine how we are)
 - we now know that genes do not determine our behavior
 - there are four dimensions of inheritance - genetic, epigenetic, behavioral, and symbolic

CBS view

- All behaviour is purposeful
 - therefore, adolescent behaviours are likely to be purposeful,
 - use evolutionary principles to create positive change
 - variation - develop new behaviour when old one does not serve intended purpose
 - selection - engage them in the most useful behaviour for their purpose
 - retention - keeping them engaged in the behaviours
 - do all this at the individual and group level

Does adolescence have a purpose?

- physical maturation
 - beginning with the biological changes of puberty, and
- cognitive and social maturation
 - linked to brain development, learning and experiences obtained within an environmental context
- our task is to consider two things
 - the environment we evolved in (EEA)
 - AND the present day environment

Does adolescence have a purpose?

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

Adapting to environment

- Traditional societies - adolescence was a 2-4 year period,
 - physical maturation key indicator
 - learnt adult roles from adults
 - spent time caring for small children and babies
 - lived in larger family and community groups
- majority of their waking hours with adults of the same sex –
 - in 66% of 161 cultures for boys and in 84% of 160 cultures for girls
 - For boys, the father was the single most important agent in 79% of 173 cultures, while the mother is the most important for girls in 85% of 171 cultures (Schlegel, & Barry. 1991).

Adapting to environment

- In just a few hundred years we have changed adolescence
 - Now lasts 10 years,
 - They spend more time than ever with peers, rather than adults
 - % of children with one parent?
 - Most of their adolescence is spent with people 12-18 months in age range
 - Families are smaller and more transient
 - Internet and television sources of information

Does adolescence have a purpose?

- Adolescents can behave in ways that adults think is risky, thoughtless, or foolish
 - i.e declare themselves unique - whilst simultaneously conforming slavishly to their peers

An example – is risk purposeful?

- Non-human animal studies
- Adolescent animal behaviours include: risk taking, sensation seeking, and a preference for novelty (Spear, 2004)
 - For example, three age groups of mice were introduced to an elevated maze that had no protective walls and a risk of falling (Laviola, Macrì, Morley-Fletcher, & Walter, 2003)
 - juvenile and adult mice avoided the maze, showing heightened stress response to it.
 - Adolescent mice were attracted to the dangerous maze and didn't display any heightened anxiety levels to it.

Risk taking in context

- Animal research - risk and attraction to novelty is needed to leave safe surroundings to mate, especially for males (Spear, 2004)
 - Risk has trade-off costs - attraction to novelty exposes animals to life threatening situations (Kelley, et al., 2004; Spear, 2004)

Risky today?



Risk today

- We have risk that doesn't look risky - fast cars, FB
 - Three-quarters of teen deaths are due to preventable causes, i.e. risk taking (Kelley, et al., 2004)
 - Adolescent rats have heightened sensitivity to nicotine and alcohol. Makes them more vulnerable to self-administration in adulthood (Kelley, et al., 2004; Laviola, et al., 2003)
- Viewing risk as functional in some contexts, allows us to provide an environment that makes room for risk taking that is, less risky.

An example – is risk purposeful?

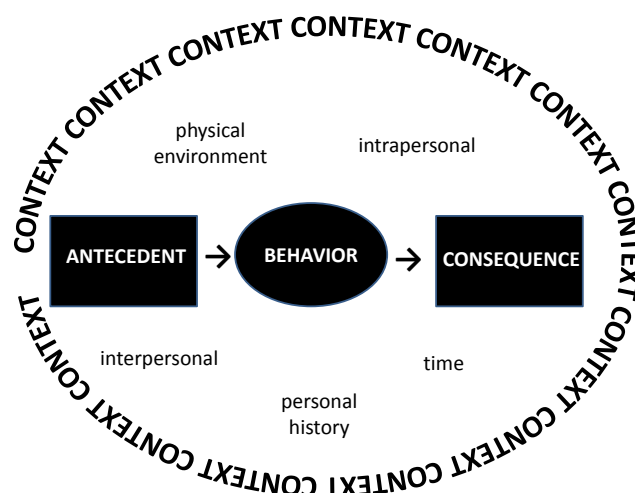
- Risk taking might not ONLY be maladaptive, it might be adaptive too
 - it hasn't been selected out
 - so what function does it serve?
 - how do we work WITH the function
 - how can we find ways to help them express it?
 - what are the trade-offs?
 - how do our interventions manage this?

Contingency shaping in adolescence

- biological reinforcers are expanded because of hormonal change,
- these hormonal changes create a context in which sexual attraction/ attractiveness become very powerful reinforcers,
 - time spent together and friends becomes increasingly reinforcing
 - group belonging
 - behaviour of older teens is highly reinforcing
 - behaviour that is non-sexual in nature dominates.
 - Guys want to fit into their gangs/ teams.
 - Girls their cliques group etc...



What is context?



Slide: J and M Villatte (2013) ACBS Boot Camp Reno

Stimulus control

- Stimuli make up the context
 - Responses are what an organism does
 - The two are dependent
- Setting event/establishing operations
 - An antecedent
- Antecedent
 - Stimuli that occurs before a behaviour - trigger
- Consequence
 - Occurs after a behaviour and change the probability of the behaviour occurring again
 - Reinforcers or punishers depending on their effect on behaviour

Stimulus Control

- Antecedent and consequential stimulus control
- My brown cardigan
 - Work habits that are under antecedent control
- My email checking
 - Behaviour controlled by consequences, my checking is reinforced by email (on a variable ratio)
- How about your own examples?

Aversives

- Stimuli we will work to stop, postpone, or avoid
- Overall tend to suppress behaviour
- Or induce escape patterns
- Tend to be narrow and inflexible (not always)
- Negative reinforcement, punishment, extinction

Appetitives

- Stimuli we will work FOR
- Reinforcement
- Examples include like food, praise..... Valued action
- Tend to be associated with broad flexible behaviour (not always)

Functional assessment

- Aim – to understand the FUNCTION of the behaviour (purpose, or why it occurs)
 - For the purposes of influencing it

ABC - Functional understanding of behaviour

Establishing operations/ Setting events	A – Antecedents or Triggers	B - Behaviour	C - Consequences	Hypothesised Function

conversation cards

- Micro processes and role play
- Record while doing role play, play back and show micro processes
- Now audience role play



www.sanjiwani.net.au

Louise Hayes – Public Officer,
Registered – Australian Charities Not-for-profit Commission
Incorporated Association Victoria - A005646L
95% of all funds provide direct health services

The self becomes an
information source

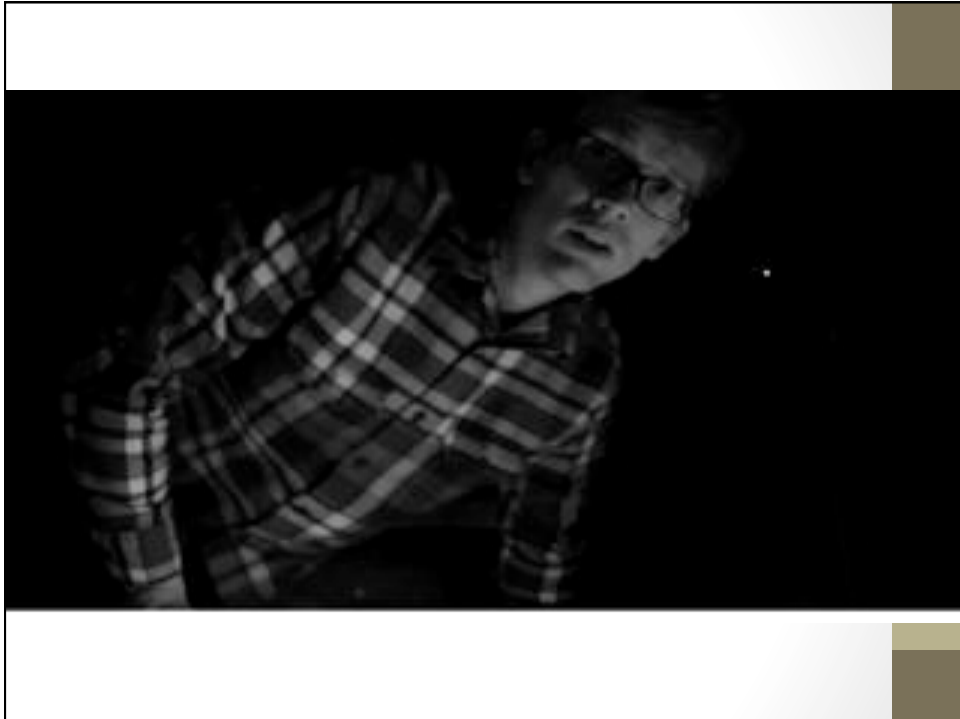
self



Sac cards

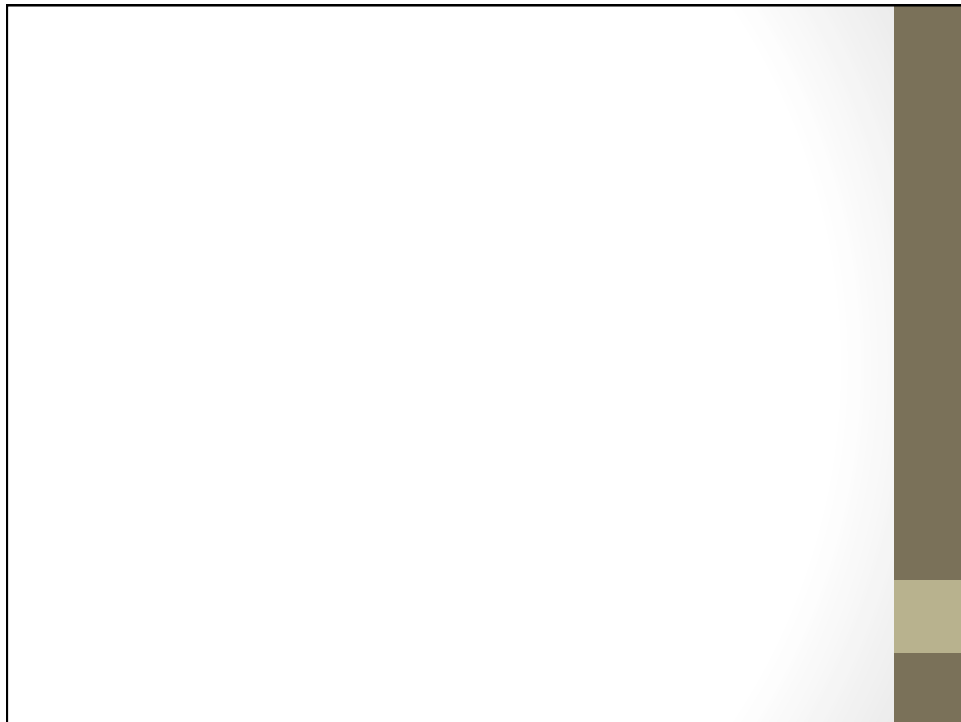
sac

- Write down the first four key characteristics that come to mind
 - In what way are these characteristics the same?
 - In what way are they different?
 - Was there a time you didn't have this?
 - When did you first get it?
 - How did it get here?
 - Is it likely you may not have it one day?
 - Is there parts of you that are not like these?
- Does the person next to you have it too? If they don't, what would it be like for them to have that?



The self becomes an information source

- You create you
- Other people create you (inside their heads)
- Terrifying



What might RFT add

- Help us build a research program to predict and influence adolescent verbal behaviour
- specifically
 - increase in peer relationship power
 - changes in parental authority
 - focus on self
 - powerful influence of others' opinion

Coordination - Opposition, Equivalence - Distinction

- In childhood, parents are the most credible source of information
- In adolescence, peers increase in credibility
 - Selection by consequences
 - peers, through sexual attraction become a more reinforcing source.
 - peers important for social identity, inclusion etc
 - parents unable to give advice on appearance, sex etc
- RFT we might see relations such as
 - individual same as peers, parents opposite to peers,
 - parents less credible than peers,
 - Peers do cool things.....therefore parents mostly uncool

Comparison

- *“My Mum would let me go, my Dad wont. I’m going to talk to Mum, she knows how to work my Dad. I don’t care if I have to sneak out, I’m going [everyone else can go]” 16-year old*
- Evaluating A in terms of B (in above - Mum|Dad, My curfew|Peer curfew)
 - Comparing themselves to others ramps up:
 - wanting to be the prettiest/smarest/coolest
 - favourable comparison affords power and influence over peer group
 - protects against ostracism
- Youth seek verification or validation from the group
 - Only ‘their’ group can judge what is ‘in’ (emo, goth, jock etc)
 - Symbols/names from peers assist them in role identification, this helps with prediction and influence in the peer group
 - Family are not credible here, they just don’t occupy the peer territory

Temporal

- *“No one will ever want to marry me!” 15 year old client*
- Temporal is related to other relations, like comparison, equivalence, specific to prediction - past, present, future prediction
- Unique because of predictive nature of time, in the context of a changing and expanding adolescent world
 - What next?! The future is looming
 - sexuality,
 - independence,
 - adult roles
 - No longer just the child in the family, but an independent person in the world

Causal

“Mum your voice is so loud, and that laugh, it’s embarrassing!! Speak quietly when you come to school! Don’t say stupid things to my friends, just say hello, that’s it!” LH, my son at 14 years

- Relations extend beyond basic comparison and are used to predict and influence outcomes
 - how do I get others to name/brand me?
 - group belonging - If other’s name me as cool, I will fit in
- A causes B causes C - can then derive that A causes C
 - peers are cool, parents are uncool,
 - derive that being with an uncool parent might ‘cause’ teen to be uncool too. Might be ostracized (groups all the way through!)

Hierarchy

I cannot possibly go out in these jeans, I will lose all my friends!!!

- A is a part of B - verbal relations to abstract properties in the non-arbitrary environment
- Self development
 - Who am I?
 - Which 'parts' of me are cool/nerdy
- Group belonging
 - I am in the cool group/nerd group
 - How should I behave to stay in?

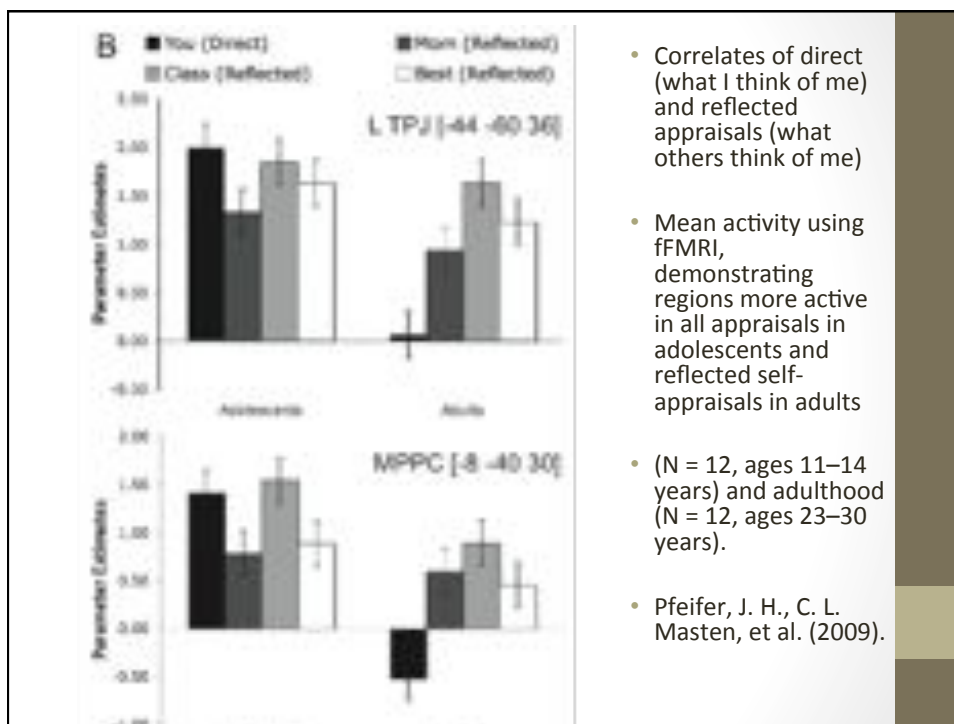
Deictic - Perspective Taking

- Relations in terms of the perspective of the speaker (I-YOU, HERE-THERE, NOW-THEN)
- Why does what others 'say' about you matter so much to adolescents?
 - biological changes make sexual attraction and peer seeking powerful,
 - peers become the primary reinforcer to facilitate that,
 - their context has completely changed from parents as most important source of information to peers,

Deictic - Perspective Taking

- seeking coherence
 - complex when everything is changing so rapidly
 - who am I?
 - how do I survive the jungle that is high school?
 - seeking coherence matters but they are not always sure what they are seeking coherence too





A Relational Frame Analysis of Defusion Interactions in Acceptance and Commitment Therapy. A Preliminary and Quasi-Experimental Study with At-Risk Adolescents

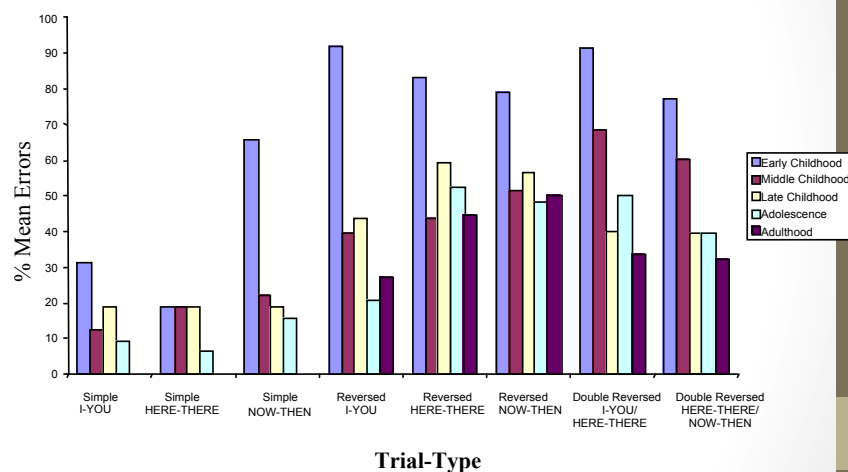
Carmen Luciano¹, Francisco J. Ruiz¹, Rosa M. Vizaño Torres¹, Vanessa Sánchez Martín¹, Olga Gutiérrez Martínez¹, and Juan C. López López¹

¹Universidad de Almería, España ²Universidad de Barcelona, España

ABSTRACT

The present study aims to analyze the interactions involved in some of the Defusion exercises that are typical of Acceptance and Commitment Therapy according to a Relational Frame Theory analysis. Two protocols were compared. Defusion I protocol was built with deictic framing trials while Defusion II protocol added hierarchical framing plus the function of regulating one's own behavior. Fifteen adolescents (12–15 years old) with high scores in the impulsivity or in the emotional subscales of the Behavior Assessment System for Children (BASC) volunteered to participate during the three tutorial classes formally available. In a first session, after responding to questionnaires on psychological inflexibility (AFQ-S) and on problematic behaviors, the three classes followed a values-oriented session. Two weeks later, 9 Low-risk participants (with less than 6 problematic behaviors) received either the Defusion I ($n=4$) or the Defusion II ($n=5$) protocols. Six High-risk participants (more than 6 problematic behaviors) received the Defusion II protocol. The comparison of both protocols with Low-risk participants showed that only

Developmental Profile of Emergence of Deictics



Using deictic Relations to Train a Flexible Self

Step 1. Basic Perspective Training 'If I were you, where would I be?'

'If I were you and here was there, where would I be?'

Step 2. Empathy Training

'I feel sad. If you were me, how would you feel?'

'I've won a prize. If you were me, how would you feel?'

Step 3. Self-as-Context

'I watch thoughts and feelings come and go. Who is it that is watching them?'

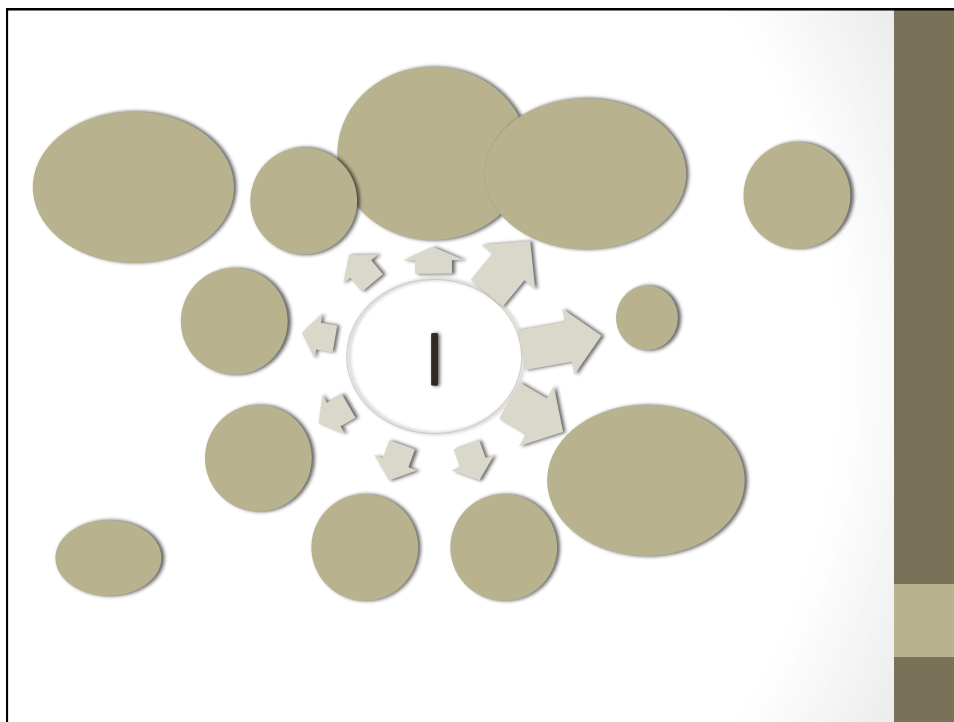
Using deictic Relations to Train a Flexible Self

- John is 18 years old, unrequited love for a female 'best friend', obsessive texting, angry, emotionally labile, failing his final year of high school, risking no university entrance
- *Q - If you were 25 year old John, and I was 18 year old John, what would you tell me?*
- *A –Pauses,*
- *"I would punch 18 year old John in the head!"*
- *Laughs, pauses, rubs his brow,*
- *"yeah "Future John" would think I should stop contact with her."*
- This young man brought "future john" into all subsequent sessions.

Sac exercise

sac

- Write down the first four key characteristics that come to mind
 - In what way are these characteristics the same? (equivalence)
 - In what way are they different? (opposition)
 - Was there a time you didn't have this? (temporal)
 - When did you first get it? (temporal)
 - How did it get here? (causal)
 - Is it likely you may not have it one day? (perspective)
 - Is there parts of you that are not like these? (hierarchy)
- Does the person next to you have it too? If they don't, what would it be like for them to have that? (perspective other)



RGB - the rules change

- Pliance
 - Shifts from parents know best to peers know better, because of changing contingencies and verbal relating
 - Parental pliance less effective
 - Parents seen as more fallible at this point because they don't know as much as the children thought they did
 - Lacking credibility in their adolescent domain
- One would assume that parents who rely on pliance are likely to have more difficulty with their adolescents behaviour (do as I say!)
- Early vs late starters are differentially influenced by parents (ref)
 - In high risk groups, giving weight to the opinion their parents is likely to be punished by peer group (don't drink, don't smoke, wear sensible clothes).

More complex RGB can occur

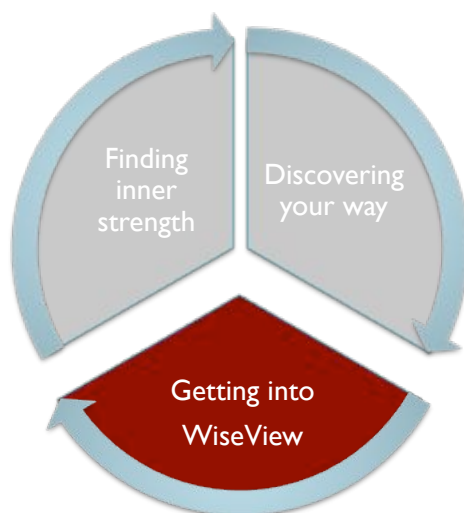
- Formative augmenting
 - behavior due to relational networks that establish given consequences as reinforcers or punishers
 - e.g. “study to achieve success”
 - Lessons on moral and ethical codes are heavily applied in society,
 - augmentals are likely to increase as cognitive capacity more able to apply abstract rules (rather than pliance)
- Notably, although parents dont have the ‘right’ answers to questions of sexual attraction/appearance,
 - research suggests parents are still turned to for advice on major life decisions (L. Haye, 2004).

More complex RGB can occur

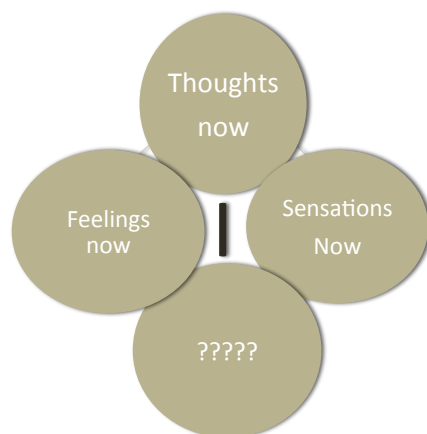
- Motivative augmentals
 - behavior due to relational networks that temporarily alter the degree to which previously established consequences function as reinforcers or punishers
 - e.g. John wouldnt think you were hot if he saw you studying now?
- A state of developmental change/adaptation might make motivative augmentals changable as adolescence sample different behaviours
 - e.g. yesterday it was cool to be an emo, today it isn’ t
- All this change makes values work important for shaping behaviour
 - We are creating new augmentals by establishing reinforcers or punishers that facilitate transformation of stimulus function
 - studying is not cool
 - John likes cool

And we can use RGB to examine peer influence

- Peers get invested with 'rule' giving power and thus get transformed as authorities
 - Pliance
 - Peers establish consequential control over social processes
 - Cool peers cant invite or exclude
 - Can create pliance, adhere to the cool peers.
 - Augmentals
- Formative: Sally can get any guy/party invite/ social life she wants (possible consequential history of Sally) Rule: "Sally is cool" (so cool = all those social gains)
- Motivative: Sally also realises that she cannot call herself cool (that is likely to be punished). So she needs others to call her cool to have a chance for the label to accurately predict.
 - John is cool, Sally emulates John, and through TSF can be seen as cool



Rigid Self/self-as-content



maps and land

- Discussions that normalise their experience of creating negative self-concepts:
 - What do these concepts say about us?
 - How similar are we?
- How restrictive are these concepts of self?
 - Have you used the self-concept map to decide what you can and cant do? Where you can and cant go?
- Finding new territory
 - What they might discover about themselves if they put the map down and explored their life in new ways?
 - Are their places they have not yet discovered?



Flexible self/self-as-process



- Michael
 - 20 years old, hates his job,
 - is quite hard to get information out of,
 - shrugs a lot, says 'dunno' a lot.
 - last week on way home from work, broke down while driving, cried, said he wanted to kill himself
 - doesn't know why

Increase self as process by naming the current experience

- Physical cues – feel, sensations, touch,
- Visual cues – what do you see?
- Auditory cues – what do you hear?

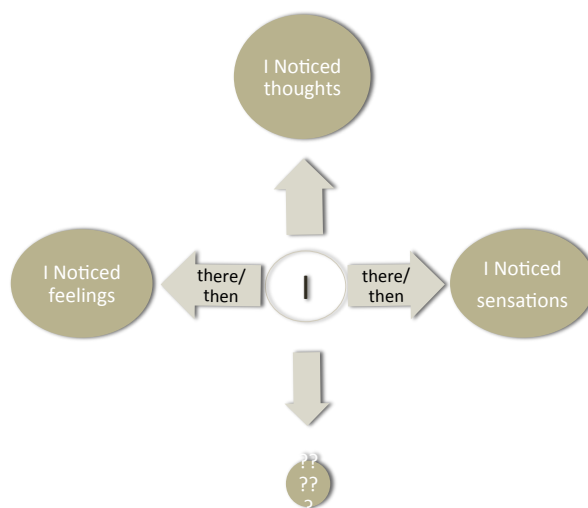
- Naming these,
- Especially 'how I feel'

- Place this in a simple frame –
 - All feelings are ok,
 - Some behaviours are ok, some behaviours are not ok

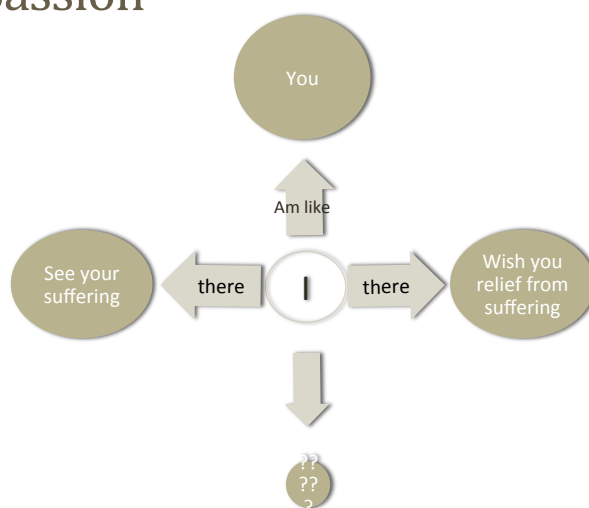
- B.O.L.D.
 - Breathe deeply and slowly
 - Observe
 - Listen to your values
 - Decide and do
- From GOYM-Teens



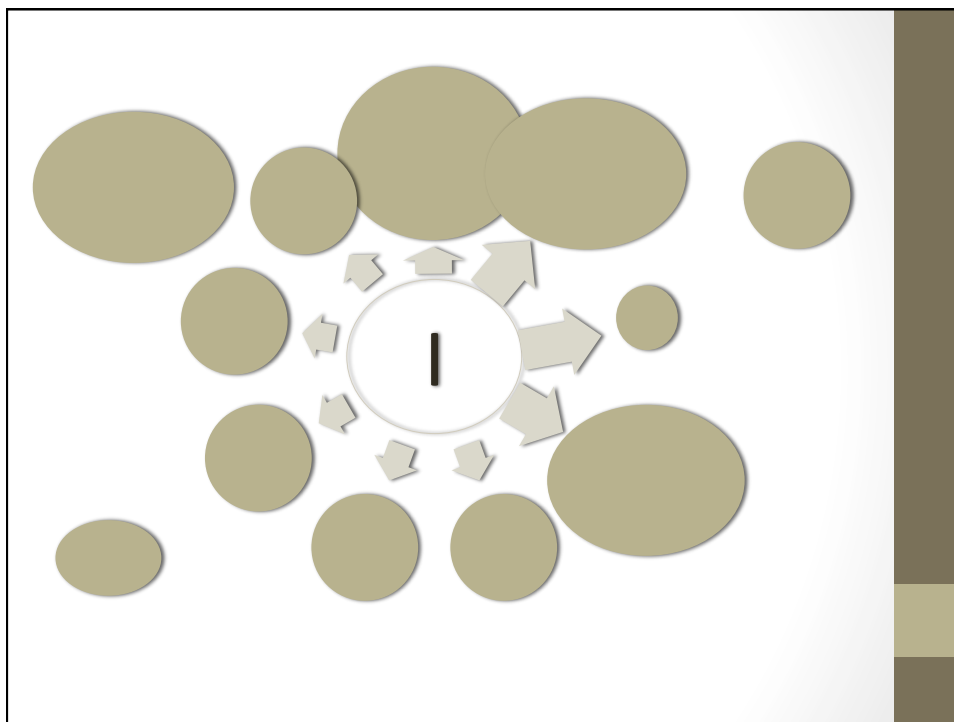
Self-as-context/perspective self



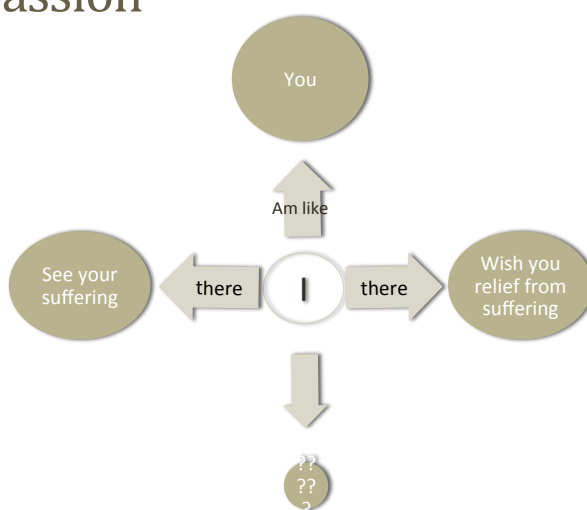
Perspective-self promoting other-compassion



sac cards



Perspective-self promoting Other-compassion



Your 3 selves

- You task is to write a reflection on yourself, using three or four lines. Here are some examples first:
-
-
- *I am broken,*
- *I feel saddened, my body heavy,*
- *I am a pilgrim that carries the past, and continues walking forward*
-
-
-
- We see here that the fixed-self is having the concept of being a broken person.
- Perspective-self is seeing a broader view, as a pilgrim, moves with strength and courage in the journey through life. As a metaphor, the base is continuing to move forward on a very important journey, one that is humble and courageous.
-
-
- *I am unworthy*
- *I am one sunflower stretching for the sun,*
- *Sharing common ground in a meadow of flowers*
-
- And again, fixed-self is a story of feeling unworthy, whereas perspective-self is created using a metaphor of one sunflower that shares common ground with many. As a metaphor, the base is the common ground, one flower amongst many, an understanding that suffering is shared.
-
-
- Now, without overthinking to this, see if you can write a first line that describes a word or phrase that you carry as a fixed concept. Think of all those 'I am....' concepts.
-
-
- The second part is to create 2 or 3 lines that describe your perspective-self in metaphor.
-
- Your perspective self is broad and expansive, a self that has multiple ways of seeing, moving and being in the world. Many people find words from nature are useful here like the sky and the weather described above. Consider things like the seasons, the ocean, the sky, a vast plain, or things that can be view from multiple angles, a fractal, a kaleidoscope, even a galaxy.
- There really is no right way to do this, it is about relaxing and letting yourself create (and observing when you fixed concepts hinder this).
- Note. Young people are usually much freer than adults at this task!!

What about the other?

- Other as content
- Other as process
- Other as context

conversation cards

Humans are prosocial

- E. O. Wilson argues that humans are a eusocial species
 - we live in groups that go across generations
 - we support and cooperate with each other (Wilson, 2012)
- The most successful species on the planet are eusocial
 - humans
 - and insects

Humans are prosocial

- Solo individuals would be at the mercy of the wilderness. We needed others to survive, we needed a group to belong to, and when we worked as a group we began to achieve feats that were far beyond the capacity of an individual.
- Cooperation and altruism became essential and our cooperative group genes were passed down through the generations.
- We are genetically geared to experience connection, empathy and compassion.

Multiple levels of influence

- Not just “individual” adolescents, we are a group species
 - evolved to co-operate
 - connection, empathy, and compassion
 - groups that “play well together” are more likely to survive and enrich society (Sloan Wilson, 2007; Wilson, 2012)

Groups expose us to altruism and cooperation

- For millions of years adolescents grew in mixed age groups.
 - Learning from adults, of all ages including elderly
 - Caring for babies and children
- A few hundred years on
 - Most of their waking hours are with same age peers (12-18 months apart)
 - Families are smaller, more disconnected, less time with adults.
 - Many of us never cared for a baby until we had our own
- We have no evidence this is better or worse
 - CBS take the assumption that nurturing groups matter for development of families, peers, schools, and communities

Selfish individual vs. the altruistic group member

- Where socialization doesn't matter, the strongest survive - i.e. non-social animals
- Humans are different, we survive because we use our individual qualities to strengthen our group
- AND we are also self-oriented, and our needs can conflict with the group needs
 - dominance, aggression and bullying have short-term gains
 - aggressive individuals are more likely to be shunned or avoided by their social groups (Coie & Dodge, 1998)

Selfish individual vs. the altruistic group member

- Aggression and prosocial behavior may serve the same function –
 - increase an individual's status and power
- Our role, create contexts
 - Where adolescents are reinforced and can see others reinforced for prosocial behavior
 - Where the symbolic world is built on tracking and augmentals (values)
 - being explicit about caring, cooperation, and altruism
 - While also considering their need to be strong, assertive, risk-taking, sensation seeking adapters!

Caution!!

- There is no ONE way of adapting
- For example, puberty has been occurring earlier in the West.
 - Diet is correlated with increases in body fat, which is associated with earlier puberty (Herman-Giddens, 2006)

Caution!

- There is no ONE way of adapting
- Early puberty
 - Also more likely when the family environment is harsh, or when the biological father is absent.
 - Question - how might this be adaptive?
- Cannot over interpret

The is no ONE way of adapting

- Early puberty
 - What are the trade offs?
 - Early maturing girls behave in ways that are considered outside the social and cultural norms.
 - They are at greater risk of sexual abuse, are more likely to have multiple partners and less stable relationships (Ellis et al., 2012).
- In other words their behavior tends to look maladaptive

What does all this mean for ACT?

- See our interventions – contextually and functionally
- Context must support our interventions
 - i.e. problem solving will fail if it is rarely modelled, or not reinforced by the context
 - telling them not to take risks, without considering their need for exploration and novelty
- Consider individual needs and group needs

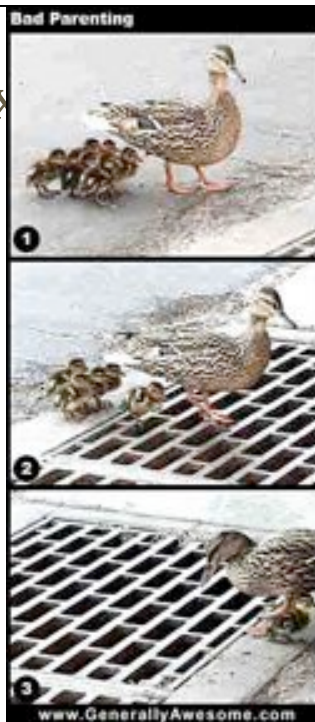
- Our social context depicts adolescents as deficient, as less than adults
 - They are not the problem,
 - They will adapt
- Question - how can we create contexts that are values based, prosocial
 - taking evolution where we want it to go

- Can we use RFT to show changes to verbal behaviour in adolescence?
- And how this might contribute to the development of the self

Resources

- www.actforadolescents.com (a work in progress - revisit occasionally!)
- Get out of Your Mind and Into Your life (about \$12 on amazon)
- New practitioner book on the way (end 2014)
- Contact me louisehayes@me.com
 - (prompt me if I don't reply)

Context



Function matter

