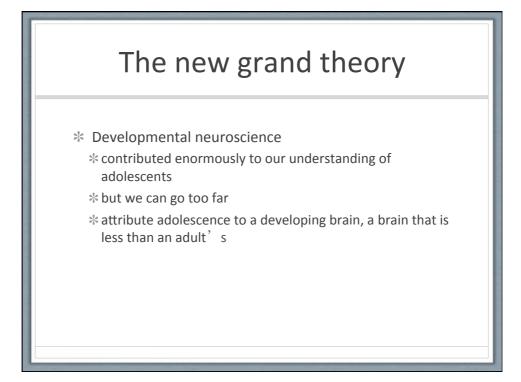


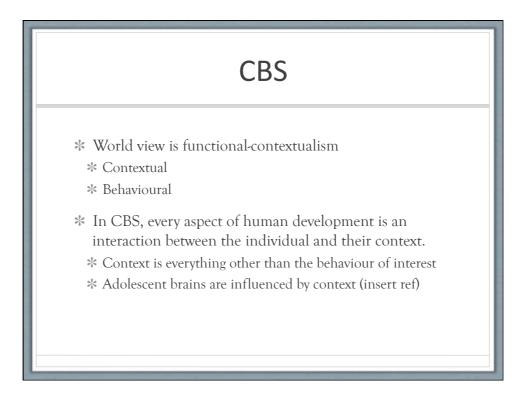
Adapting to Adolescence

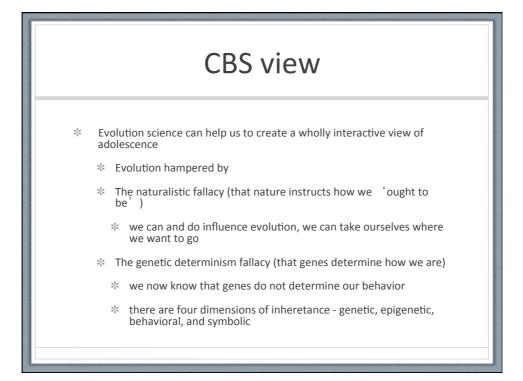
- Self'ing'
 - Self as Context
 - Kindness and Compassion
- Valuing
 - Valuing Self
 - Valuing Relationships
 - Valuing World

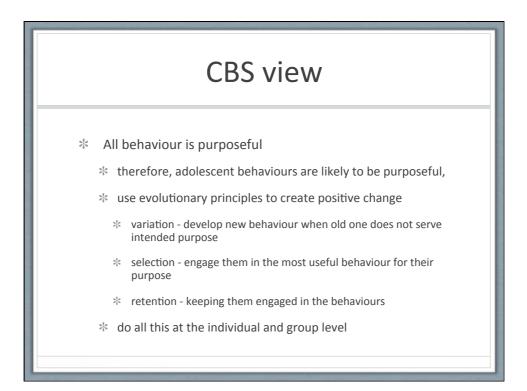
Where we have been

- * Grand theories (e.g. Hall's storm and stress, Erikson's identity development.....)
- * assume there was a normative development
- * and this would allow us to specify what is "normal" and what is "abnormal
- * world view mostly formism or organicism
- * They omitted the variability of individual development
- \ast $\;$ And the importance of interaction between individual and the environment.









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



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.



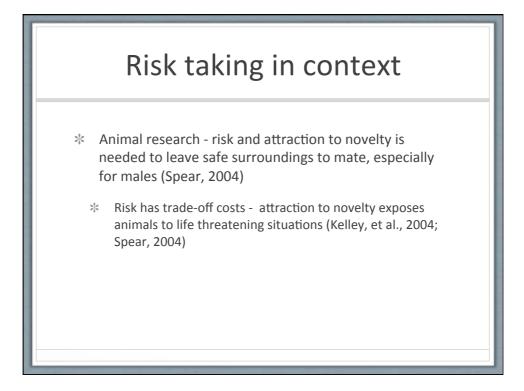
- * In just a few hundred years we have changed adolescence
 - * Now lasts 10 years,
 - * They spend more time than ever with peers, rather than adults
 - * % of children with one parent?
 - * Most of their adolescence is spent with people 12-18 months in age range
 - * Families are smaller and more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

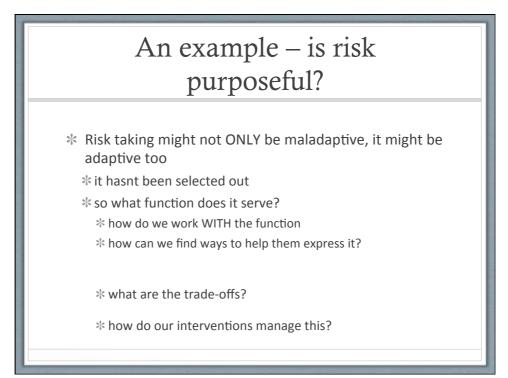
- * Non-human animal studies
- * Adolescent animal behaviours include: risk taking, sensation seeking, and a preference for novelty (Spear, 2004)
 - * For example, three age groups of mice were introduced to an elevated maze that had no protective walls and a risk of falling (Laviola, Macri , Morley-Fletcher,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





Risk today

- * We have risk that doesnt 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 selfadministration 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.





Three Ways We Process Information

- Pairing Stimuli (aka Classical Conditioning)
- Feedback (aka Operant Conditioning)
- Symbolically (aka Rule Governed Behaviour)

Classical

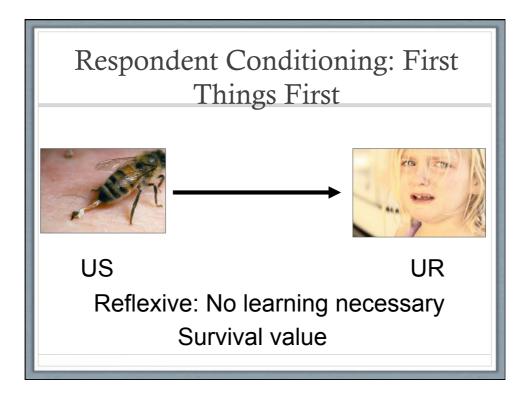
- Explanation:
- Information Domain: Direct Experience (AKA 'the' world)
- What you see in the history of a person classically conditioned
 - They can sense the stimuli
 - They value (biologically) the outcome

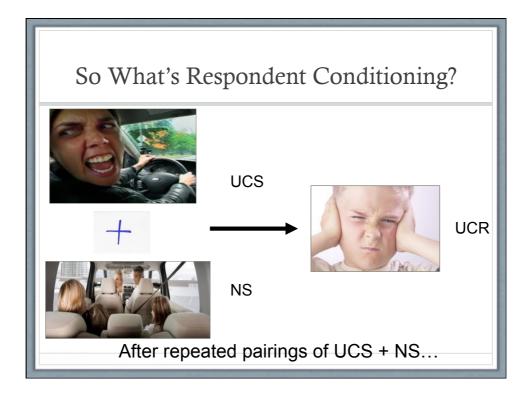
THE FIRST FC UNITS: PAVLOV

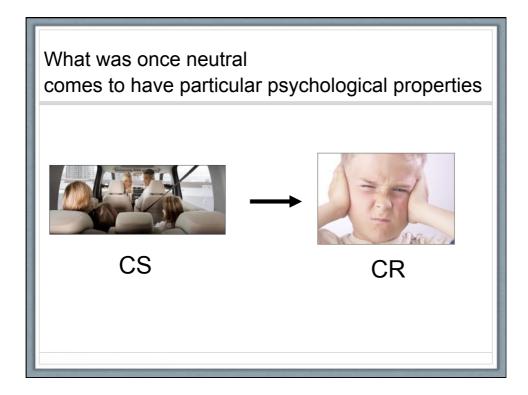
- Cause can be found outside the organism
- In 1901 a Russian Physiologist Ivor Pavlov noticed that if he rang a bell his dogs salivated....
 - US -> UR UNPREDICTABLE -> ANXIETY

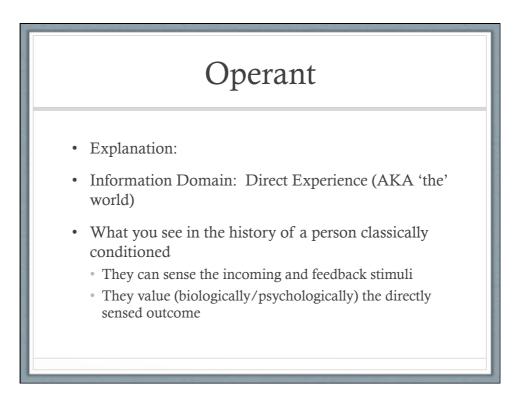
CS + US -> UR DAD + UNPREDICTABLE -> ANXIETY

CS -> CR DAD-> ANXIETY



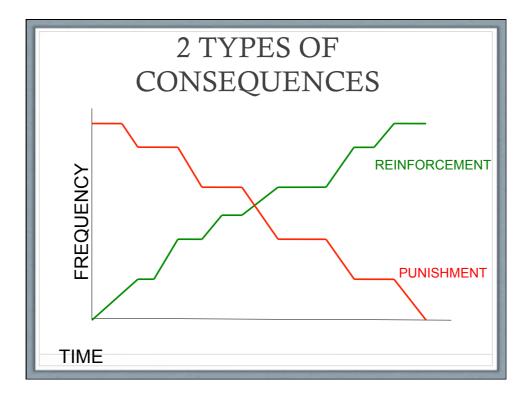


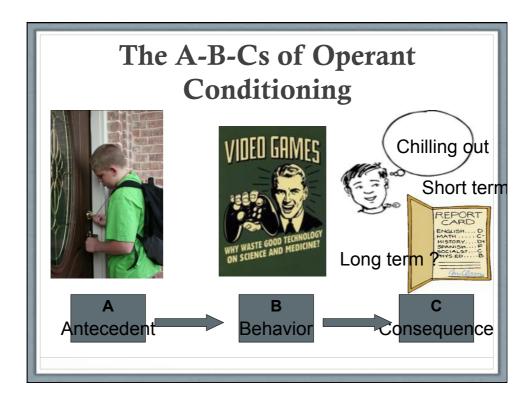




EXAMPLES: BREAKING BEHAVIOUR INTO ABC' S

| A | В | С |
|---|---------------------------------|----------------|
| HEAR SOMEONE SAY "HI" | SAY HI BACK | SEE THEM SMILE |
| MAN POINTS IN THE AIR | FOLLOW HIS POINT | SEE A PLANE |
| TEACHER SAYS "DO THIS" AND CLAPS HANDS | CLAP YOUR HAND | GET A STICKER |
| ON THE PAGE IS WRITTEN '5+4' | 'و' YOU WRITE | GET A TICK |
| THERAPIST LOOKS AT A CUP | PICK UP THE CUP SHE LOOKS AT | FIND A LOLLY! |

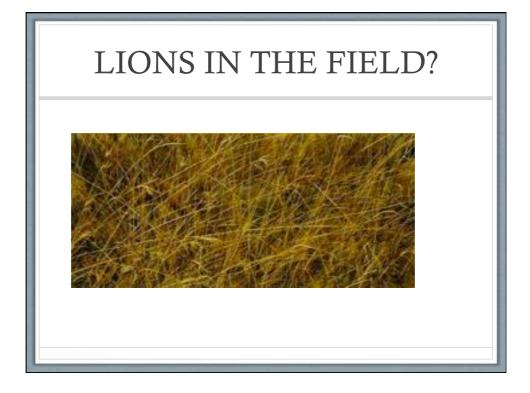




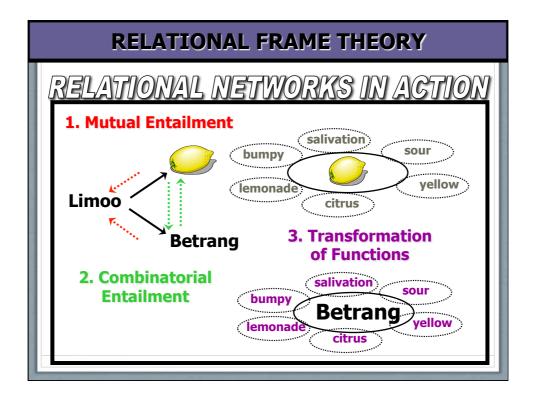
The Action/Learning Space: Experiential

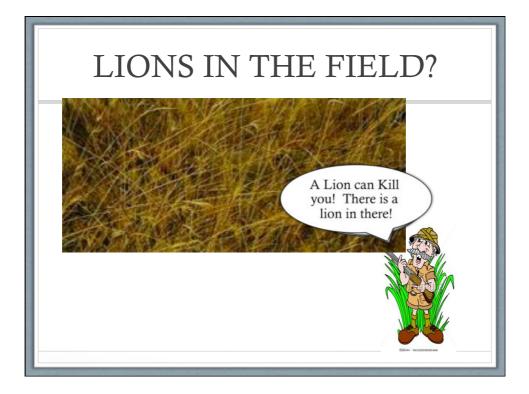
The Lions in the Field

- Classically conditioned (long grass paired with lions)
- Drawback = you needed to HAVE these experiences/near misses
- Operant (running into long grass has been punished)
 - Drawback = you needed to have had run into long grass.... AND BEEN PUNISHED!



Explanation: Where stimuli are presented to us that influence us through relational/symbolic networks. No direct experience is needed to be altered by these stimuli. Information Domain: Symbolic Community (AKA 'Us') What you see in the history of a person's RGB They can sense the incoming stimuli (a lot of them) They value the source of the symbols (eg gestures, words) The symbols in a frame with other symbols (ie what they can 'understand')





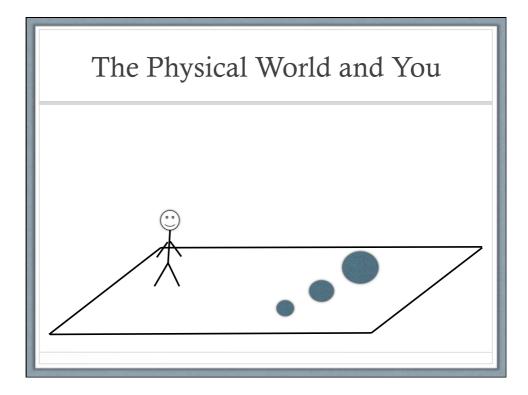
SUMMARY

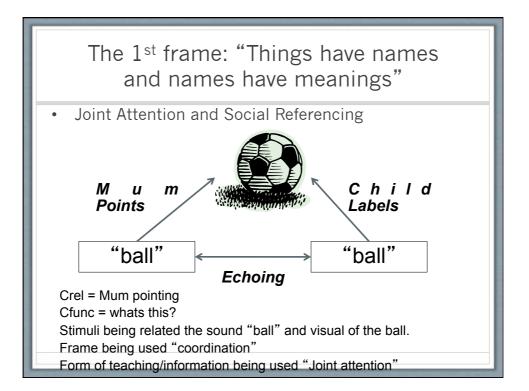
- We dance with our world as context interacts with our history and biology to shape and evolve on going responses and learning.
- There are three processes we interact with
 - Classical
 - Operant
 - Symbolic
- The first two are accurate and give precise adaptive information.
- The latter is fast and allows for enormous complexity in learning. The adaptive value may not be accurate though.

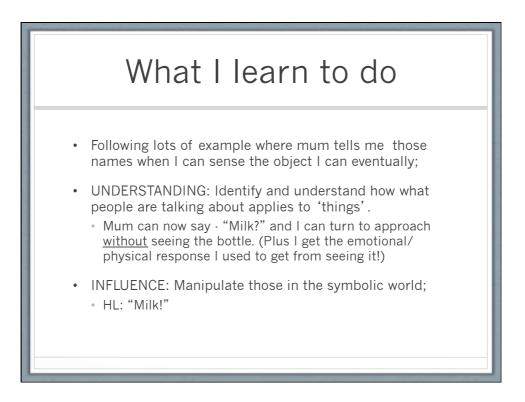
Building our Symbolic World and Self

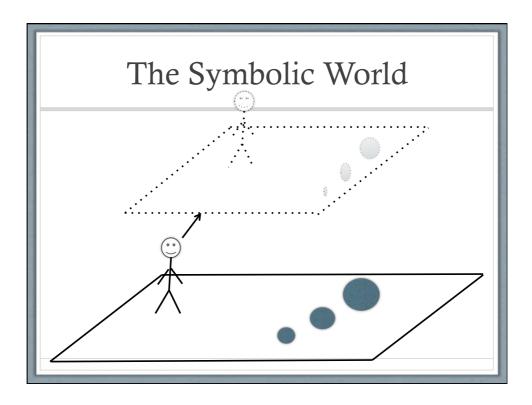
How Symbolic Processes Build

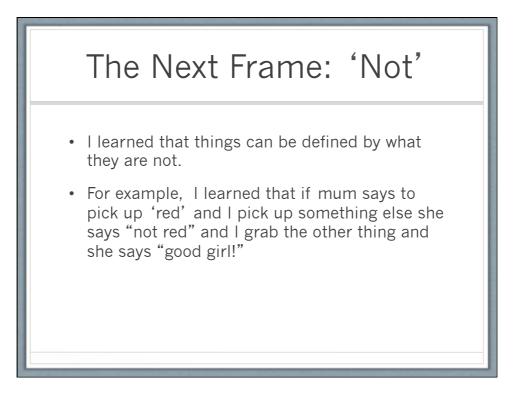
- Symbolic processes build upon one another.
- From basic frames we learn more advanced one.
- As they build we get increasingly more advanced symbolic 'worlds' that give us enormous prediction and influence over future events.

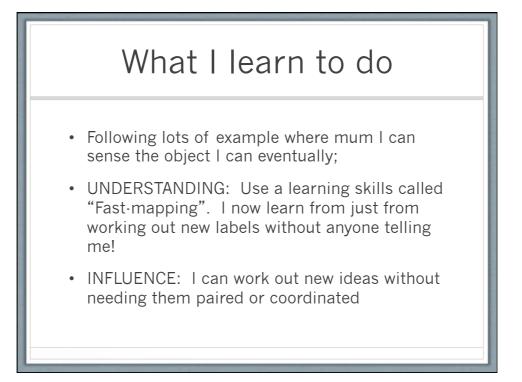


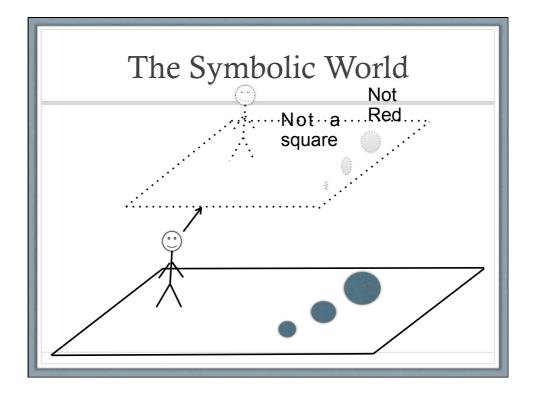


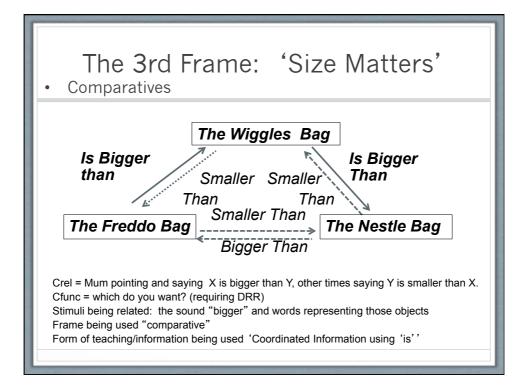


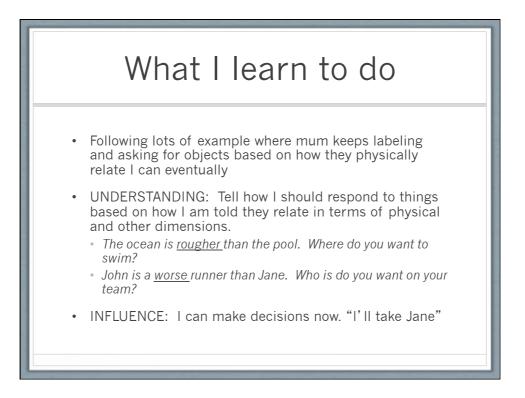


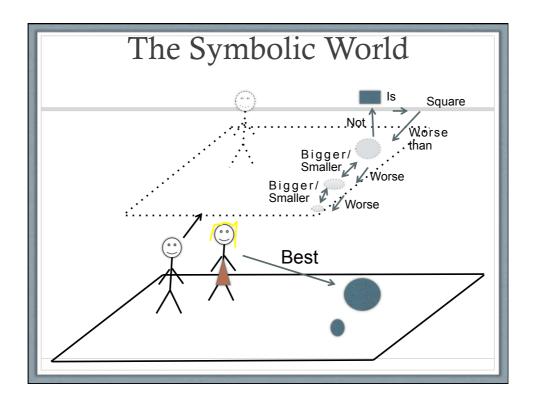


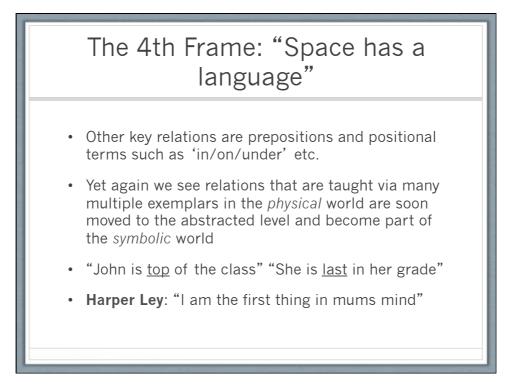






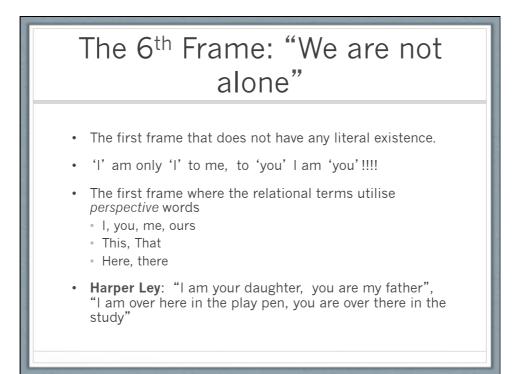


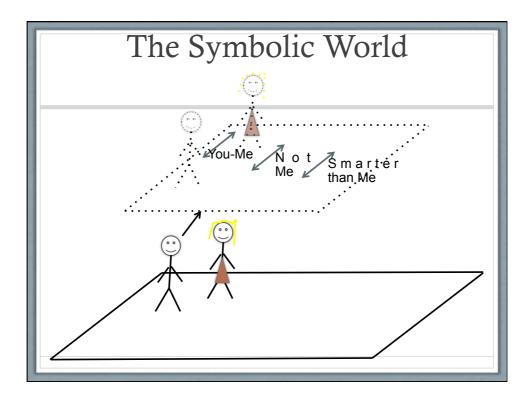




The 5th Frame: "The world of groups"

- Things are grouped to help us organise knowledge.
- This is great for academic and society. For example; we talk about animals, plants, fruit and vegetables and how they relate in arbitrary ways.
- By classifying we can respond differently to a stimuli based on how they relate.
- **Harper Ley**: Girls who have dads are called "daughters' Men who have daughters are called 'dads'.



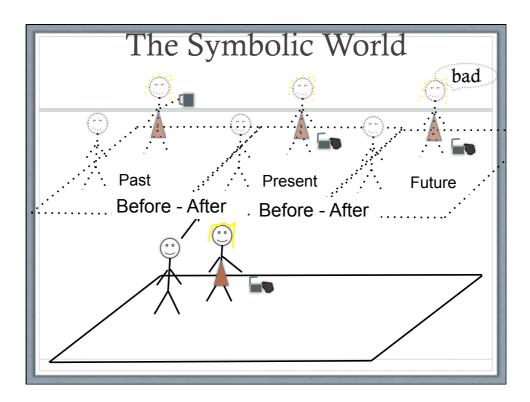


Famous Study: RFT takes on Borat's Cousin!

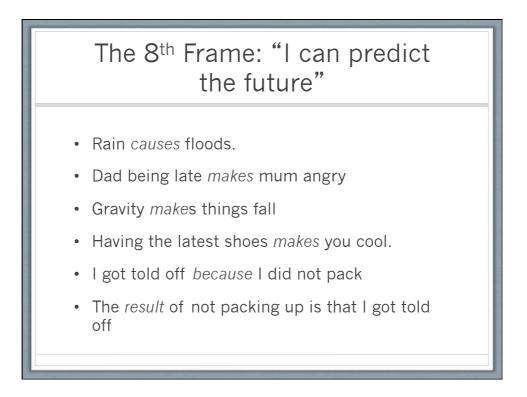
- Baron Cohen showed us that ASD children regularly fail Theory of Mind Tasks.
- When we examine those task a person must be able to use the following frames and Crels;
 - I-YOU
 - HERE-THERE
 - NOW-THEN
- Example Study (Rehfeldt, Dillen, Ziomek & Kowalchuk, 2007)

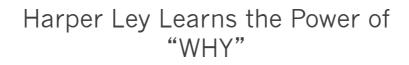
The 7th Frame: "Time is a new playground"

- Time does not exist.
- It is a concept that we learn to explain to each other and use.
- We have time 'anchors' like breakfast, night time or 5 0' clock.
- We navigate around them with relational terms for time.
 - "After school we are going to the shops"
 - Therefore, before the shops we will be at school"

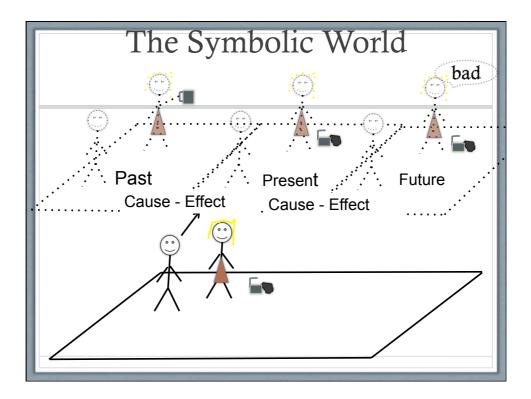






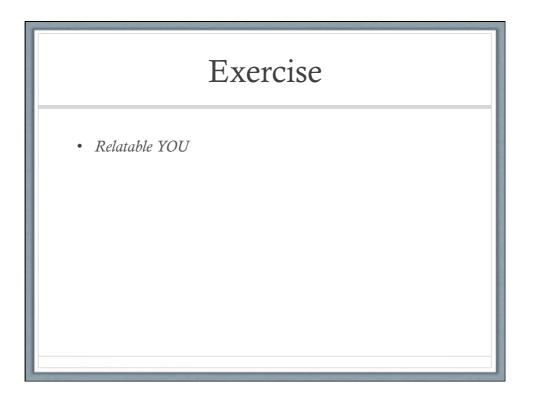


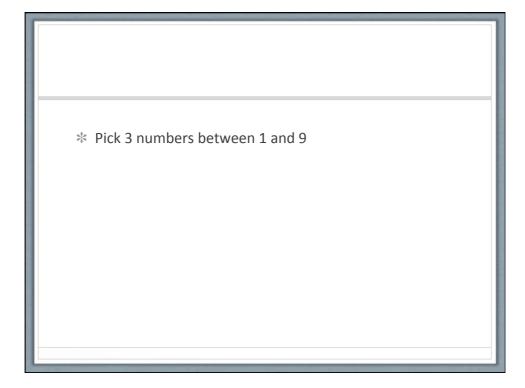
- **Harper-Ley:** "Now I can work out how changing one event will change another *without* ever experimenting! Learning from experience is for dummies stuck in the 2nd world"
- Harper-Ley: "I can even explain why I do things. For example grandma tells me that I have tantrums because I get angry. So now I work hard not to get angry"





- The frames have built upon each other to have explosive potential.
- We literally 'lose control' of the relations eliciting relations.
- A small comment can literally explode ideas exponentially and change how you perceive the context right in front of you...

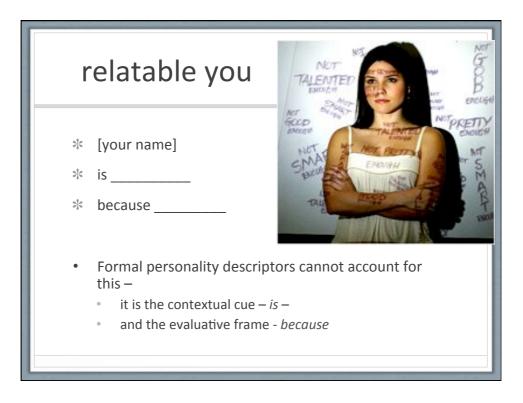


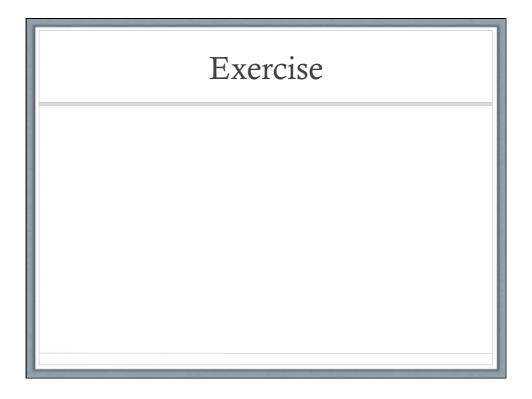


| . no good | 1. ugly | 1. weak |
|-------------|---|-----------------|
| . unliked | 2. disappointment | 2. unliked |
| . unpopular | 3. disgusting | 3. unloved |
| . imposter | 4. broken | 4. imposter |
| 5. ordinary | 5. has something wrong with her/him | 5. ordinary |
| i. bad | 6. useless | 6. bad |
| . unhelpful | 7. boring | 7. not worth it |
| 3. dumb | 8. invisible | 8. dumb |
|). stupid | 9. doesn't belong | 9. stupid |

| Complete this sentence [your name] is because | |
|--|--|

| 1. relaxed | 1. intelligent | 1. serious |
|------------------|----------------|---------------|
| 2. attractive | 2. kind | 2. shy |
| 3. carefree | 3. considerate | 3. caring |
| 4. compassionate | 4. optimistic | 4. strong |
| 5. patient | 5. organized | 5. helpful |
| 6. energetic | 6. adventurous | 6. thoughtful |
| 7. funny | 7. ordinary | 7. generous |
| 3. happy | 8. clever | 8. creative |
| 9. honest | 9. sensible | 9. wise |



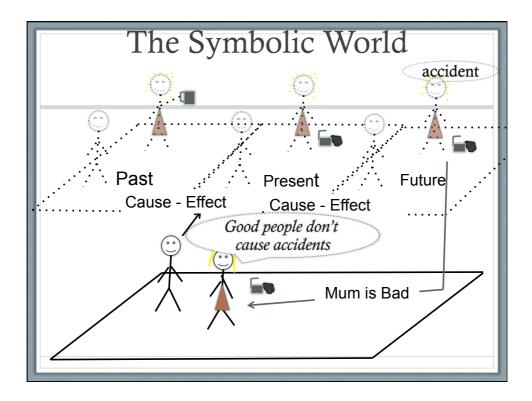


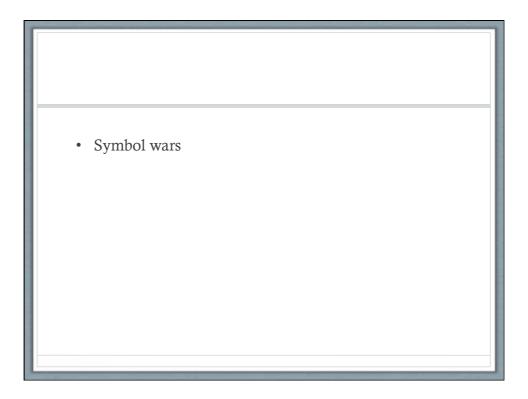
Symbolic Applications: RGB

- Frames are 'carried' across from speaker to listener in the form of rules.
- There are 3 types;
 - Pliance: Where one is reinforced by the authority figure for following the rule
 - Tracking: Where one is reinforced by the consequence of following the rule.
 - Augmentals: Where rules alter the value of reinforcement.

Rule Governed Behaviour

- Can make us 'contingency insensitive'
- Ply's make us inflexible
- Tracks make as adaptive
- Augmentals allow us to express value statements that continue to alter the value of stimuli

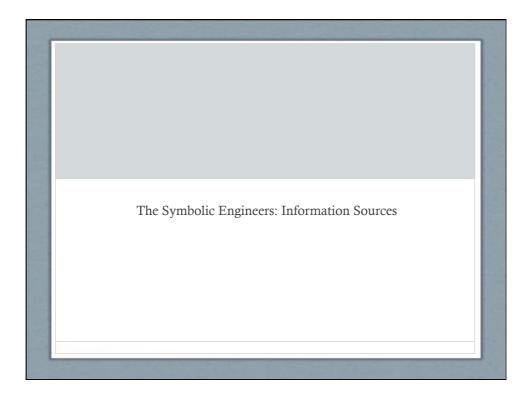


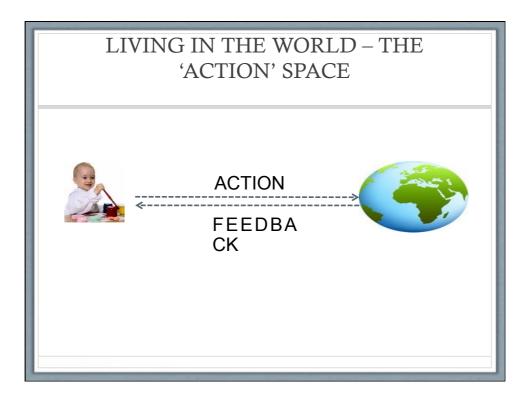


HANK GREEN – WE ARE ALL SCARED YOU TUBE CLIP

YOU

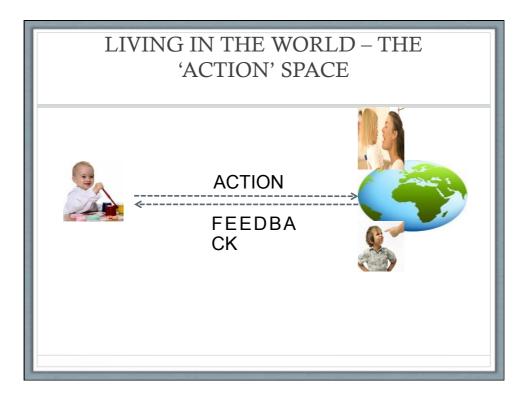
- You create you
- Other people create you (inside their heads)
- Terrifying

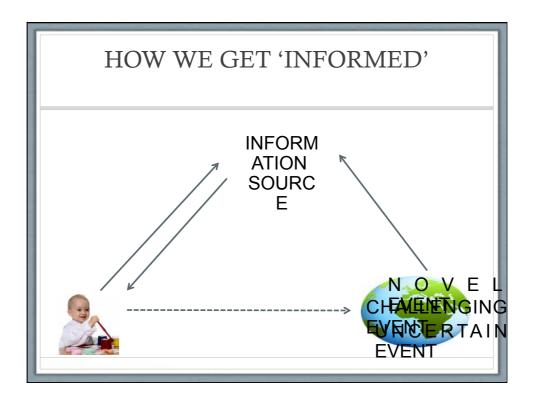




Learning through the Action Space

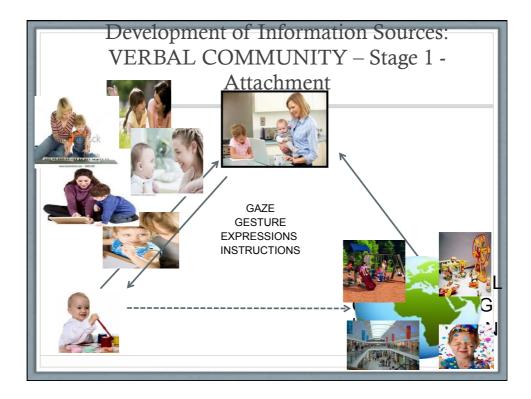
- Uses Classical and Operant conditioning
- VERY accurate
- Incredibly slow.
- Lacks precision
- Can not give sophisticated feedback for planning.
- Dangerous.....
- We get around these limitations by also getting informed by out 'verbal' community

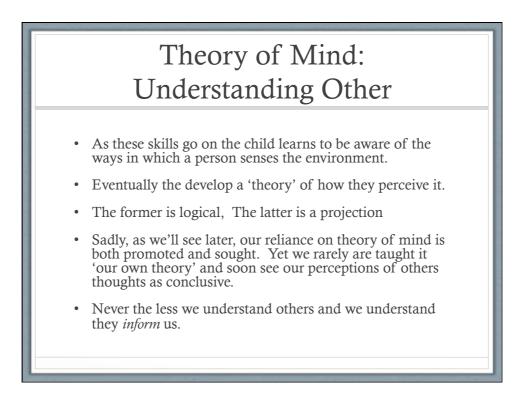




UNCERTAIN SITUATION STUDIES

- Common test for Attachment
- Common test for ASD
- Social referencing and Joint Attention pivotal for cooperative relations





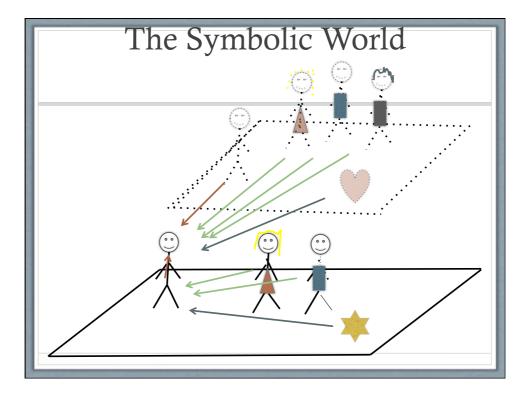
1st Information Source: Mother

- Mother (attachment)
 Caregivers
- Classically Conditioned (paired with Milk/Touch)
- Operant Conditioned (paired with Social Referencing)
- Symbolically Conditioned
 - 'Mother' coordinated with 'safe' 'knowing' 'authoritative'
 - 'Mother' comparative 'more than'
 - 'Mother' hierarchy including peer, strangers, teachers is top (circle of security)

Life Long Information Source: Self

- People start to conceptualise themselves as a self.
 - Speaker as Listener
 - 'I think'
 - 'I believe''I know'
 - 1 1110 17
 - People start to talk to themselves; • "Why dows she always give me the brush off?"
- People draw conclusions and make their own rules.
 "She hates men. That's why she does not like me. I will never talk to her again."
- People become their own information source....!
- Will probably be like the person they found credible (if they are listening to them'selves')





Criteria for being an Information Source

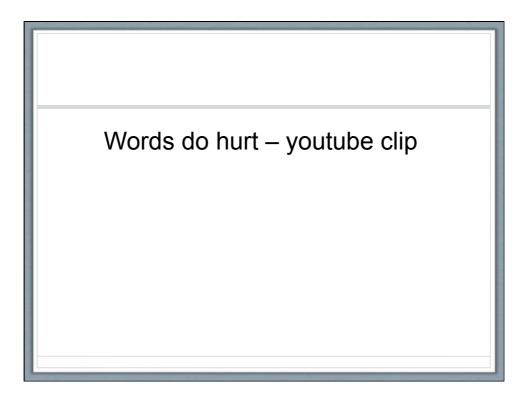
• Must be Credible

- By symbols (ie you represent an 'expert' etc)
- By experience (ie you have been right in the past)
- Cues of credibility
 - Symbols
 - Membership (expert), Comparatives (knows more then), Causal (has the power to make it happen)
 - Experience (could be symbolic)
 - Tone of voice, expression on face, etc (good social referencing cues basically)



- Function of learning is to be better able to predict and control/influence our world as we perceive it.
- If you facilitate (experience learning) or represent (symbolic learning) this goal you become *credible*.
 - *Turn left at the kitchen and you will see the toilets... (vs Max Singapore experiment)*
 - If you want children with Asperger's Disorder to look at you then every time the glance up you should glance down. The slowly move your eyes up to their as they more confidently initiate.
 - I have been doing this for 15 years. I am an expert.





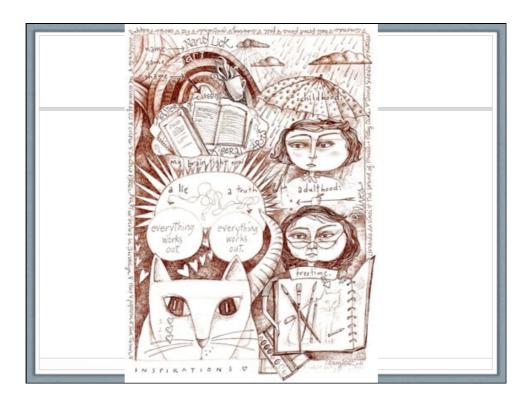
how we use verbal interactions with others?

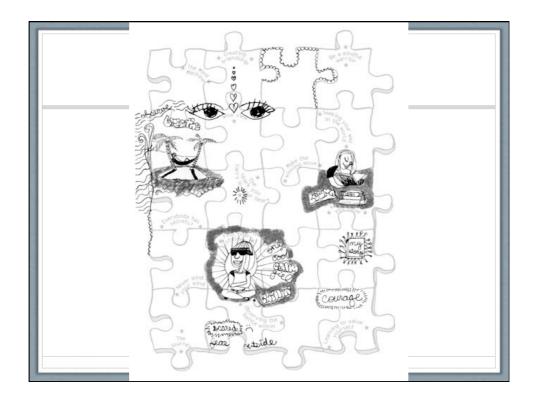
- •What relations might she have derived?
 - •did she apply them to her 'self'
 - •consider repetitions
 - •her response to aversives

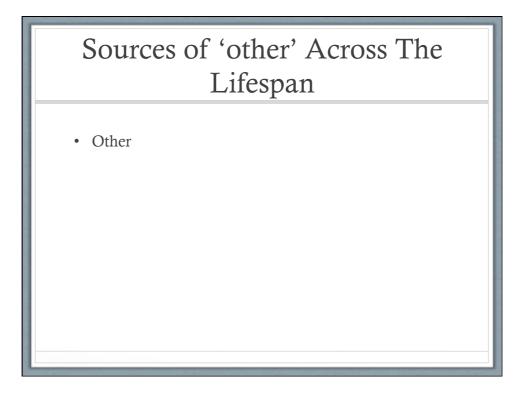
how we use verbal interactions with others?

What about after the video was made?
news, facebook, blog, now thousands of copycats
effect of moving toward rather than away from difficulties

Exercise: • Discuss how you went through these streams

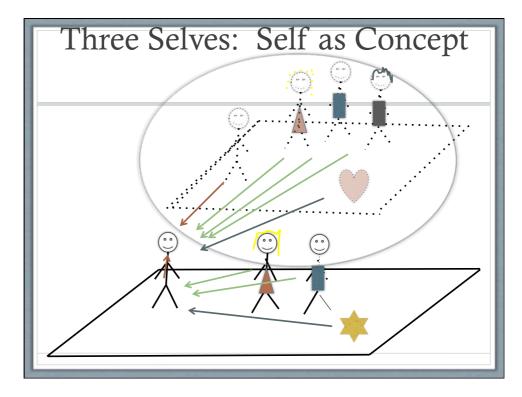


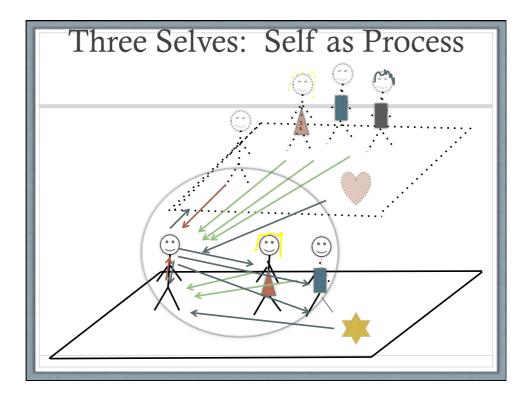


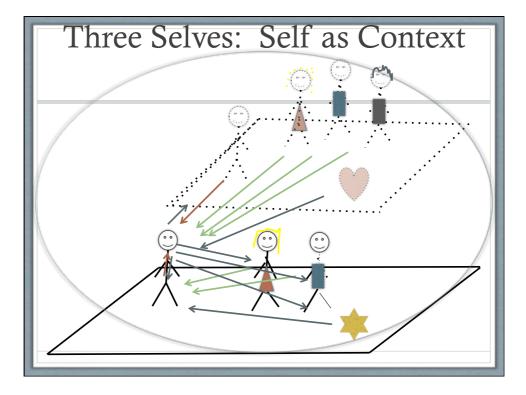


Sources of 'Self' Across The Lifespan

- As we get older hopefully we start to realise we have many 'selves'
- In ACT we know these as the 'three selves'
- Knowing the 'selves' allows us to alter how our 'self' information source can effect us or lock us in to infllexible thinking.







Engineers of our Symbolic Worlds

World – Carries symbols that grow more sophisticated over aging (from cool school bag to car to garden)

- Other Changes with credibility across lifespan. Mum is everything. Then she shares with teachers. Then they are dumped and peer group are all. Then they get trumped by boss and thos holding your career.
- Self (speaker as listener) Knows self physically, then the story/concept of self, the sees how they shape their perceptions from their experiences and own thinking. Eventually noticing themselves noticing and see they are 'all of it' and swing between all selves.

Three selves

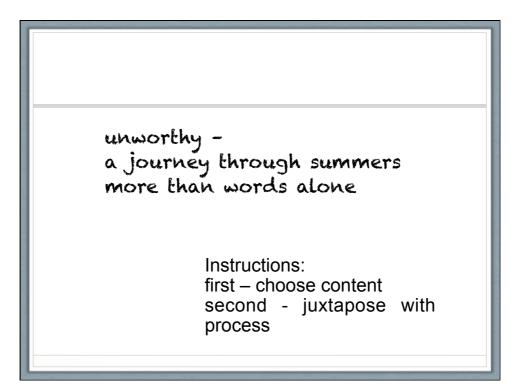
Writing - content, process, context

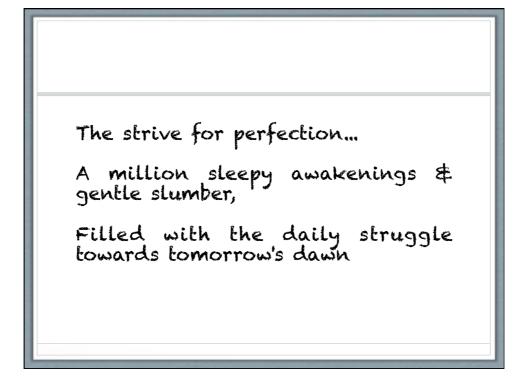
Haiku style – use metaphor

1 – choose content, symbols of self - "I am"

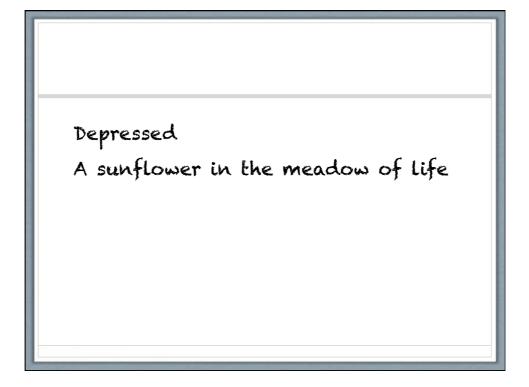
- 2 –process, in the moment noticing
- 3 use metaphor to make a contextual self

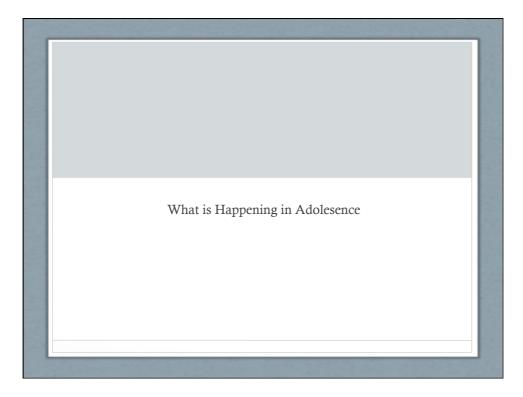
```
"Not Darin"
Listening, attentive audience,
laughing, feeling connected,
loosening
There is no 'Darin' - the reality of
the yogi
```



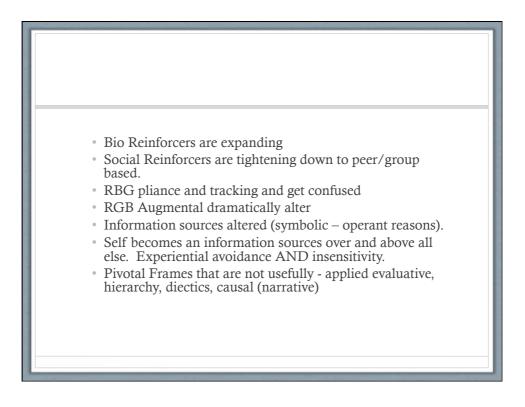


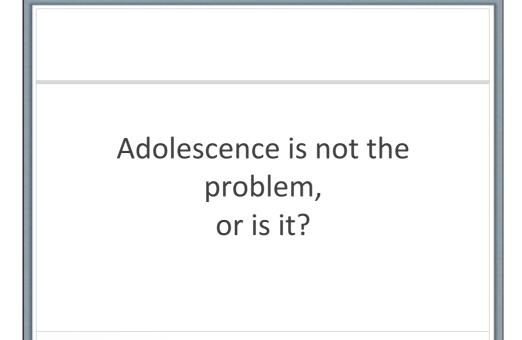
| • Cry ~ A river flowing always |
|-----------------------------------|
| to the sea: Swim |
| |









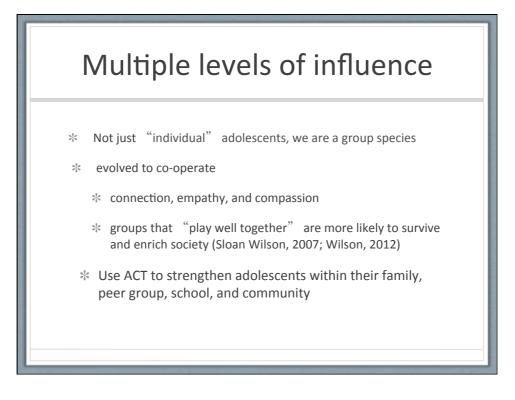




- E. O. Wilson argues that humans are a eusocial species
 - we live in groups that go across generations
 - we support and cooperate with each other (Wilson, 2012)
- The most successful species on the planet are eusocial
 - humans
 - and insects

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.



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 doesnt 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

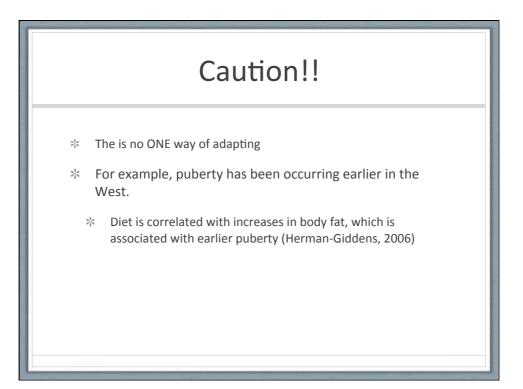
Aggression and prosocial behavior may serve the same function –
 increase an individual's status and power

* Our role, create contexts

 $\ast~$ 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!

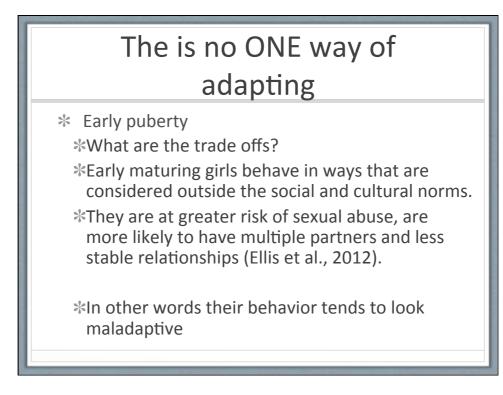


Caution!

- * The 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?

*Caution ourselves not to over interpret



What does all this mean for ACT?

- * See our interventions contextually and functionally
- * Context must support our interventions
 - \ast 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

