

‘This too shall pass’

Reactive aggression and emotion regulation in adolescence



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Reactive Aggression

- Aggression in response to threat, frustration or provocation, e.g. 'damaged things because you felt mad' ([Raine et al., 2006](#)).
- Differs from proactive aggression, which is aggression in pursuit of a goal, e.g. 'to show who was on top'.
- Most common type of aggression in young people with conduct disorder
- Associated with poor emotion regulation ([Eisenberg et al., 2010](#))

Reactive

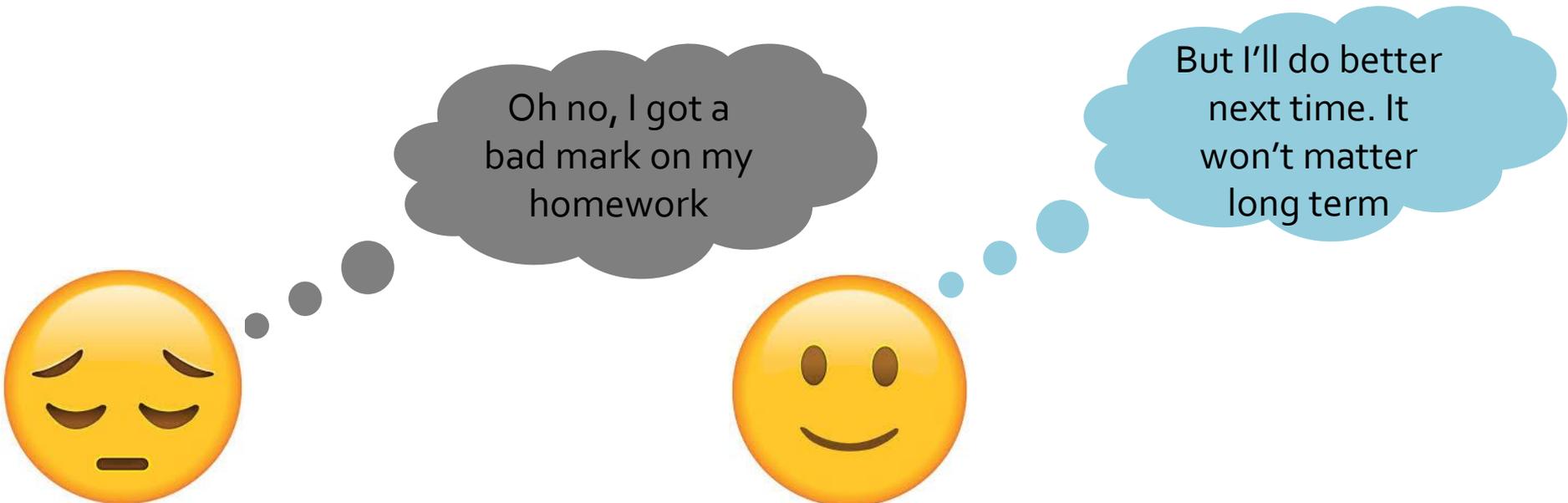


Proactive



Emotion Regulation

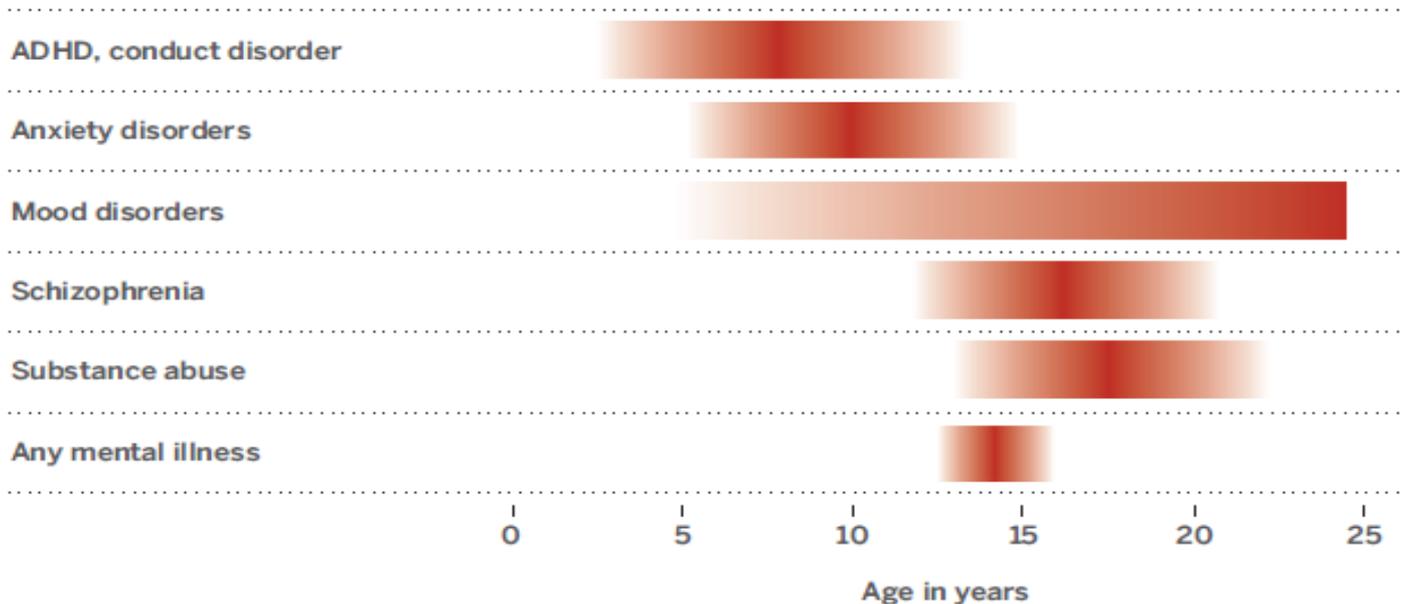
- Emotion regulation (ER) refers to the **monitoring, evaluation** and **modifying** of emotional reactions in order to accomplish goals (Thompson, 1994).
- Focus here on **deliberate** attempts to modulate emotion, such as **cognitive reappraisal**: changing one's interpretation of an event (Ochsner & Gross, 2005).



Adolescence, Emotion Regulation and Mental Health

Emergence and peak in mental disorders during adolescence

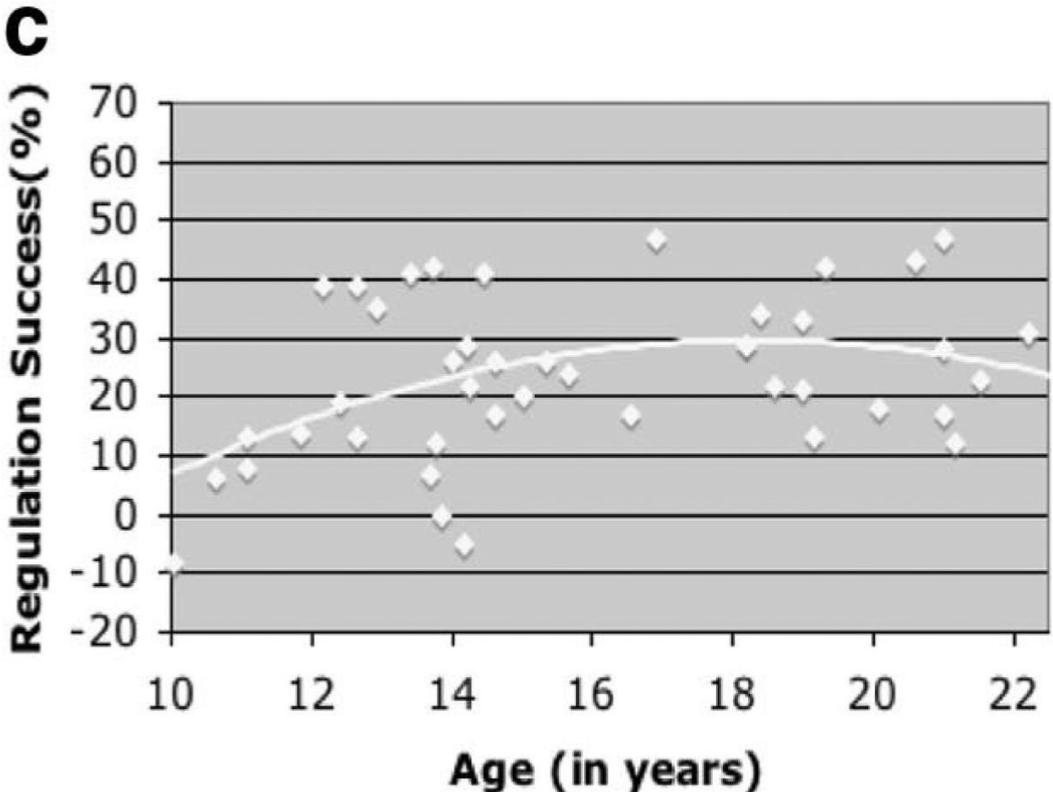
One in five adolescents have a mental illness that will persist into adulthood



- Adolescence is a period of physical, psychological and social transition between childhood and adulthood (Spear, 2000).
- Key time for the onset of internalising and externalising disorders **associated with poor emotion regulation** (e.g. depression, anxiety, **conduct disorder**) (Paus, 2008)
- Reactive aggression peaks in the adolescent years (Moffitt, 1993)

Does Emotion Regulation Develop During Adolescence?

“Imagine yourself standing close” vs. “Imagine yourself standing far away”



What do we know so far?

- Poor emotional control is a hallmark of reactive aggressive behaviour
- Adolescence is a key time for the onset of reactive aggressive behaviour
- Some evidence that emotion regulation develops in adolescence, but most research has used fairly 'artificial' stimuli
- Surprisingly few studies have looked at the specific ways in which emotional control may be compromised in those showing high reactive aggression or anger
- Virtually none have looked at adolescents



The Present Study

- Cognitive reappraisal (changing the meaning of an emotional stimulus) is known to be effective, but it's a very broad term.
- Hard to know what people are doing when we ask them to do it
- Here we focus in on 'temporal distancing' (e.g. 'this will not affect me in 5 years' time')



Let's try it now...

Step 1: Think of something that's been annoying you recently.

Step 2: Think about how you are likely to feel about this during the summer break. Take a few moments to actually imagine yourself in the future.

Step 3: How do you feel about it now?

The Present Study

- Temporal distancing reduces distress in relation to a personal life event in adults [Bruehlman-Senecal & Ayduk \(2015\)](#)
- Those using the strategy in daily life reported greater wellbeing
- We developed a better controlled experimental task looking at reactions to lots of different stressful events instead of just one.
- We used stressful events relevant to adolescents/young adults, e.g. failing exams, embarrassing themselves in front of peers.
- We looked at a wide age range (ages 12-22)
- We looked at effects of self-reported reactive aggression in everyday life



Dr Saz Ahmed



Dr Leah Somerville

Temporal Distancing Task

Think of whether these situations would still affect you in the DISTANT future

10000 ms

You fail an important exam

7000 ms

How upset /anxious and stressed do you feel?

7000 ms each

How far into the future did you think?

7000 ms

Conditions:

Neutral

Read (Negative)

Near (Negative)

Far (Negative)

Time

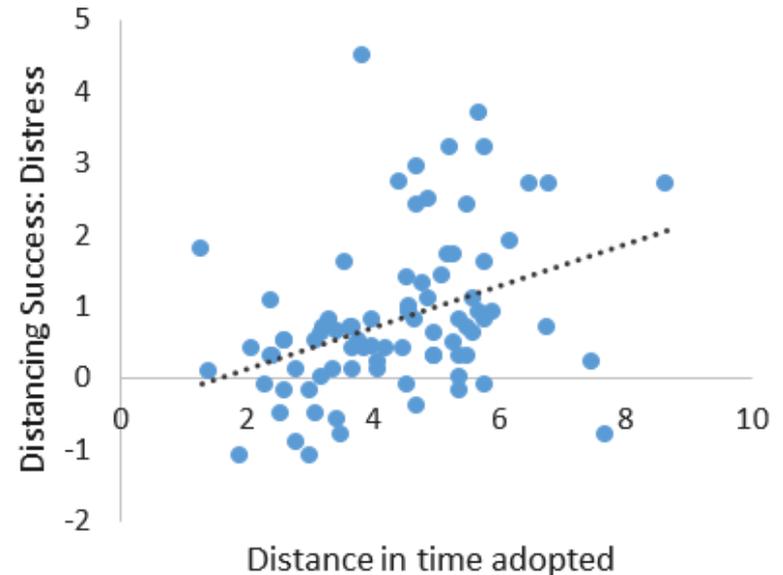
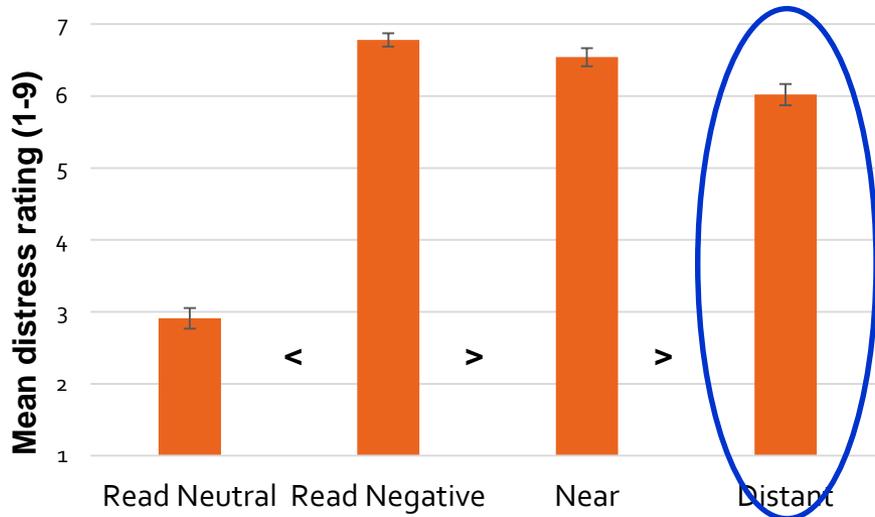
Negative conditions matched for valence, arousal, length of time judged to impact life, type of stressor and social content

Hypotheses

1. Distancing (**Far**) will be most effective relative, to both **Read** and **Near** conditions.
2. Efficacy will develop during adolescence, in line with:
 - Previous studies showing that emotion regulation develops at this time
 - Other studies showing adolescents are less good at representing the future
3. Those higher in reactive aggression would be less effective in using this strategy

Hypothesis 1: Overall Efficacy

Distress ratings



$r=.38, p<.001$

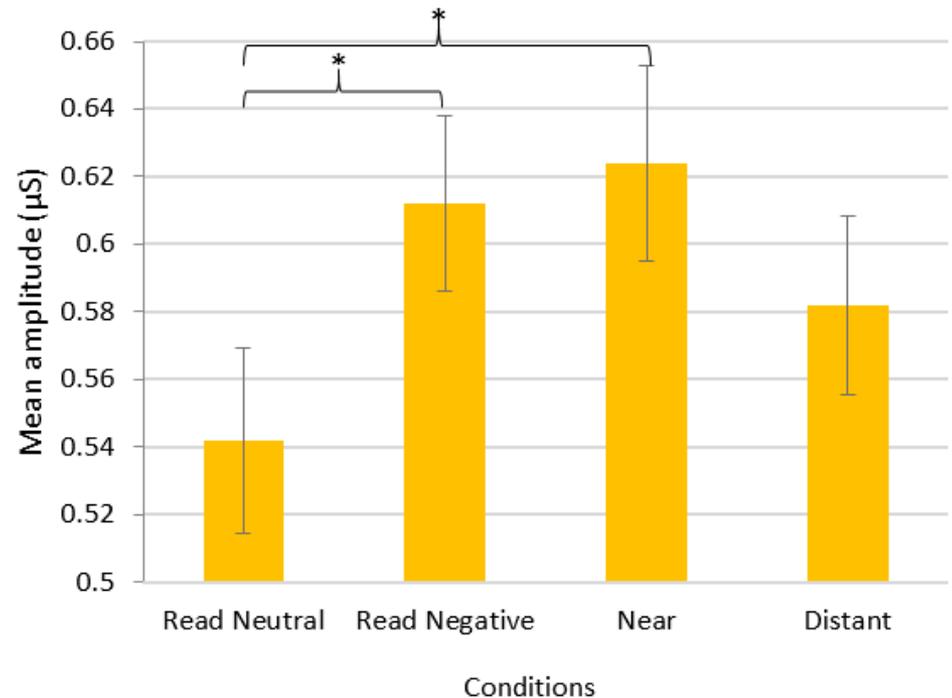
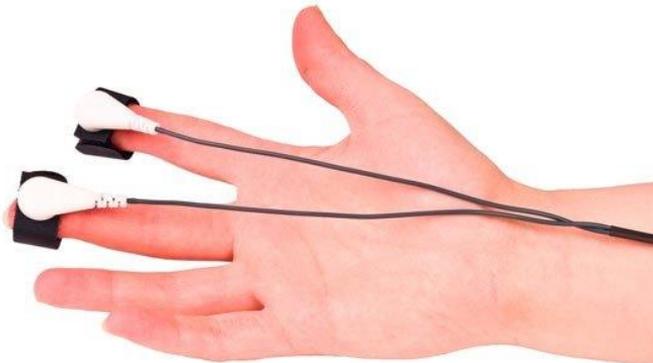
Distancing was effective as an emotion regulation strategy across all 83 participants aged 12-22

Distancing was more successful when participants projected themselves further ahead.

Hypothesis 1: Overall Efficacy

Skin Conductance Data

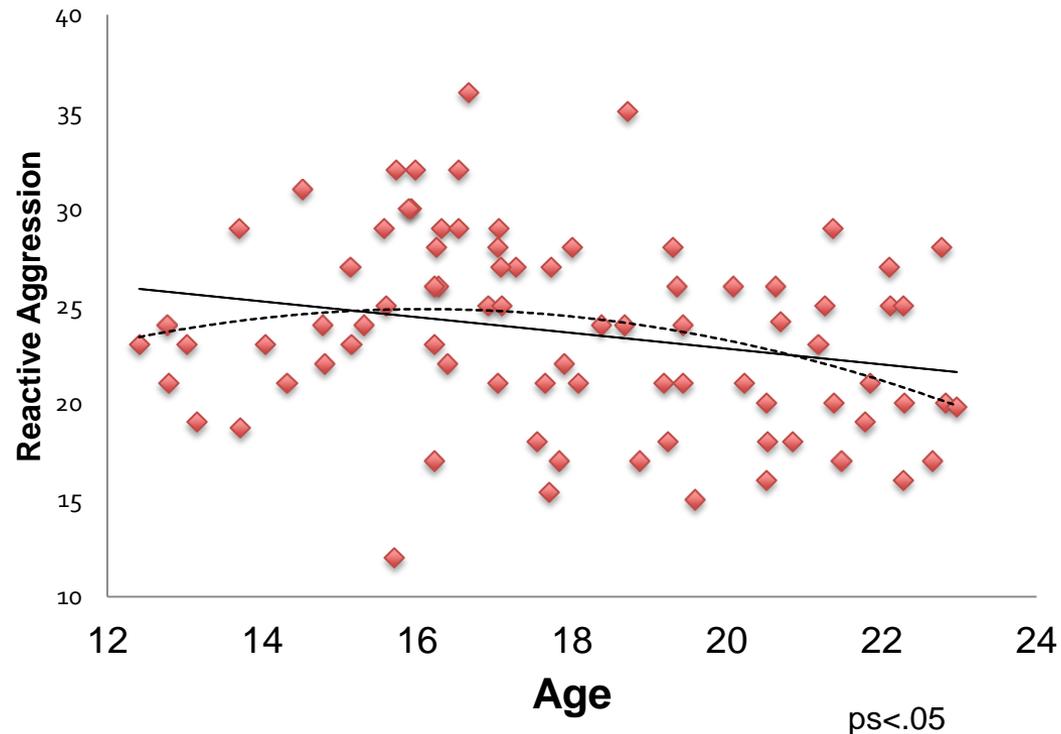
We also looked at a physiological measure of emotional response: more objective than self-report



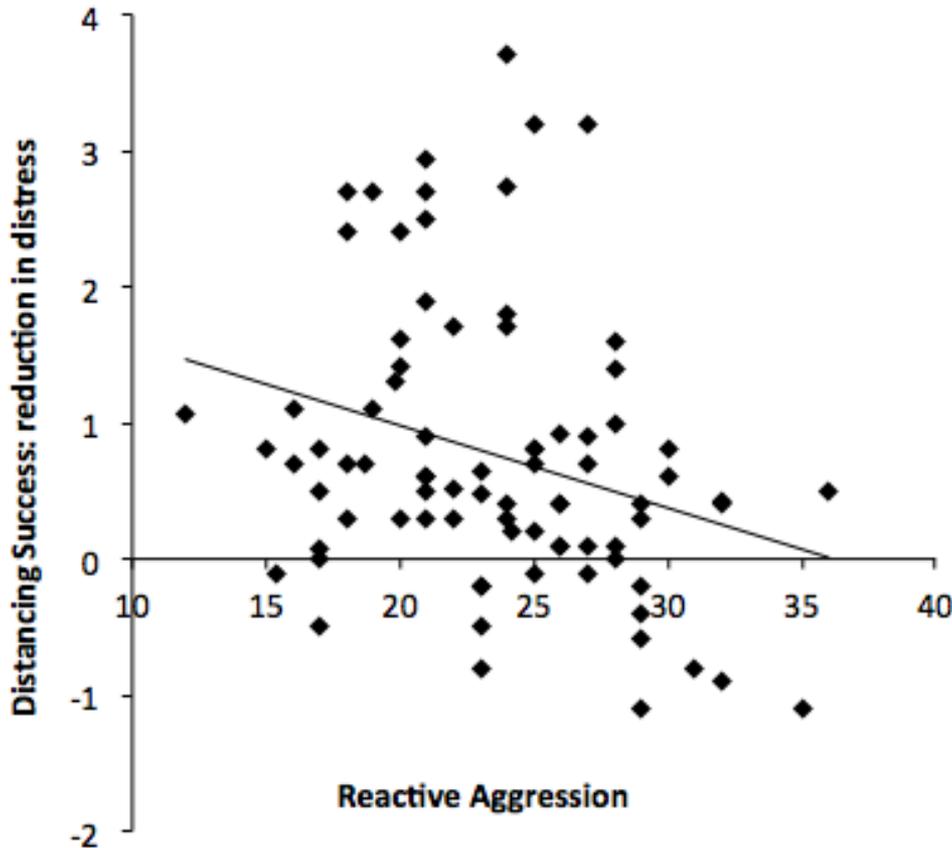
Partial evidence for distancing efficacy using this measure. But skin conductance data tend to be 'noisy'

Hypothesis 2: Development

- Surprisingly, the strategy was equally effective for all participants: no evidence of development during adolescence
- Worth noting that reactive aggression levels broadly decreased with age, with a peak in mid-adolescence (15.4 years), in line with previous studies.

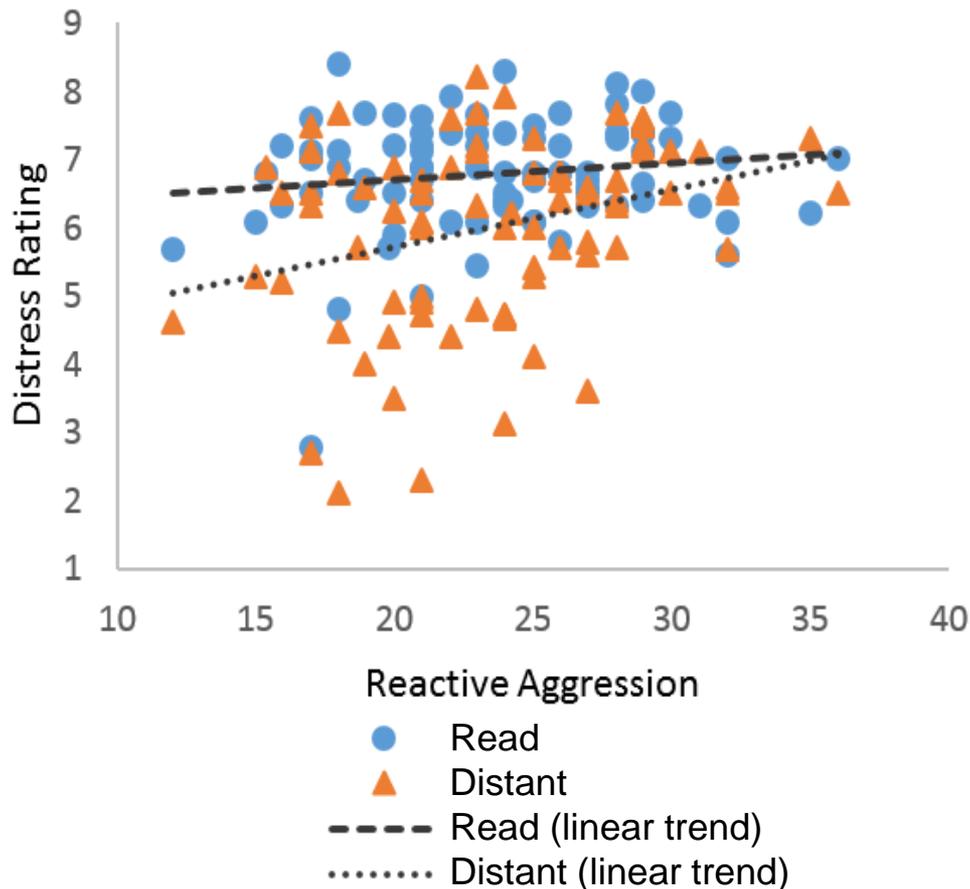


Hypothesis 3: Reactive aggression



- Participants higher in reactive aggression were **less successful** in using temporal distancing to reduce distress.
- Note, the '0' line means no advantage to using temporal distancing compared with just reacting naturally ('Read').
- Further analysis showed that those higher in reactive aggression also projected themselves less far into the future.

Hypothesis 3: Reactive aggression



- We looked more closely at distress ratings. Maybe those higher in reactive aggression also had a higher 'baseline' level of distress, i.e. during 'Read'.
- This could make it harder for them to then implement the instruction to regulate
- But no: when asked to react naturally during 'Read', levels of reactive aggression didn't relate to distress.
- The difficulty seemed **specific** to the emotion regulation instruction
- Our data suggest they were not able to **implement** the instruction

Take Home Messages

- Good news: temporal distancing is effective for adolescents and adults alike.
- However, this strategy was less effective for those higher in reactive aggression: aggression a more important factor than age.
- These individuals also projected themselves less far into the future.
- Need to take account of individual differences: no 'one-size fits all' approach to emotion regulation.
- Future directions: is it possible to improve temporal distancing through training? If so, would that in turn improve wellbeing and reactive aggressive behaviours?

This too shall pass.



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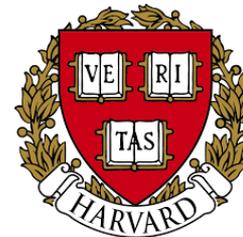
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