Exploring temporal distancing as an emotion regulation strategy across adolescence

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Background

- Adopting a distant- relative to a near-future perspective (e.g. “this will not matter in five years time”) when reflecting on emotionally distressing personal events reduces distress in adults (Bruehlman-Senecal & Ayduk, 2015).
- Adolescence is associated with poor emotion regulation (ER) abilities, especially for adolescents high in aggression (Hubbard et al., 2010).
- Although developmental research on other explicit ER strategies (e.g. reappraisal) exists, it is unknown whether the ability to effectively use ’temporal distancing’ as an ER strategy varies across adolescence.
- While aggression and anxiety have been associated with poorly regulated responses to emotional stimuli in adults (Mauss, et al., 2007; Mennin et al., 2005), no study has specifically looked at these variables in relation to temporal distancing.

Questions

1. Is temporal distancing an effective ER strategy (behaviourally & physiologically)?
2. Does the ability to effectively use the strategy vary from adolescence to adulthood?
3. Does the ability to effectively use the strategy vary across different levels of aggression?

Methods

- Eighty-three participants aged 12-22 (49 females) recruited from Harvard Summer School and the university participant database.
- Questionnaires: Reactive-Proactive Aggression Questionnaire (Raine et al., 2006) and State-Trait Anxiety Inventory (Spielberger et al., 1983).
- Skin conductance recorded using AcqKnowledge software (Biopac).

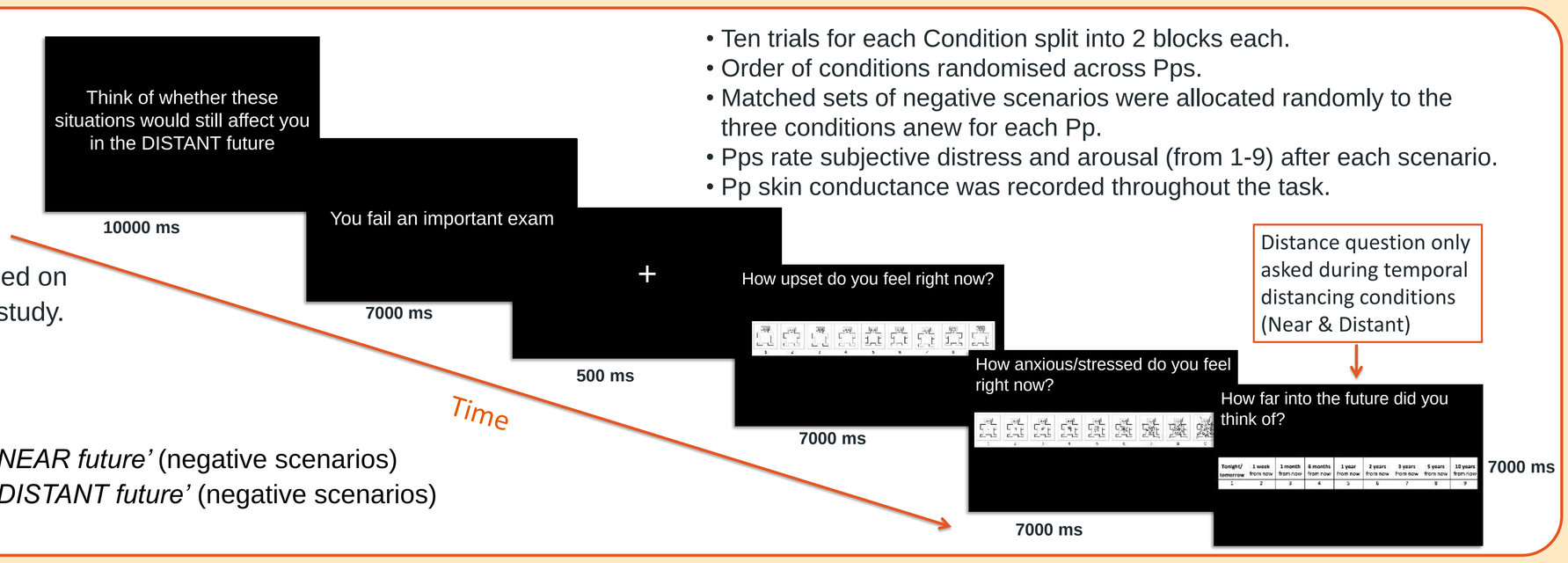
Experimental Task

Stimuli:

- Consisted of 10 neutral and 30 negative real-life-relevant situations (scenarios).
- Scenarios for the negative conditions were matched on average distress and arousal ratings from a pilot study.

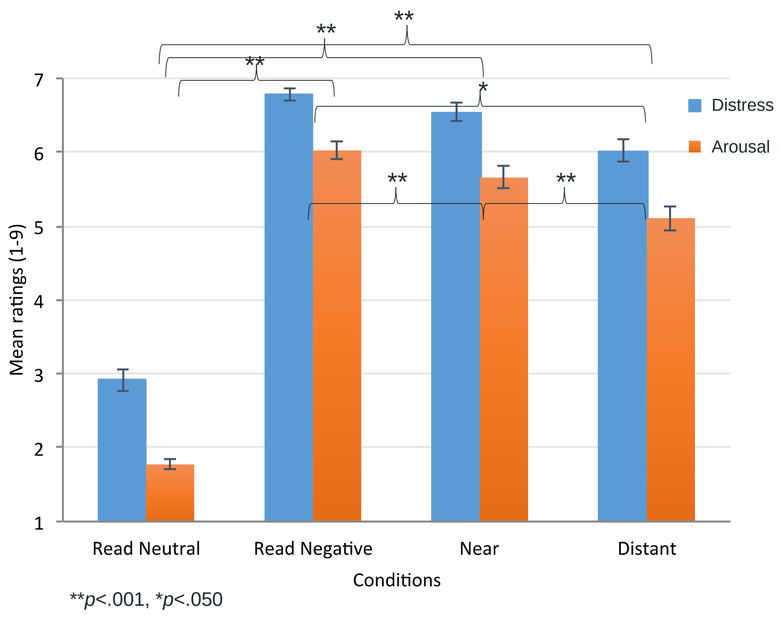
Conditions:

- *‘Read’* (passively reading neutral scenarios)
- *‘Read’* (passively reading negative scenarios)
- *‘Think of whether this would still affect you in the NEAR future’* (negative scenarios)
- *‘Think of whether this would still affect you in the DISTANT future’* (negative scenarios)



- Ten trials for each Condition split into 2 blocks each.
- Order of conditions randomised across Pps.
- Matched sets of negative scenarios were allocated randomly to the three conditions anew for each Pp.
- Pps rate subjective distress and arousal (from 1-9) after each scenario.
- Pp skin conductance was recorded throughout the task.

Behavioural Results

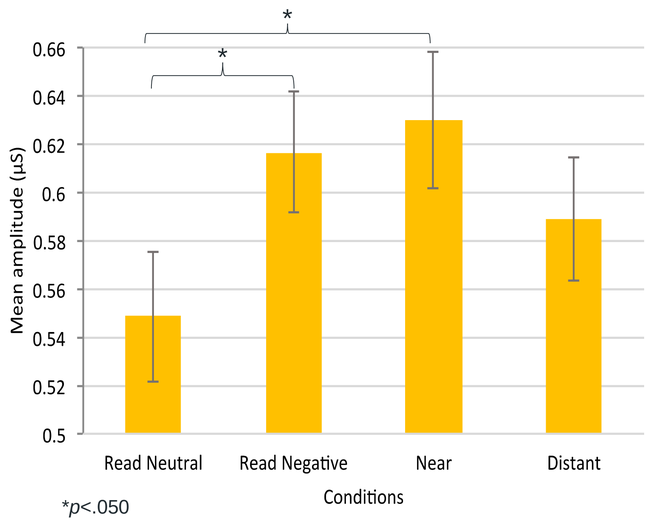


**p<.001, *p<.050

- **Main effect of Condition (p < .001).**
- All conditions were significantly different from each other.
- Negative conditions showed the pattern: Read Negative>Near>Distant
- Positive correlations between distancing success (read negative distress ratings – distant distress ratings /read negative) and distance in time adopted during distant condition (distress: r = .43, p < .001; arousal: r = .40, p < .001).

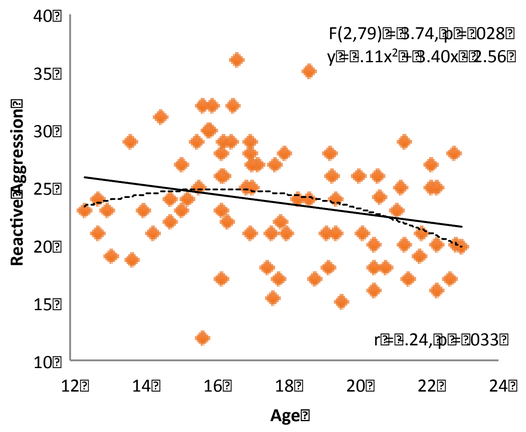
Skin Conductance Results

- **Main effect of Condition (p = .035).**
- Read Negative and Near conditions elicited greater skin conductance responses (SCRs) than the Neutral condition.
- Distancing reduced SCRs to be indistinguishable from neutral.
- No sig differences between negative conditions though we see expected pattern emerging.

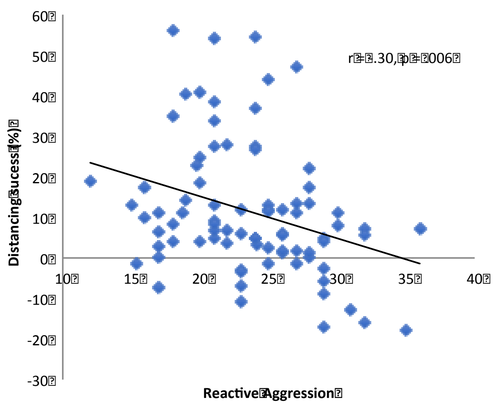


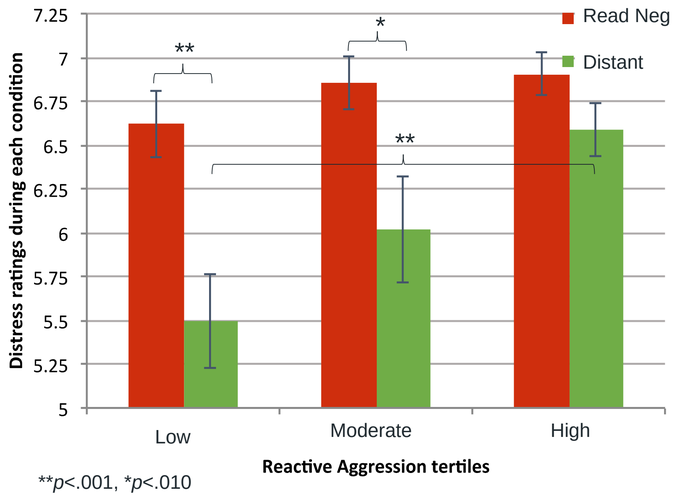
*p<.050

Developmental & Aggression Results



- **No significant effects of age on temporal distancing ability.**
- However there were significant linear and quadratic relationships between age and reactive aggression (but not proactive aggression ps > .411).
- Significant quadratic relationship between age and trait anxiety (F(2,79) = 3.93, p = .024, y = 13.34x – 72.33 -.38x^2)





**p<.001, *p<.010

- **Reactive aggression negatively correlated with distancing success** (age controlled).
- This was not due to differences in baseline distress.
- Those with high aggression are only marginally able to reduce their distress using distancing (t(28) = 1.94, p = .063, effect size *d* = .42) compared to the low (t(30) = 6.57, p < .001, *d* = .81) and moderate groups (t(21) = 3.32, p = .003, *d* = .67).
- There were no relationships between the task and proactive aggression (ps>101).

Conclusions

- Temporal distancing is an effective ER strategy over and above no strategy and taking a near-future perspective.
- The further into the future one thinks of when using this strategy, the more one is able to effectively reduce their subjective distress and arousal.
- Skin conductance data suggests that temporal distancing is effective at reducing physiological arousal down to similar levels of SCRs elicited during the reading of neutral scenarios.
- The lack of developmental differences in temporal distancing ability suggests that the strategy can be easily implemented and is effective for young adolescents and adults alike.
- However, this strategy may be of limited effectiveness in those with high levels of reactive aggression.

References

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