Beyond surveys: Using innovative methods for understanding peer defending in school bullying



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Learning Objectives

#1. Compare the unique strengths and limitations of surveys, interviews, and experimental methods for studying peer defending and bullying.

#2. Understand how social information processing theory can be applied to bystander decision-making in bullying contexts.

#3. Learn how virtual reality can be used to understand the mechanisms underlying peer defending that may not be captured through traditional methods.

#4. Consider how research findings on bystanders may help inform bullying prevention efforts.

We love surveys!



Which Animal Is Your 100% Personality Match? Pick A Movie For Every Letter Of The Alphabet To Find Out

You're giving off major dog energy!

m.gonsalves

Contents lists available at ScienceDirect

Journal of School Psychology

journal homepage: www.elsevier.com/locate/jschpsyc

Peer defending as a multidimensional behavior: Development and validation of the Defending Behaviors Scale

Laura J. Lambe*, Wendy M. Craig



Make Your Perfect Fall Week And We'll Decide What Your Personality Type Is

Post-Halloween autumn is underrated!

RennCrafter

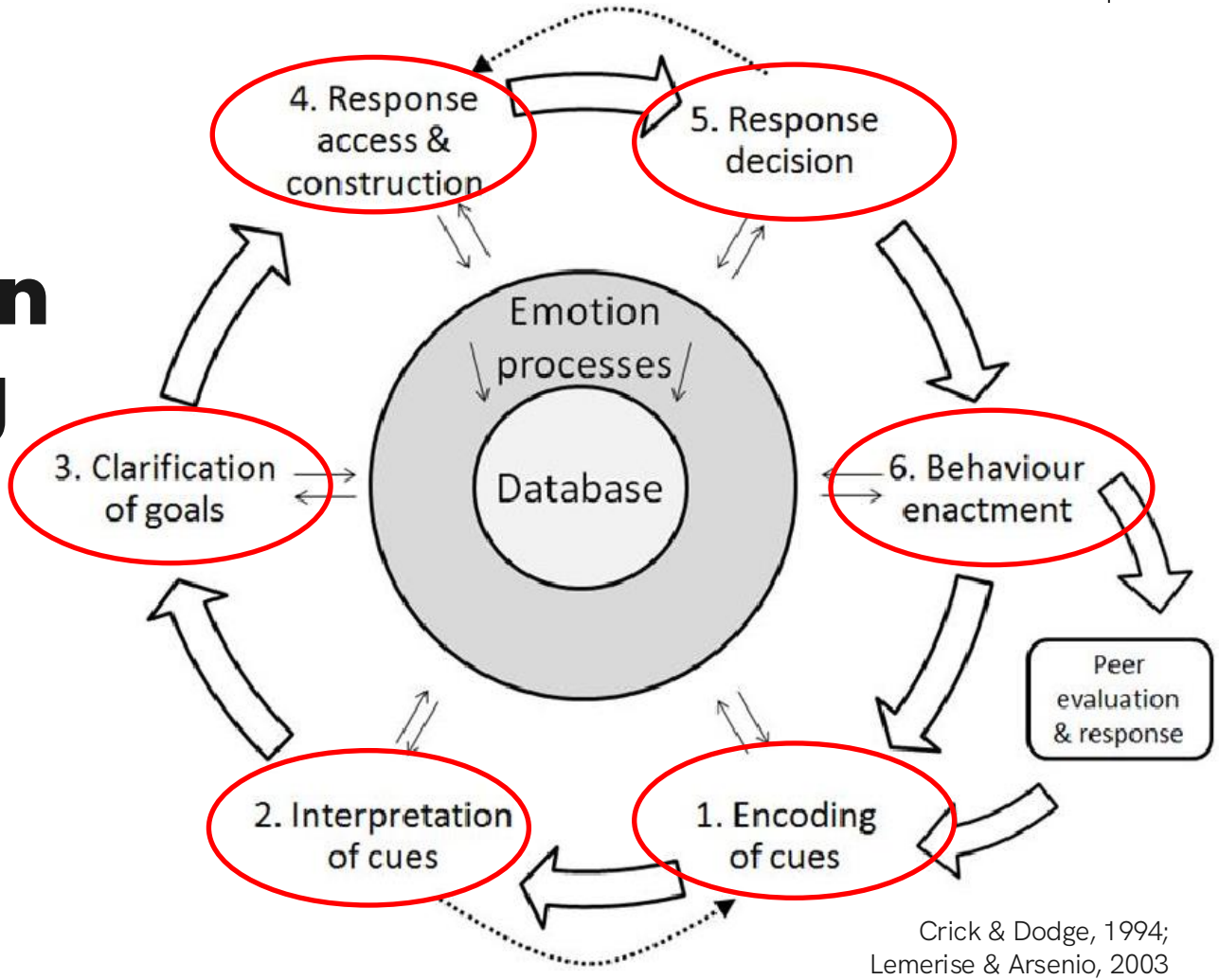
How do we measure bullying and peer defending?

- Quantitative survey designs:
  - Peer reports – 48%
  - Self-reports – 43%
- Qualitative designs
- Observational designs (not really anymore)
- Experimental designs?



Lambe et al, 2019

Social Information Processing Theory



Crick & Dodge, 1994;
Lemerise & Arsenio, 2003


NOBODY LIKES YOU!
THEY'RE BEING AWFUL!
WHAT CAN I DO?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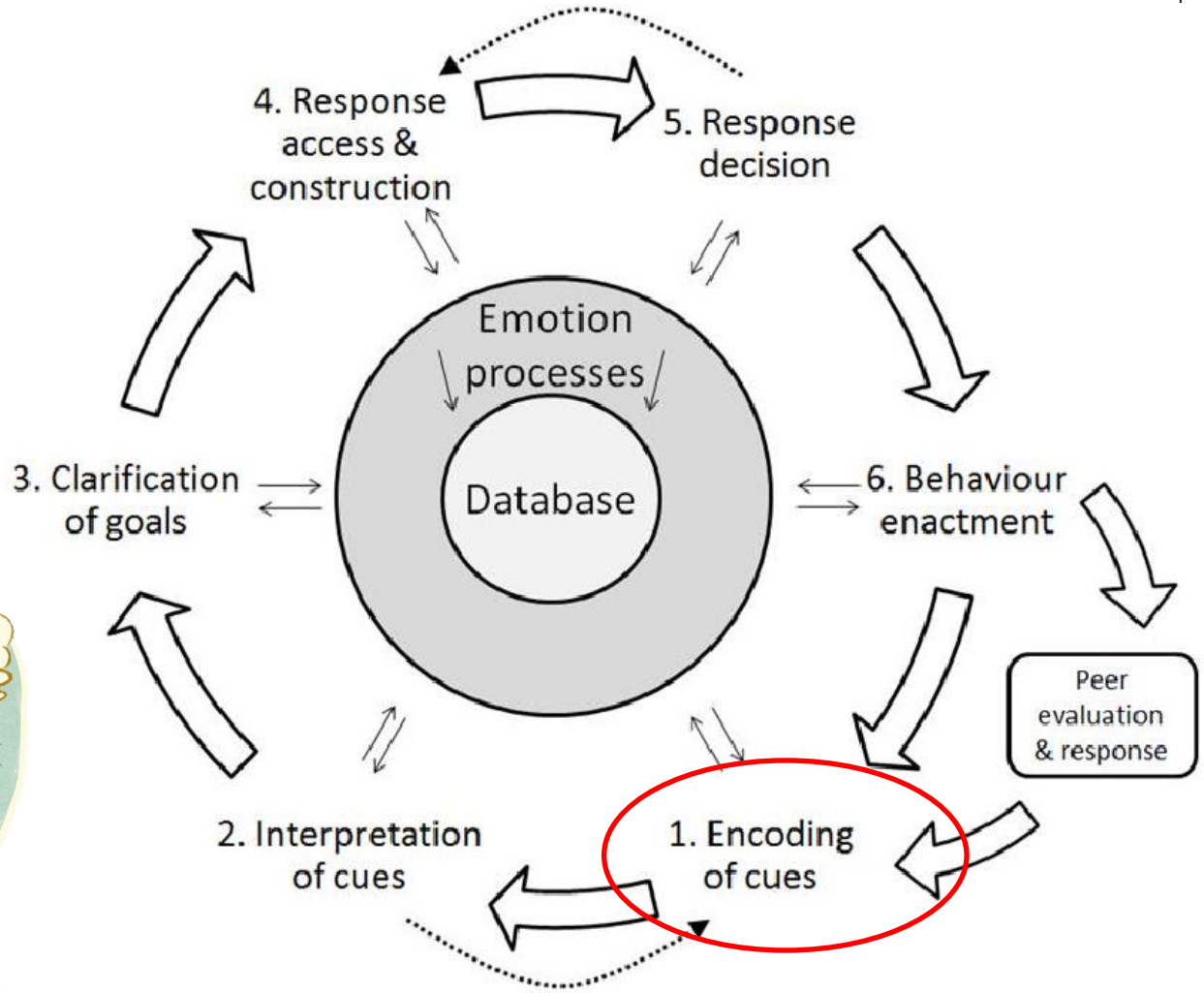
4. Response access & construction
5. Response decision
Emotion processes
Database
3. Clarification of goals
6. Behaviour enactment
Peer evaluation & response
2. Interpretation of cues
1. Encoding of cues


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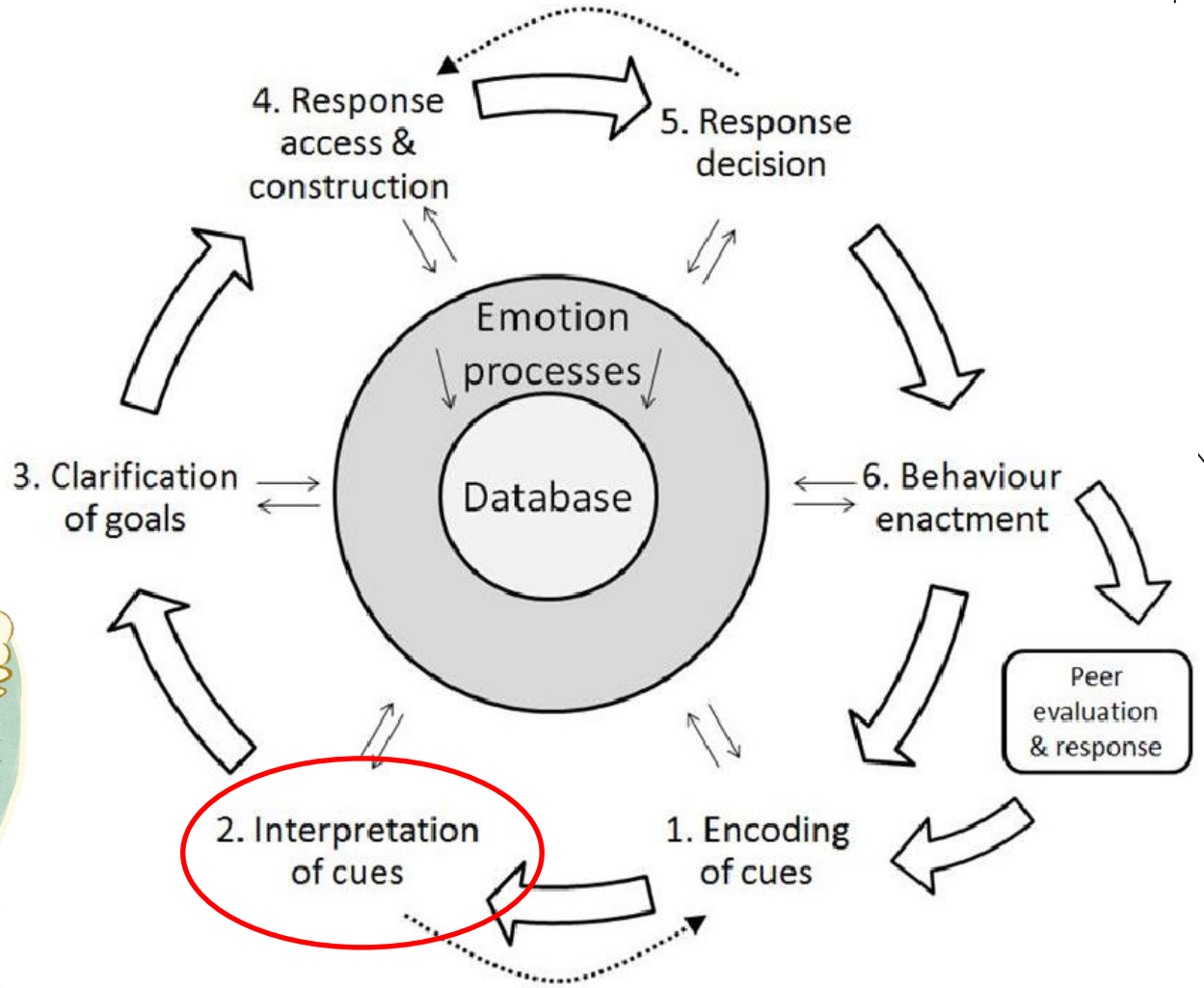
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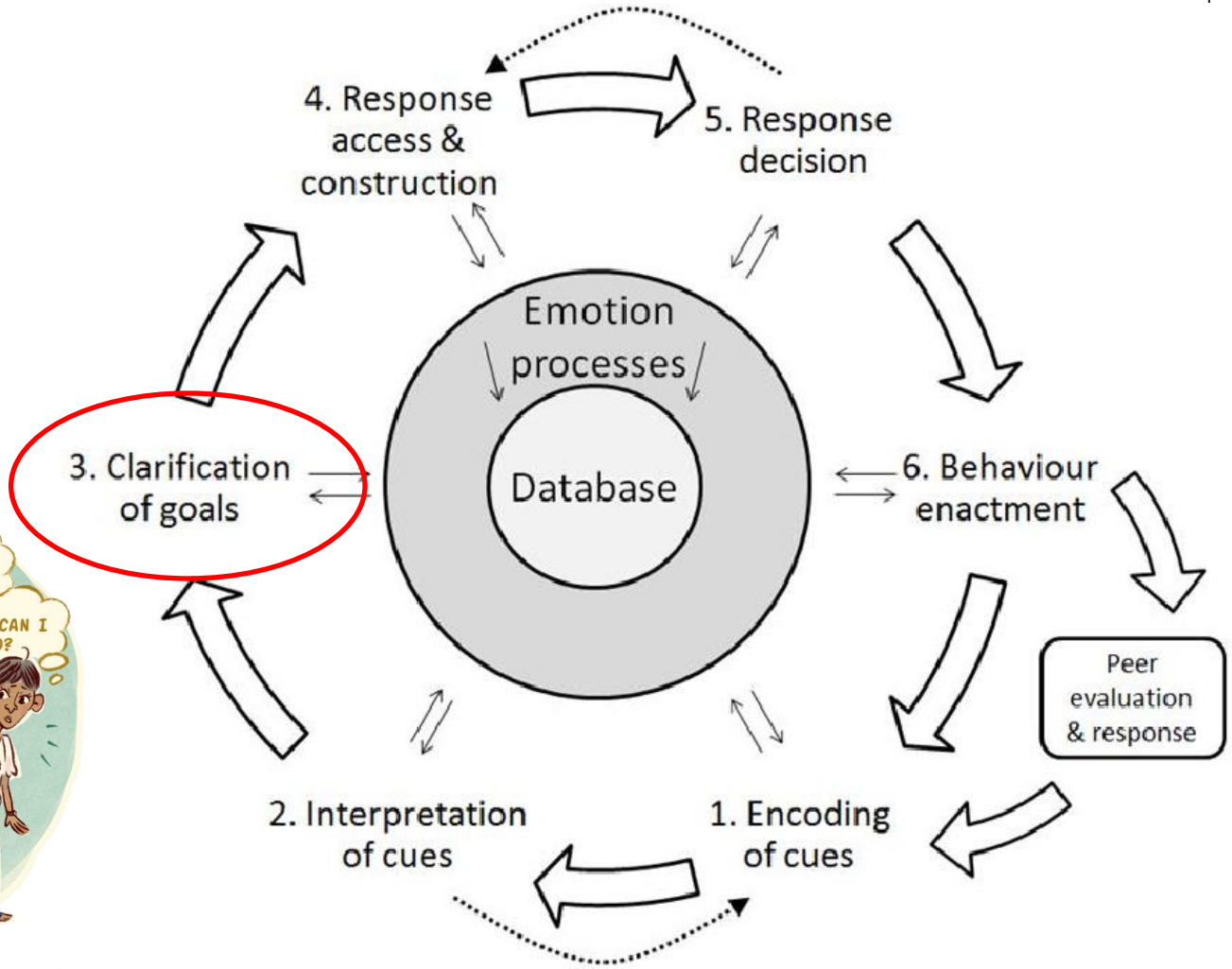
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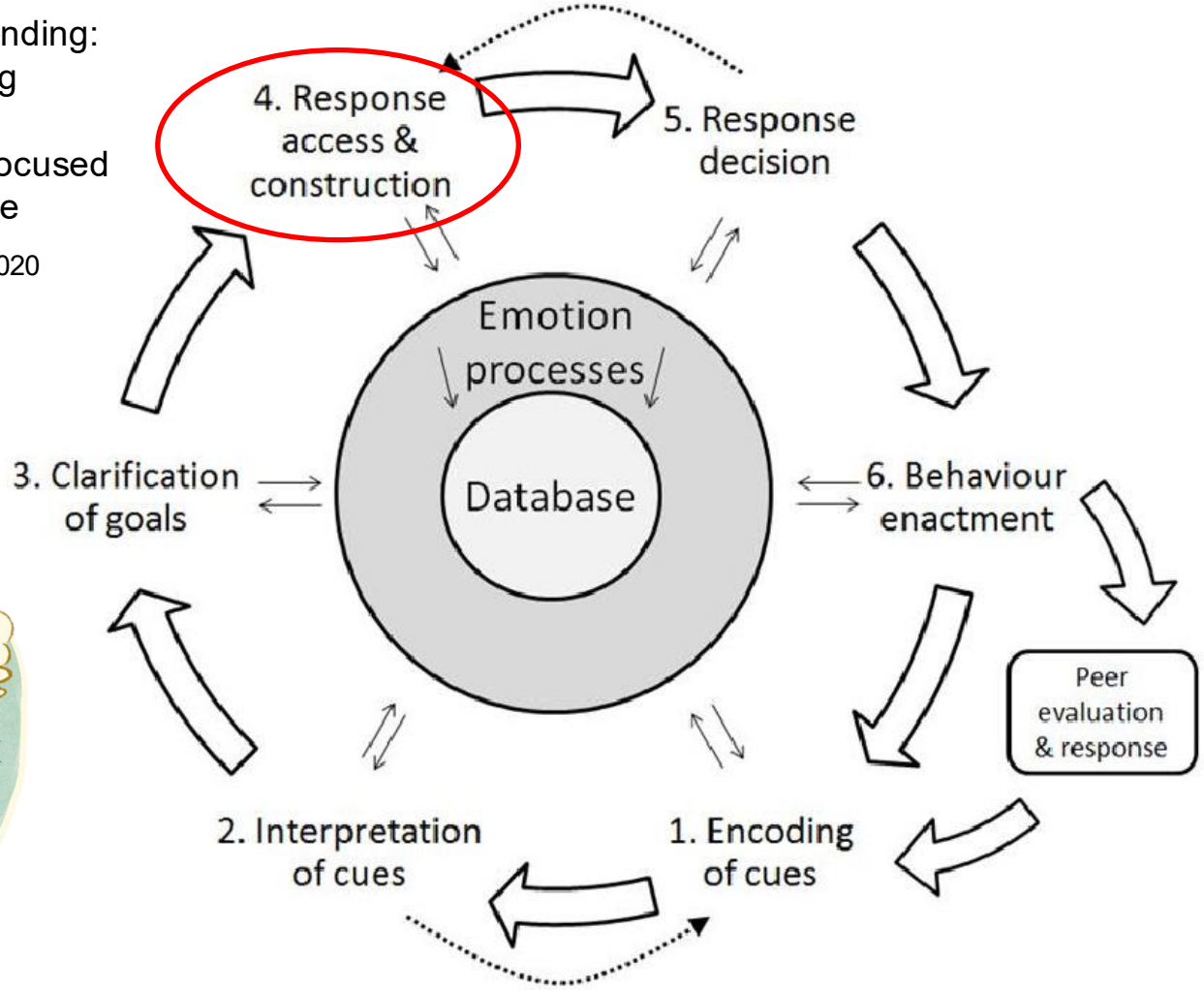
Types of defending:

- Comforting
- Reporting
- Solution-focused
- Aggressive

Lambe & Craig, 2020



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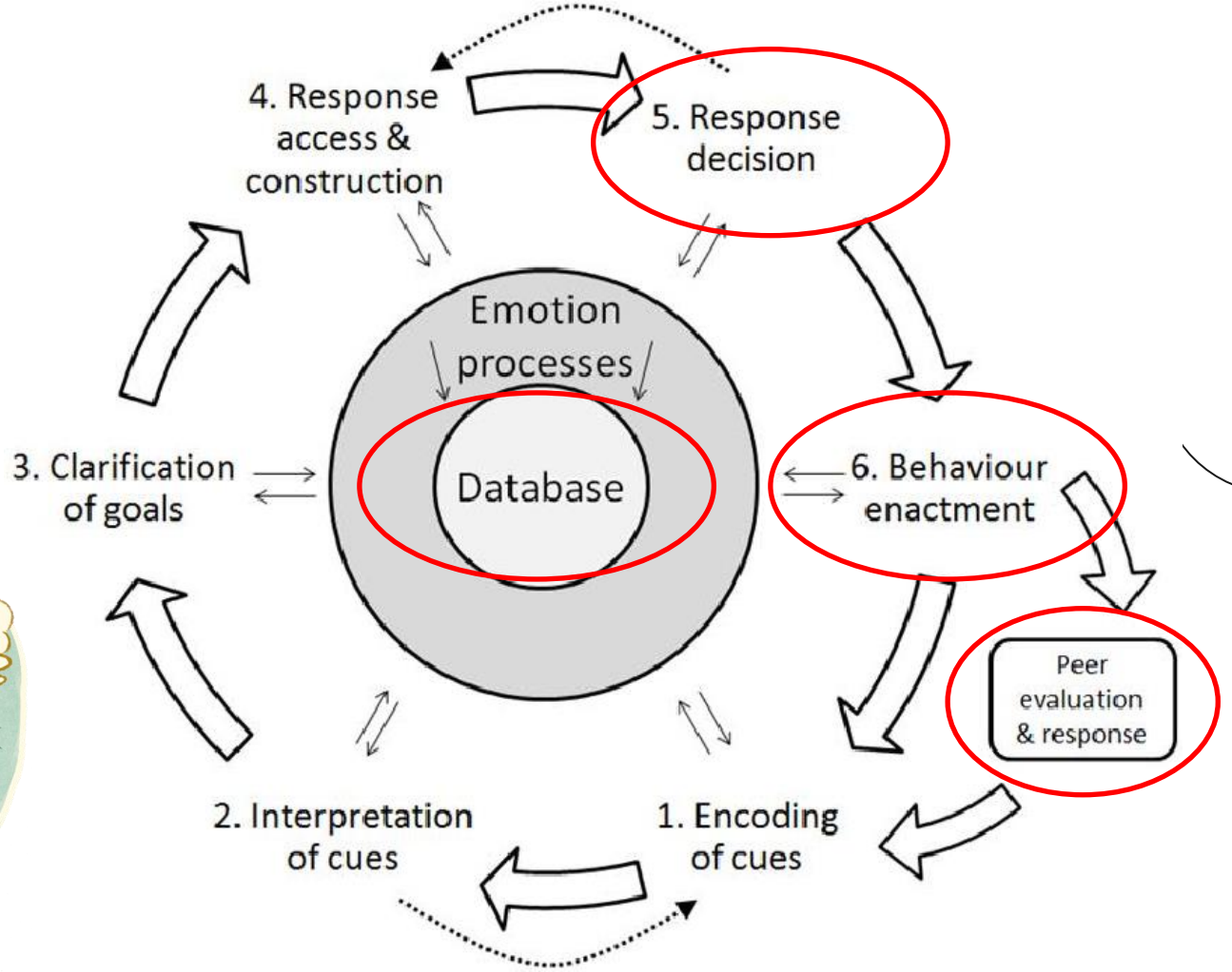
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Cyberball: An experimental tool for bystanders and peer defending

- Cyberball is a well-validated social exclusion paradigm (Williams, 2006)
- Adapted to VR and adapted to create an “opportunity” for peer defending behaviours (Lambe & Craig, 2022)
- Pros
  - Systematically manipulate situational variables
  - Reduces recall bias/social desirability
  - Ethical exposure to peer victimization(?)



International Journal of Bullying Prevention
https://doi.org/10.1007/s42380-022-00128-8

ORIGINAL ARTICLE

Anger and Empathy: Exploring the Underlying Emotional Processes of Peer Defending Behaviors Using Virtual Reality

Laura J. Lambe[1] · Wendy M. Craig[2]



120 participants
Ages 11-14
49% female



Cyberball-VR
Vicarious emotions, Empathy
Observed defending

Comforting

"..sorry the other two dudes didn't pass to you as much"

"You should pass to other players next time"

Solution-focused

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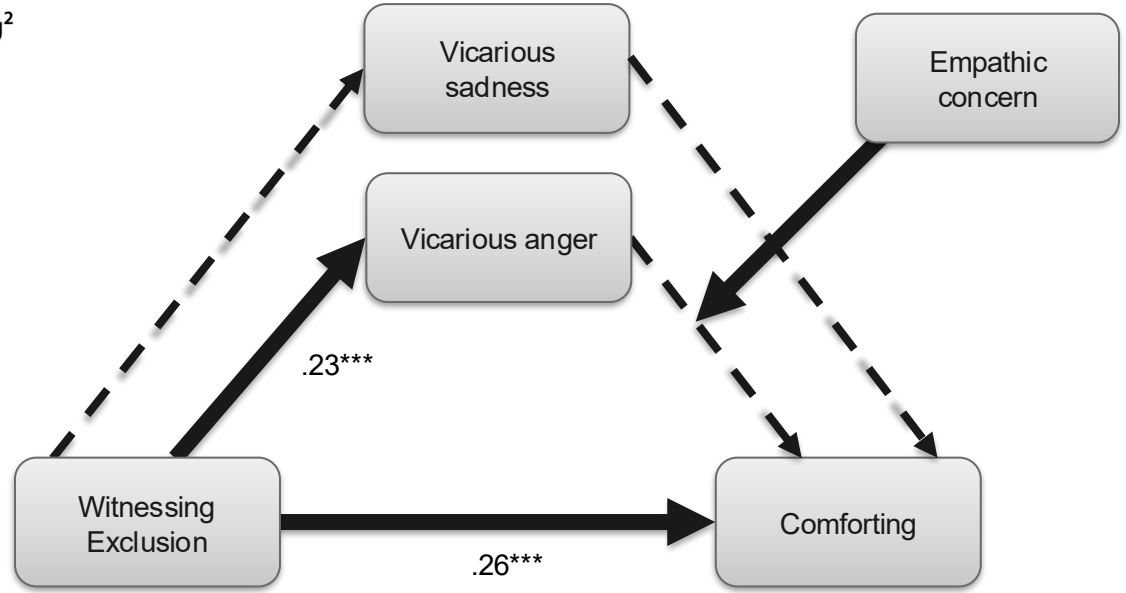


"…you weren't getting passed to"

"I feel really bad for you.."

But what about relationships?



“Relationships” in the lab





Minimal Group Paradigm

- Participants are randomly assigned to arbitrary groups (e.g., Blue vs. Yellow)
- Produces *in-group favouritism* in social judgments and resource allocation

Intergroup empathy bias

- People may experience greater empathy for in-group members than out-group members.
- Promotes defending?

Tajfel et al. 1971
Cikara et al., 2014

Current research

SSHRC CRSH
Social Sciences and Humanities Research Council of Canada
Conseil de recherches en sciences humaines du Canada

Research question: How do social-cognitive factors predict peer defending behaviours?

- How does in-group and out-group membership influence peer defending behaviours?

Minimal group paradigm: "Red team" (e.g., Tajfel et al., 1971; Otten 2016)

- In-group victimized
- In-group aggressor
- Control (no group)

Study design

Participants:

- N=50 youth ages 11-14

Procedure:

1. Pre-task

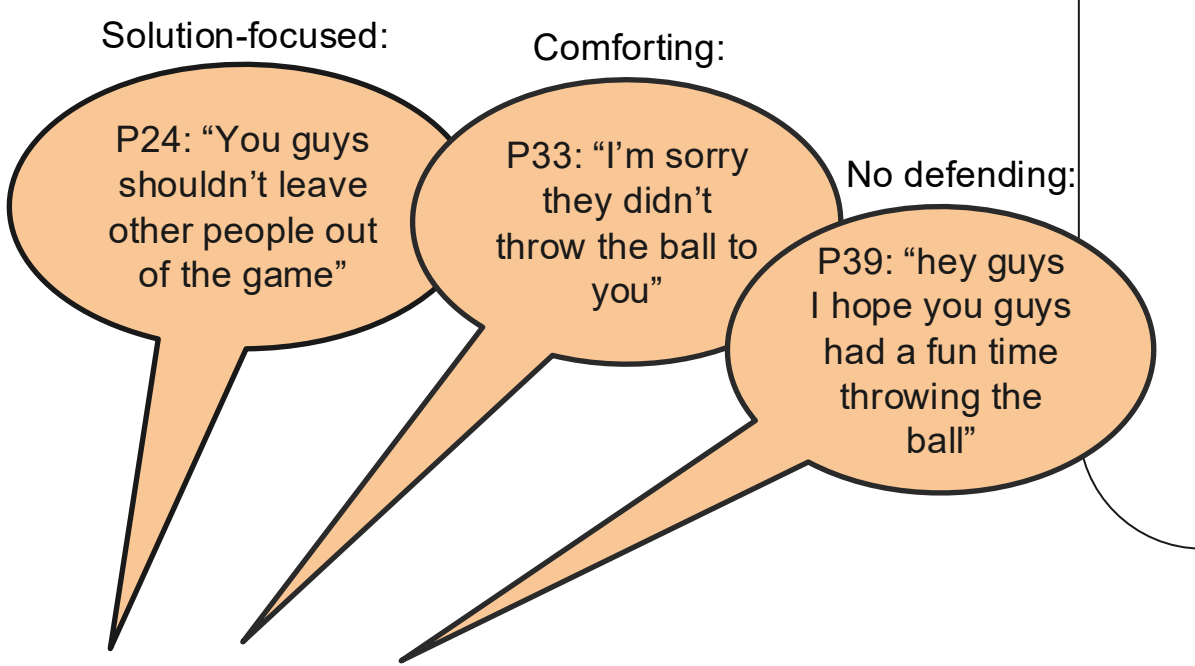
- Baseline questionnaires
- E.g., Self-reported bullying, defending, anxiety sensitivity

2. Cyberball-VR

- 3 rounds: inclusion, vicarious exclusion, inclusion
- The participant is the "observer" in exclusion
- Code their messages for defending
- State affect questionnaire

3. Post-task

- Manipulation check
- Debriefing



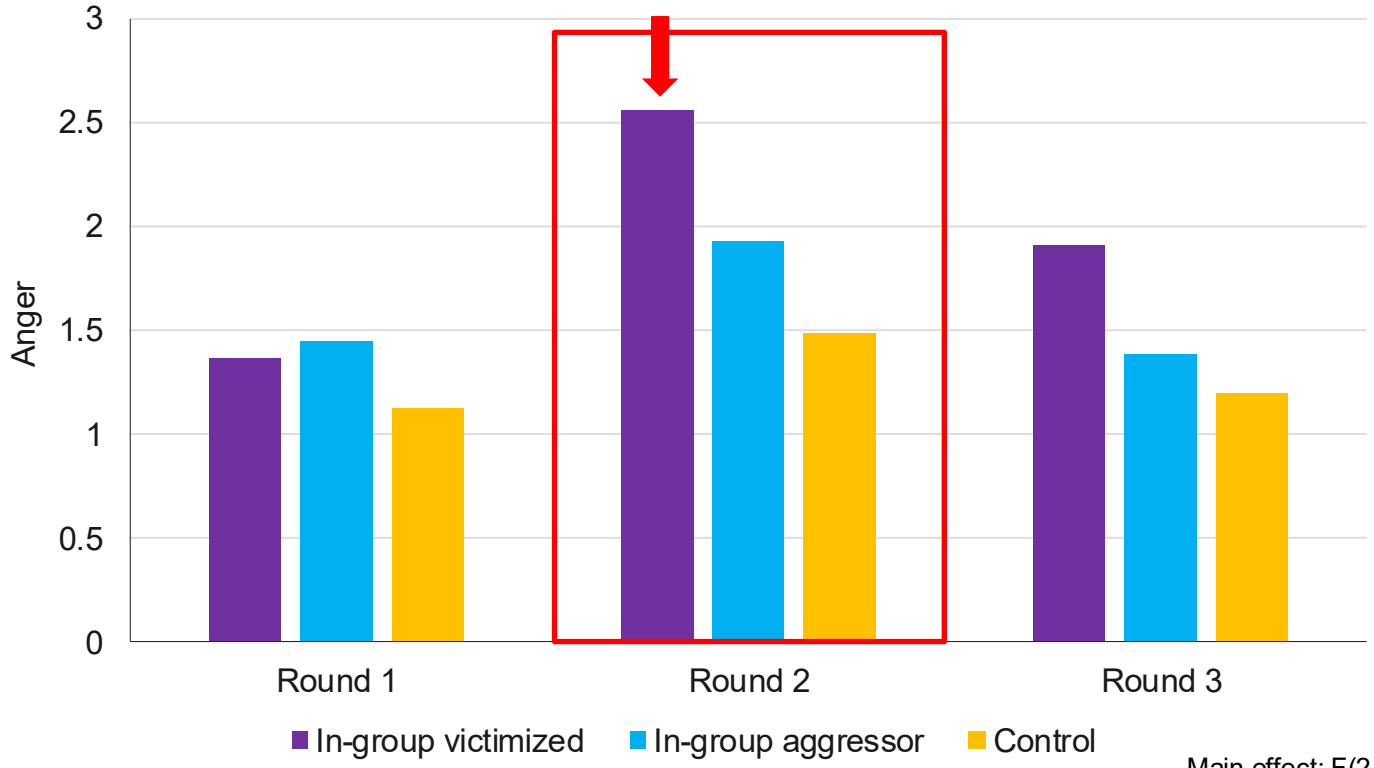
Preliminary results

How does state affect vary by condition?



Preliminary results

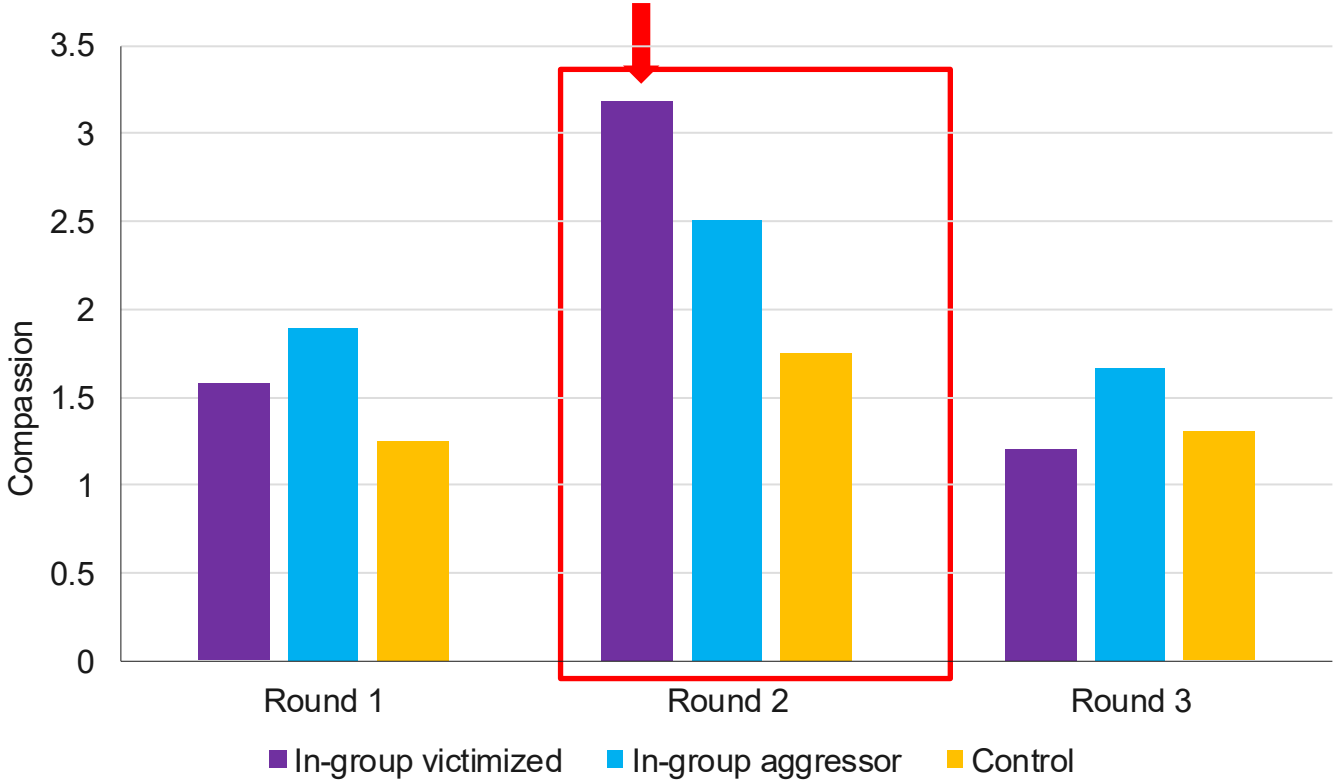
How does anger vary by condition?



Main effect: $F(2, 44) = 7.27$, $p < .001$

Preliminary results

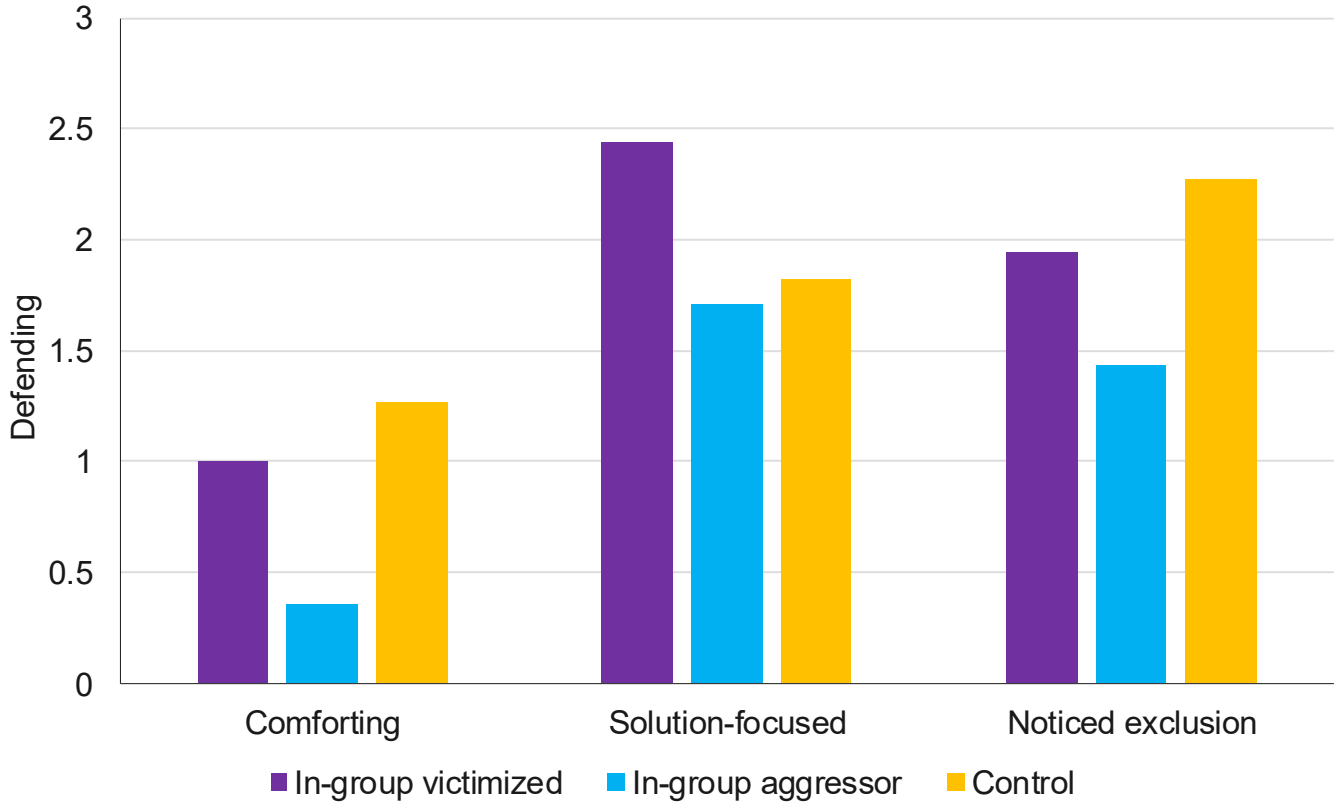
How does sympathy vary by condition?



Main effect: $F(2, 44) = 19.40$, $p < .001$

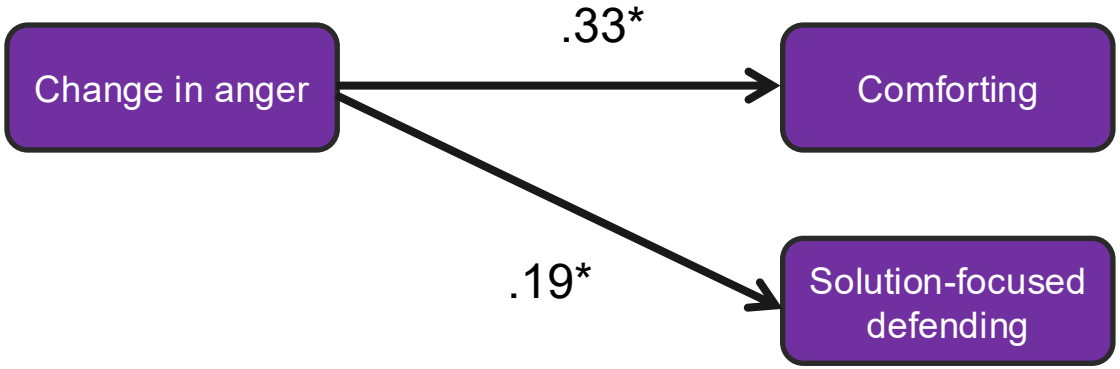
Preliminary results

How do defending behaviours vary by condition?



Preliminary results

Do heightened emotions predict defending?



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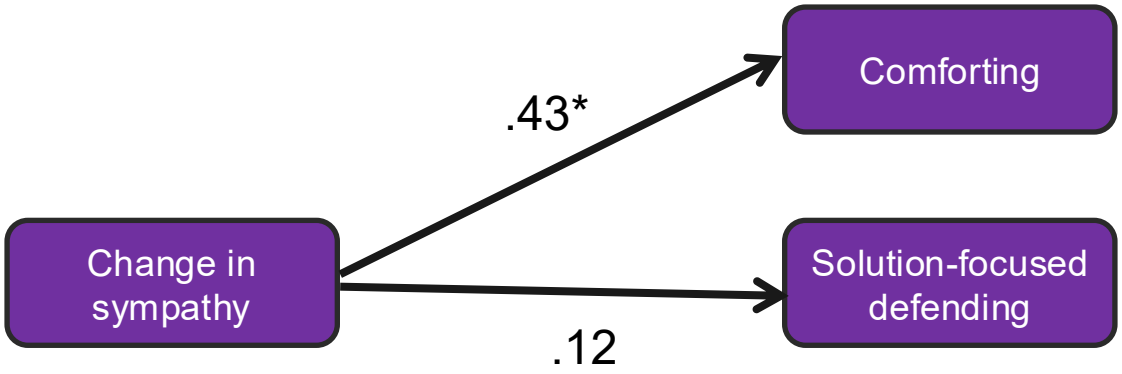
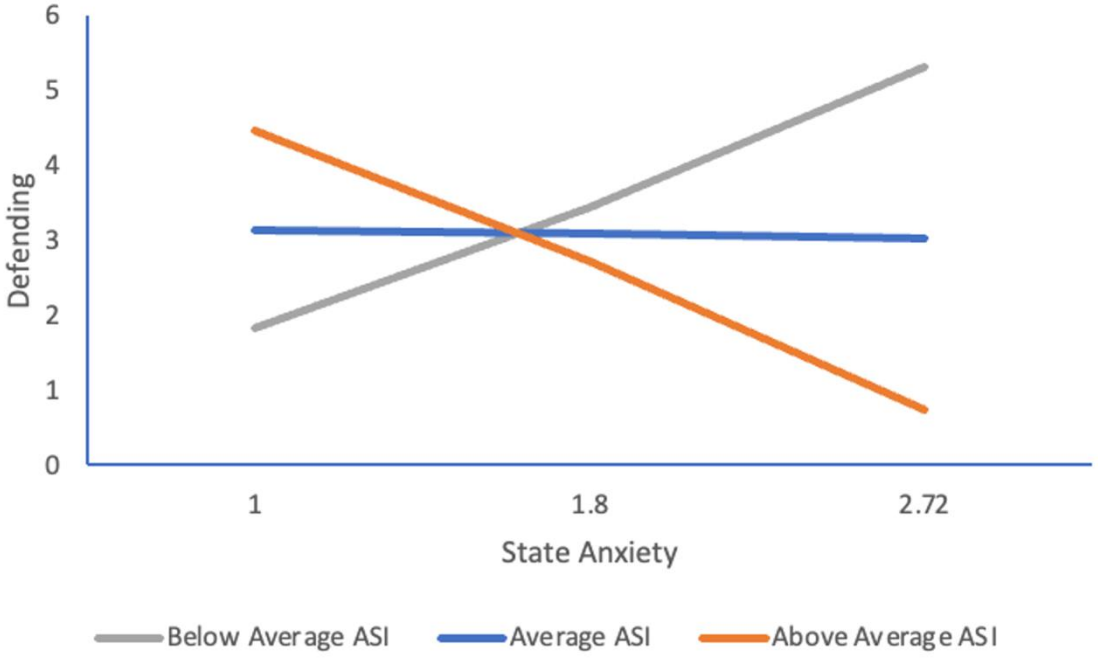


Some other cool things we can do…

1. Interaction between state and trait emotions





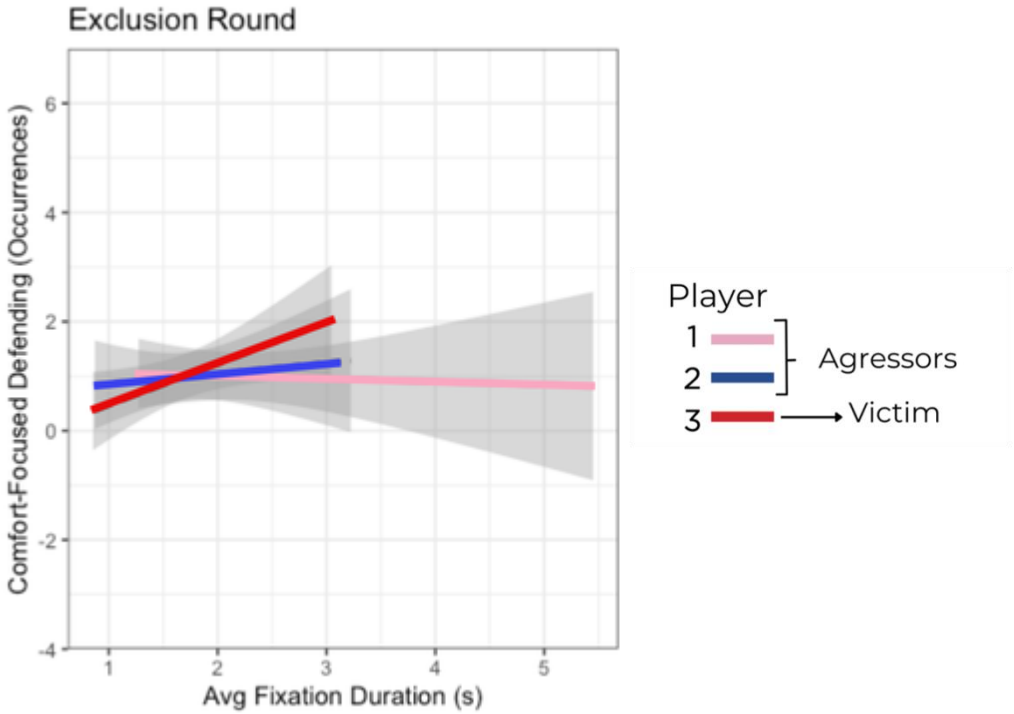
Honours student Anna MacGillivray

- State anxiety predicts defending when trait anxiety sensitivity is low
- When anxiety sensitivity is high, state anxiety inhibits defending

MacGilliivray et al., 2026

Some other cool things we can do…

2. Eye tracking and peer defending





Honours student Julia Byron

- Fixation duration (length of time looking) towards the excluded player predicts comforting

Byron et al., under revision

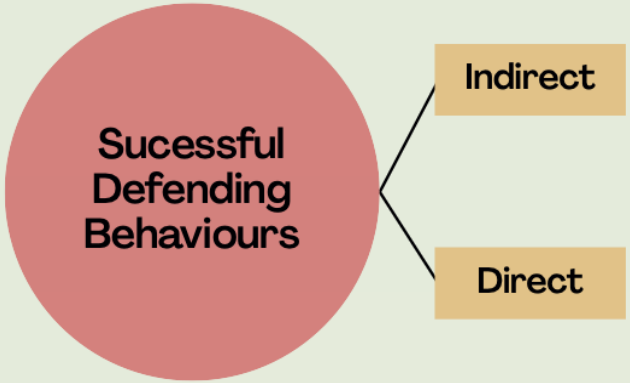
Some other cool things we can do…

3. Qualitative interviews



Honours student Madison Conrad

Interviewer: "…And which type of defending works best and why?"
M021: "Telling the teacher because they actually have authority"



Theme 2

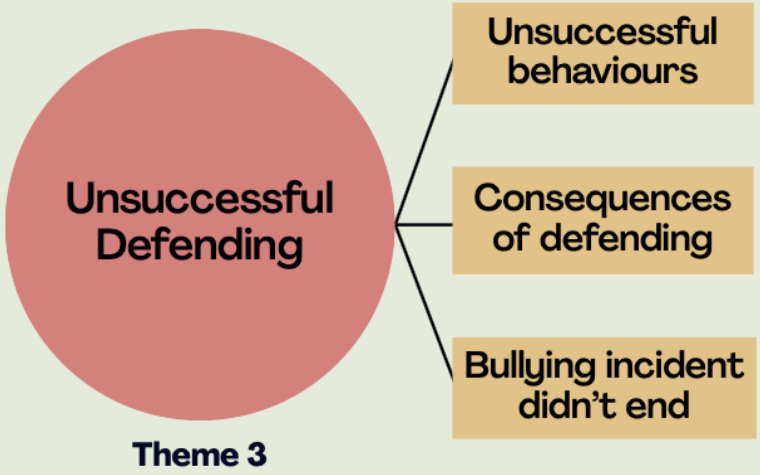
Conrad et al., revise and resubmit

Some other cool things we can do…



Honours student Madison Conrad

3. Qualitative interviews

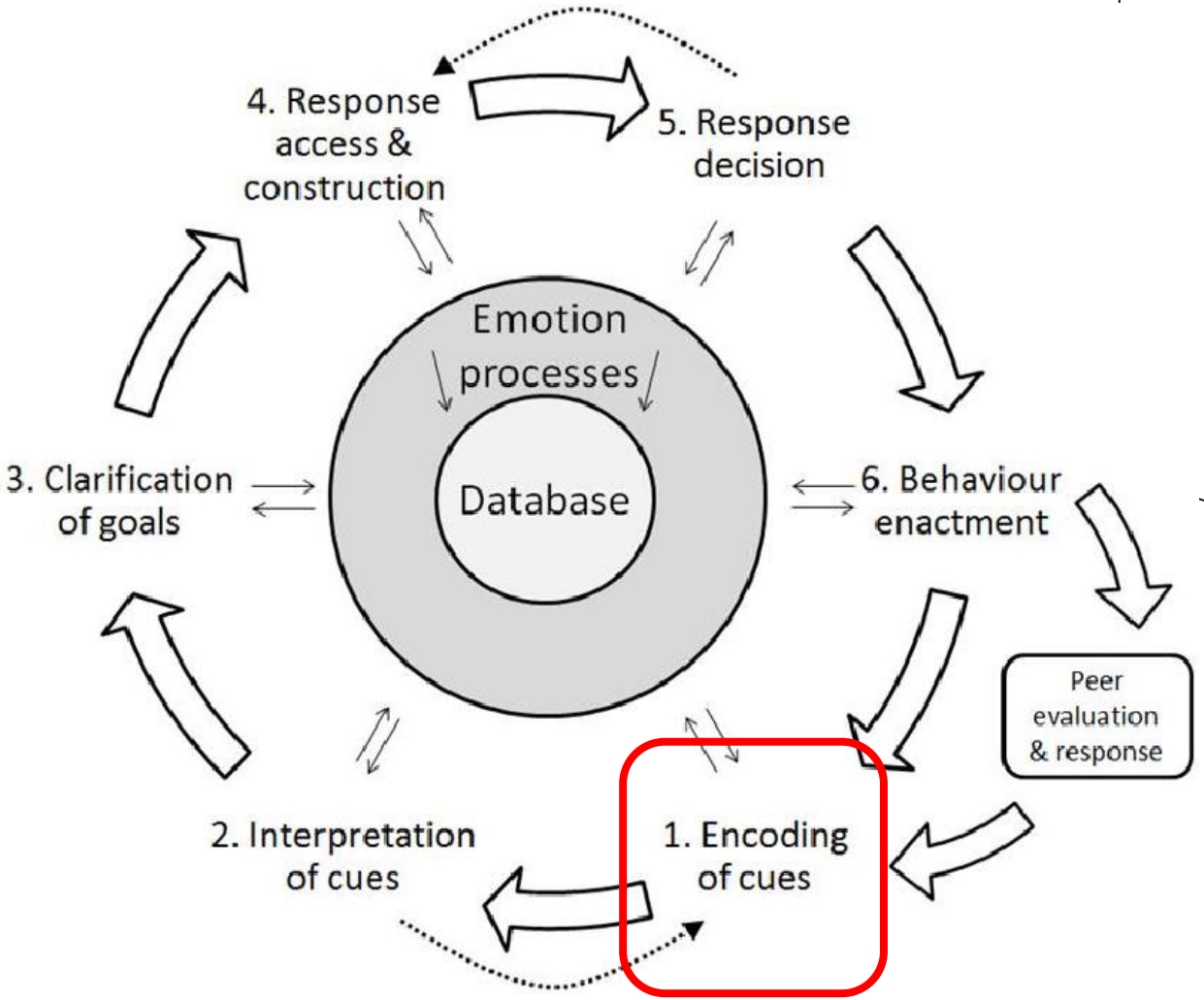


Interviewer: "In general, when other kids defend, do you think their actions are successful?"
M013: "Not usually. If the bully is bullying, they usually don't stop that easily."

Conrad et al., revise and resubmit

Putting it together

- Encoding and interpretation depend on relationships with others present.
- This in turn influences emotions and behaviours.
- Our “database” matters!



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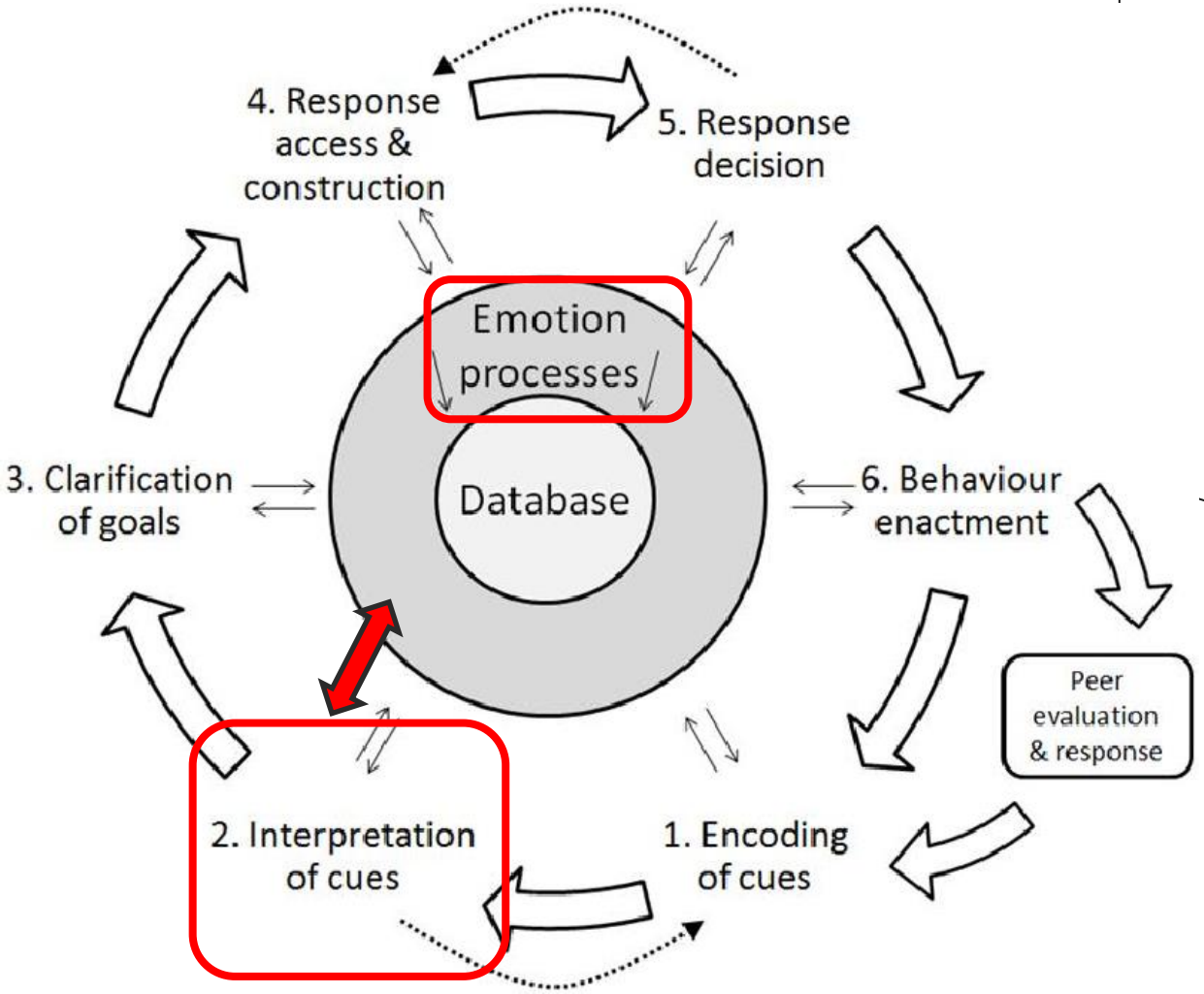

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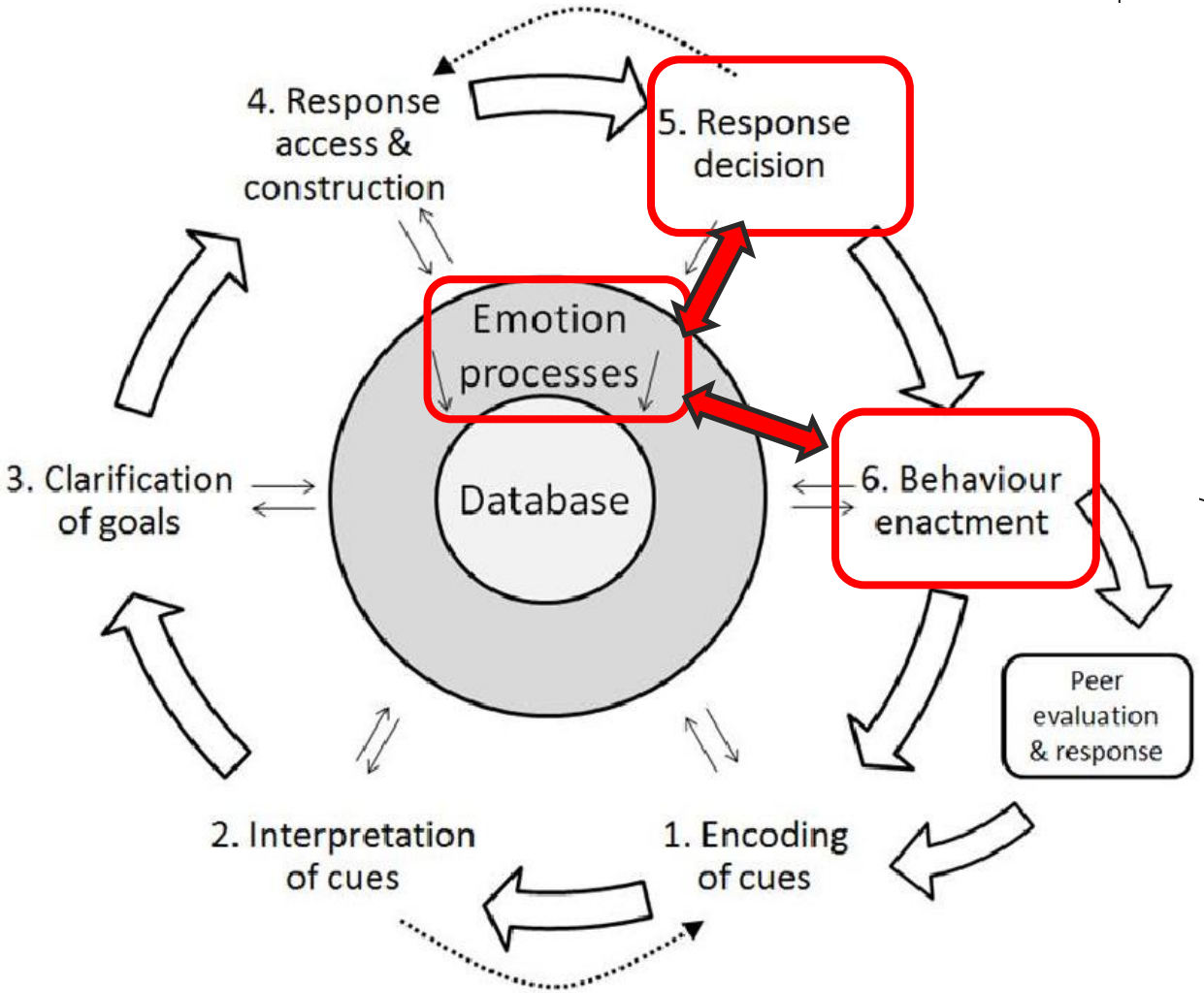


Limitations



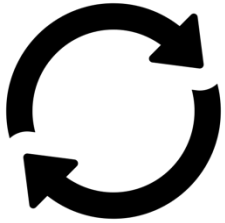
Stimuli

- Relatively benign
- Not perfectly “bullying”?



Defending

- Cannot capture some types of defending



Theory

- Still hard to get every piece of SIP

What does this mean for bullying prevention?



Implications

- Social-emotional learning
- Building "in-group" connections
- Kids defend in different ways!!



Summary and Future Directions

Situational factors matter!

- Being on the “red team” is enough to influence peer defending
- In-the-moment emotions and social attention might give us clues about when defending is more likely to occur

Other variables?

- Social identity (e.g., skin colour, gender of the excluded player)

Direct applications?

- Potential for VR as a bystander training intervention (e.g., de Luca et al., 2026)

THANKS!



Youth advisory committee

Questions?
llambe@stfx.ca

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