

# MisInformation about Past Beliefs Influences Current Beliefs

Liam Hart

Mentors: Michael Wolfe and Todd Williams

Psychology Department

Grand Valley State University

# Memory biased according to current self

People may not have direct access to memory representations (Dunlosky & Thiede, 2013)

Memory of past aspects of self biased towards current aspects of self

- Attitude about bussing to achieve integration (Goethals & Reckman, 1973)
- Political attitudes (Markus, 1986)
- Student anxiety surrounding exams (Safer, Levine, & Drapalski, 2002)
- Beliefs about spanking effectiveness (Wolfe & Williams, 2018)

# Contextual influences on attitudes

Attitudes are dependent on context (Schwarz, 2007)

- not stable, trait-like attributes
- salient information

Implicit Association Test

- results influenced by social/environmental context (Payne, Vulitech, & Lundberg, 2017)

Beliefs may function in a similar way

- reminders of past beliefs following belief change influenced current beliefs (Wolfe et al., 2014)

# Current research

Investigates the influence that salient information has on belief construction

- Will people change their beliefs on a contentious topic like gun control effectiveness?
- Do we accurately remember what we used to believe?
- Will providing information about one's past beliefs influence their current beliefs?

# Methods - Subjects

Participants: Undergraduate students (N = 324)

Initial beliefs: On-line prescreening beginning of semester

“To what extent do you believe that increased gun control will reduce gun violence in the United States? Gun control is defined as strengthening laws or policies that regulate the manufacture, sale, transfer, possession, modification, or use of firearms by civilians.” (9-point scale)

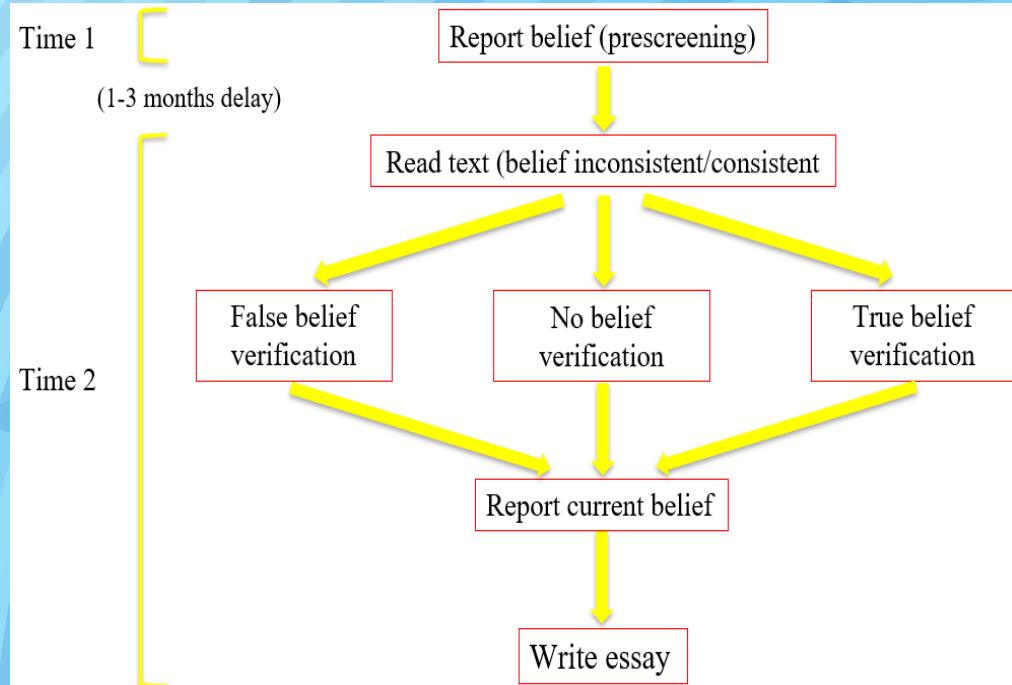
- believers and disbelievers invited to participate



# Methods

Subject gun control beliefs

|               |          | Believer            | Disbeliever         |
|---------------|----------|---------------------|---------------------|
|               |          | Pro text            | Text position       |
| Text position | Pro text | Belief consistent   | Belief Inconsistent |
|               | Con text | Belief inconsistent | Belief consistent   |



# Methods - Procedure

1. Report beliefs in pre-screen  
(1-3 month gap)
2. Read belief consistent or inconsistent text
3. Initial belief verification task
  - true, false, or no gun control belief verification
4. Post-reading beliefs (same question as prescreening)
5. Argumentative essay

# Manipulation (belief verification task) was effective

82% verified false beliefs to be true

91% verified true beliefs to be true



# Conclusions

Reading a belief inconsistent text leads to more moderate beliefs – even on a contentious topic like gun control effectiveness

Misinformation about past beliefs did not affect belief change, however it was also unnoticed

Verifying true information about past beliefs led to less belief change than other information conditions

Belief recollection is poor

- 82% verified false beliefs to be true

Argumentative essay ratings will serve as a convergent measure for beliefs

- Analyses ongoing

# Thank You!

The Student Summer Scholars Program was a great experience!

# Possible theoretical explanations

Memory error:

Recollections generated using currently available mental representation.

Current beliefs bias ability to accurately recollect previous belief

(Levine & Safer, 2002; Ross, 1989; Schacter, 1999)

Desire for cognitive consistency:

Students desire to appear internally consistent across time (Aronson, 1969; Gawronski & Strack, 2012).

Belief change creates dissonance (eg. Festinger, 1957).

Dissonance reduced by recollecting previous belief as similar to current belief.

# Methods – Design and Materials

Subject gun control beliefs

Believer

Disbeliever

Pro text

Belief  
consistent

Belief  
Inconsistent

Text  
position

Con text

Belief  
inconsistent

Belief  
consistent

Materials:

“Pro text” – Argues gun control is effective.  
(2,252 words)

“Con text” - Argues gun control is not effective.  
(2,223 words)

Time 1

Report belief (prescreening)

(1-3 months delay)

Read belief consistent text

Read belief inconsistent text

False belief verification

No belief verification

True belief verification

Time 2

Report current belief

Write essay



Time 1

Report belief (prescreening)

(1-3 months delay)

Read text (belief inconsistent/consistent)

False belief  
verification

No belief  
verification

True belief  
verification

Time 2

Report current belief

Write essay



# Results

Estimated Marginal Means - Belief consistency  $\times$  Information Condition  $\times$  Belief Recollection

| Belief Recollection | Information Condition | Belief consistency | Mean | SE    | 95% Confidence Interval |       |
|---------------------|-----------------------|--------------------|------|-------|-------------------------|-------|
|                     |                       |                    |      |       | Lower                   | Upper |
| Time 1 (Baseline)   | FALSE                 | Consistent         | 1.96 | 0.111 | 1.75                    | 2.18  |
|                     |                       | Inconsistent       | 2.10 | 0.118 | 1.87                    | 2.33  |
|                     | None                  | Consistent         | 2.31 | 0.117 | 2.08                    | 2.54  |
|                     |                       | Inconsistent       | 2.30 | 0.112 | 2.08                    | 2.52  |
|                     | TRUE                  | Consistent         | 2.08 | 0.117 | 1.85                    | 2.31  |
|                     |                       | Inconsistent       | 2.18 | 0.112 | 1.96                    | 2.40  |
|                     | Time 2                | Consistent         | 1.96 | 0.245 | 1.48                    | 2.45  |
|                     |                       | Inconsistent       | 4.65 | 0.259 | 4.14                    | 5.16  |
|                     | None                  | Consistent         | 2.06 | 0.256 | 1.55                    | 2.56  |
|                     |                       | Inconsistent       | 4.54 | 0.247 | 4.05                    | 5.02  |
|                     | TRUE                  | Consistent         | 1.85 | 0.256 | 1.34                    | 2.35  |
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