

The Role of Hope in Healing the Earth

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I began my
exploration of hope at
zoos & aquariums



Emotional toll among zoo & aquarium educators

- Distressed about threats to animals
 - Fraser et al. (2013)
- Emotional labor
 - Grandey et al. (2013)
 - Swim & Frazer(2013; 2014)



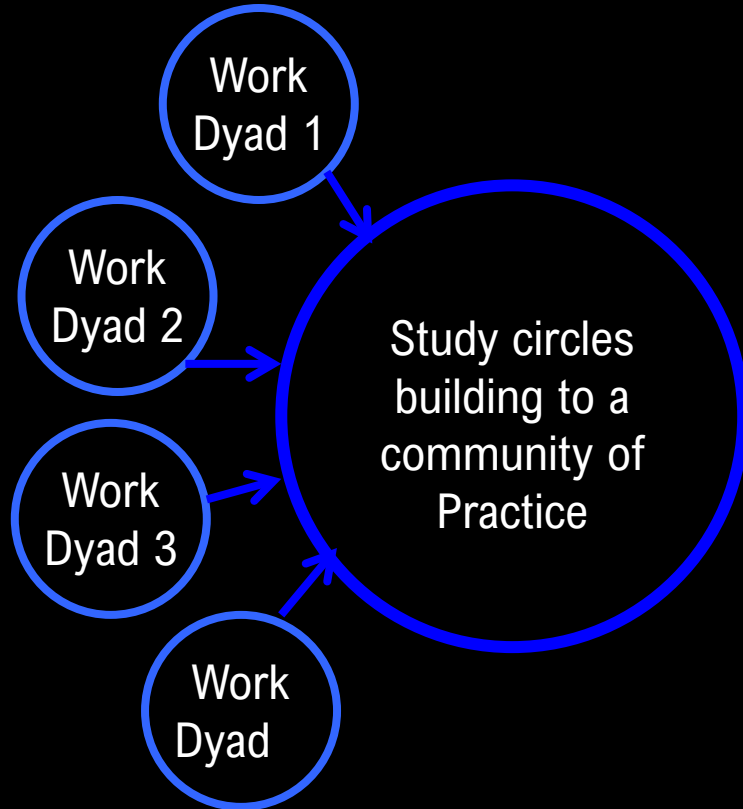
NNOCCI: Building Hope in Educators at 177 Zoos and Aquariums

Working with Johnny Fraser, Nathan Geiger, Karen Gasper, and many others

- Frameworks designed & strategic framing techniques
- Core element was including Process/Systems information into discussions.
 - 1) How people affect climate change & Ocean acidification
 - 2) how these states impact animals
 - 3) logical & effective responses.

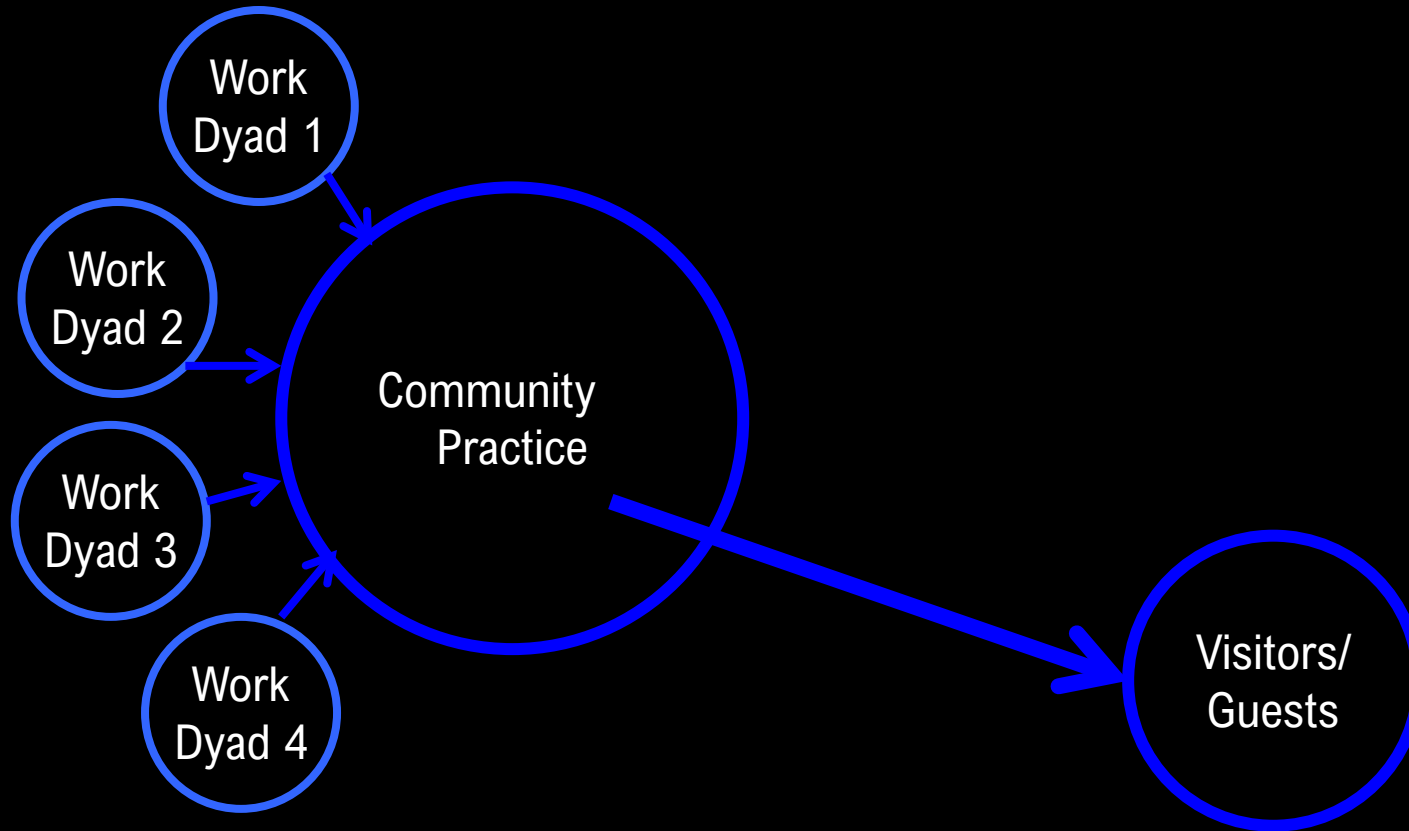


Bi-annual training of interpreters

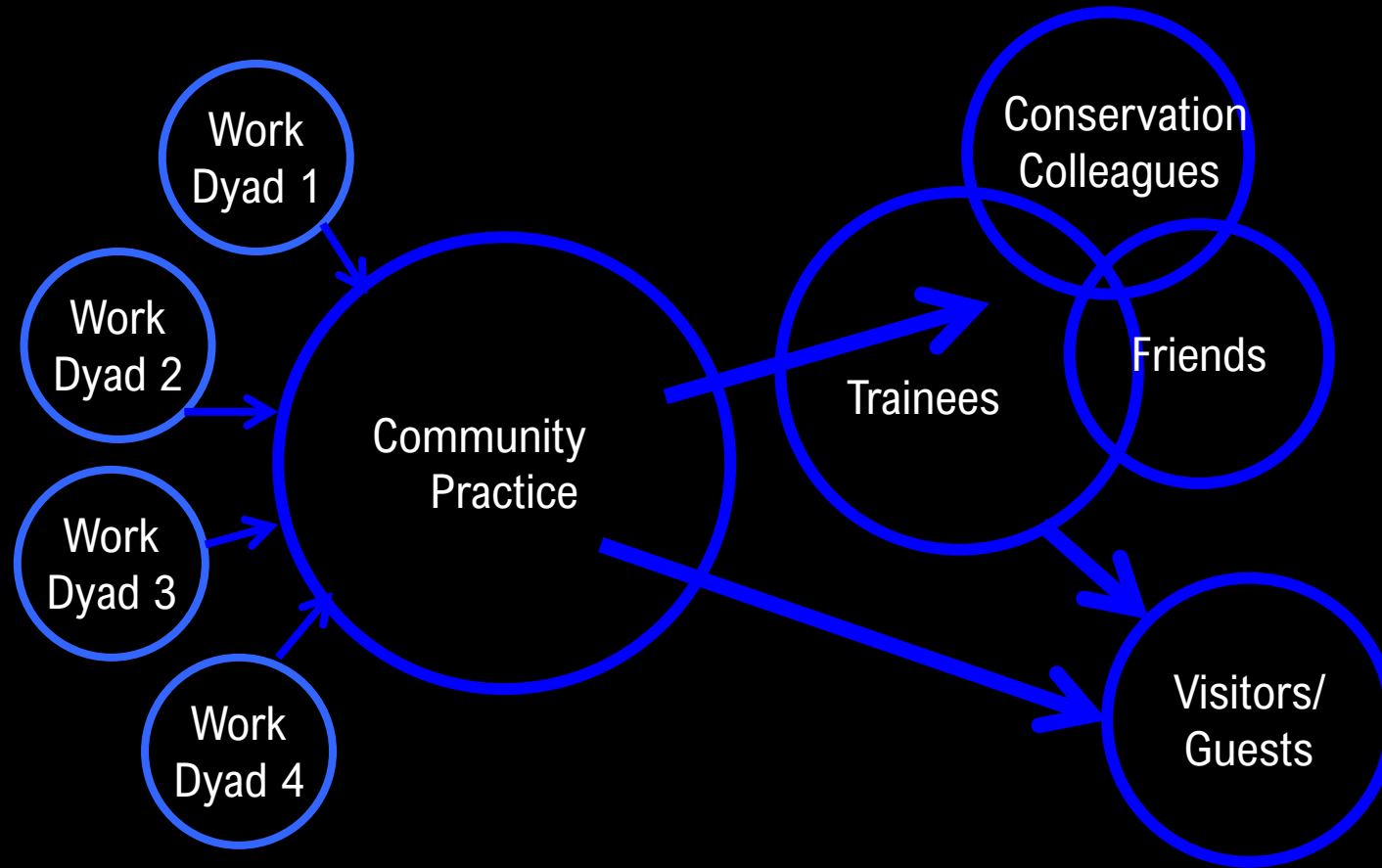


Training based upon audience tested
“Strategic Framing”
(Frameworks Institute)

Promote discussions



Promote discussions



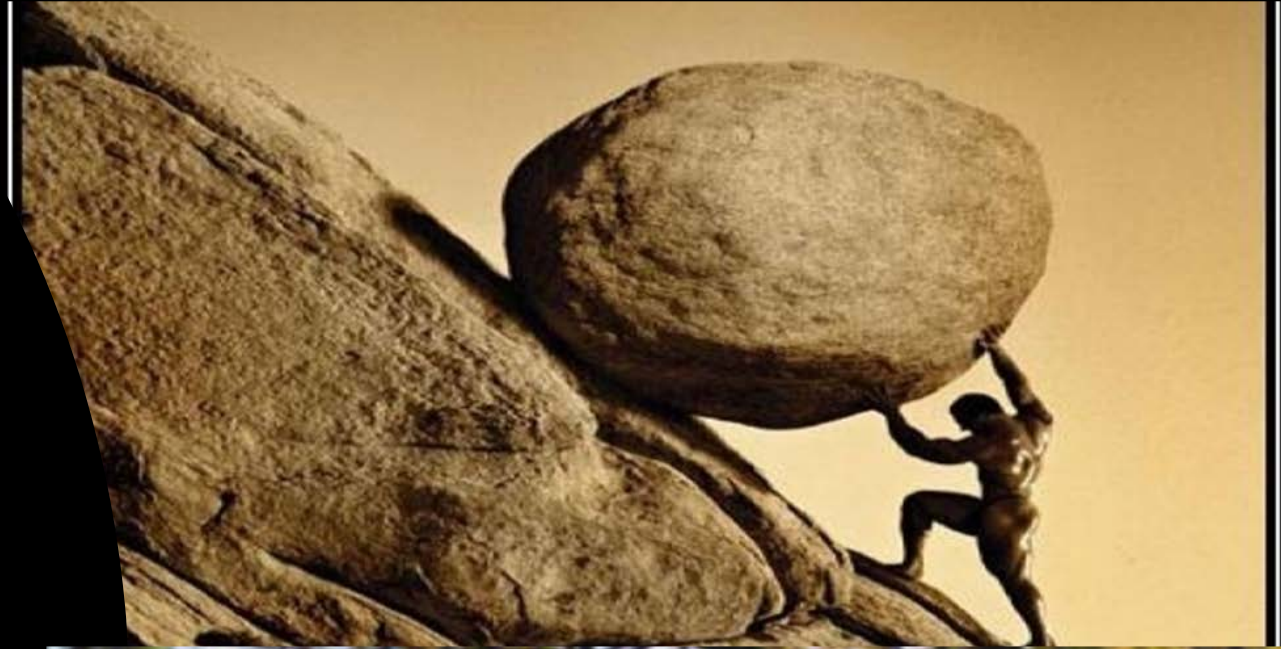
Predicting changes educator's discussion about climate change

(Geiger, Gasper, Swim, & Fraser, 2019)

- Participants: 203 (out of 224) educators
- Surveys: pre, immediately post, and 6 months after fall 2013 and fall 2015 training sessions
- Included measures of hope and frequency of talking to visitors.

Training for hope

- Hope Theory (Snyder, 1991, 1997)
 - Agentic thinking: determination & capacity to achieve goal (will)
 - I do all I can do to discuss climate change.
 - Pathway thinking: Findings ways to achieve goal (ways)
 - E.g., I know lots of ways to discuss climate change.



Measures & Means

	One-month pretraining	One month post training	6 to 9 months post training
Hope	"Will" and "ways" to discuss climate change increased pre to post training		
Agency (will) ¹	M = -0.20	M = 0.67	
Pathways (ways) ²	M = -0.10	M = 1.25	

Hope from -2 (strongly disagree) to 2 (Strongly agree);

¹ $t(113) = 12.98, p = .001$; ² $t(113) = 15.13, p = .001$, ³ $t(113) = 9.12, p = .001$

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Self-reported frequency of their climate change with visitors to ISLC ³ increased pre to six-months post training			
	M = 2.86		M = 4.19

Hope from -2 (strongly disagree) to 2 (Strongly agree); Frequency from 0 (never) to 8 (everyday)

¹ $t(113) = 12.98, p = .001$; ² $t(113) = 15.13, p = .001$, ³ $t(113) = 9.12, p = .001$

Predicting discussing climate change

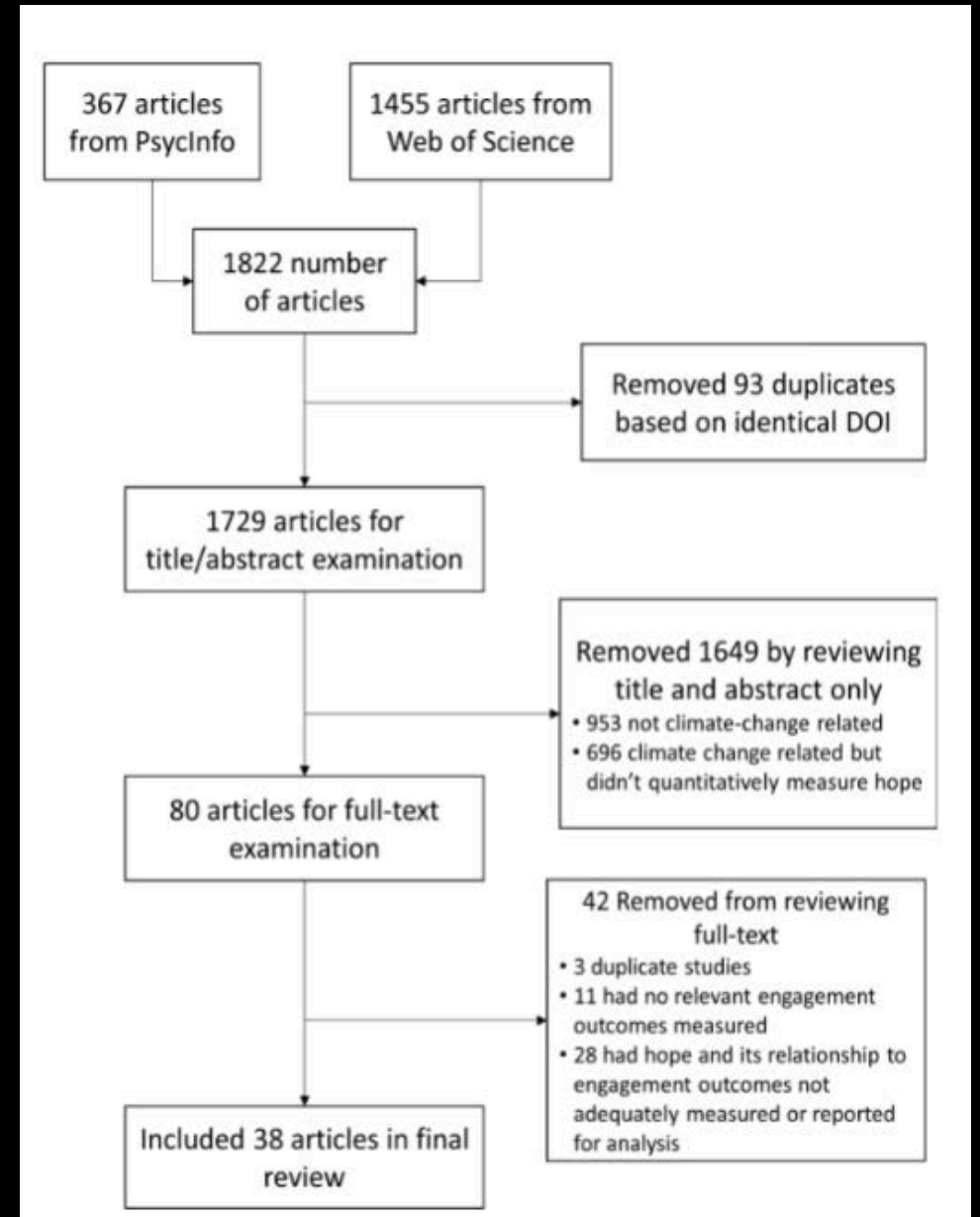
Changes in pathways (ways) but not agency (will)
predict increasing discussions

- Participants who increased pathways talked more
 - Change in Agency (will) $b = .09$
 - Change in Pathways (ways) $b = .33^*$

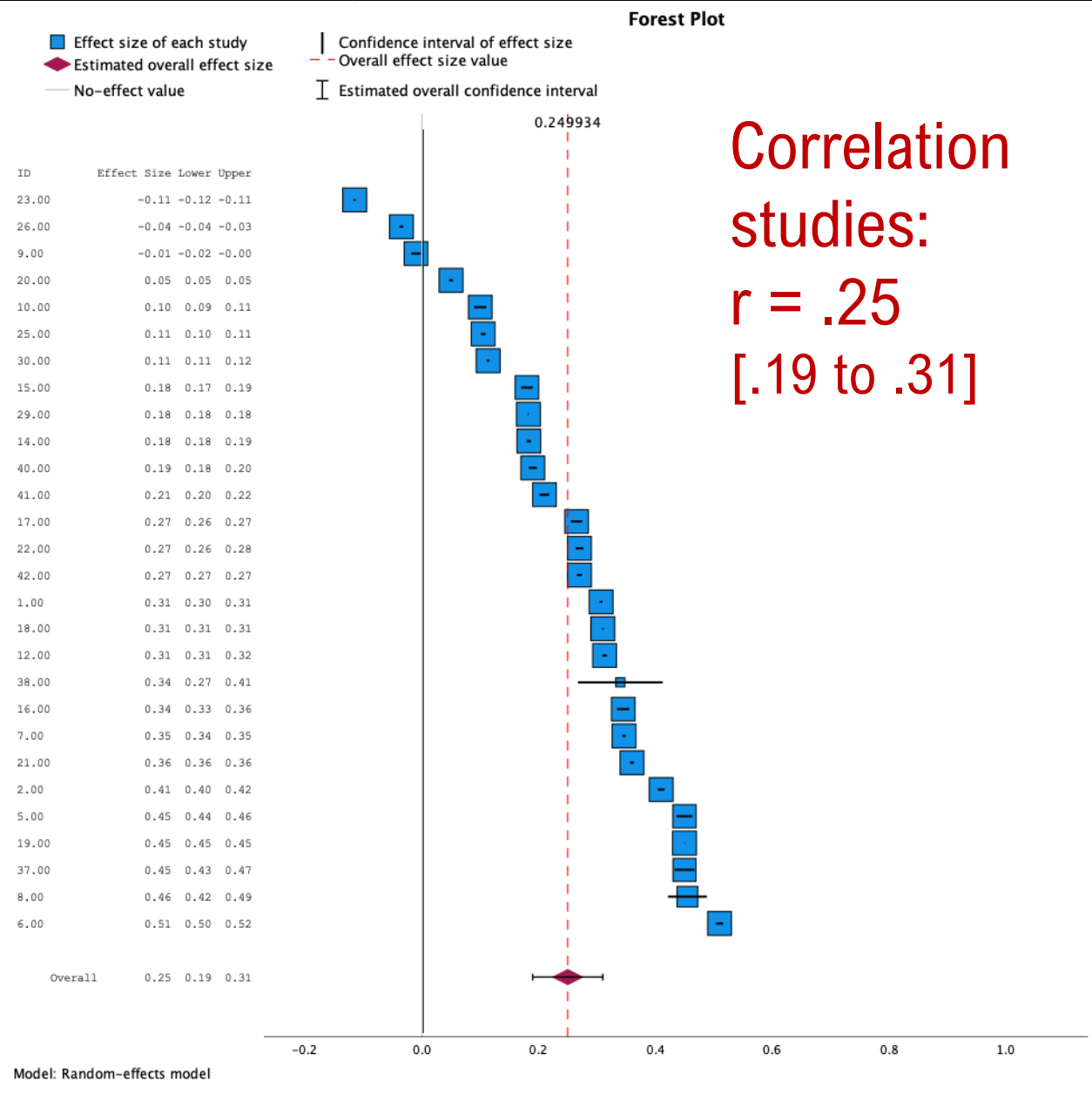
Meta-analyses of quantitative research on Hope and Climate Change Engagement

(Geiger, Swim, & Dwyer, R&R)

- Hope in abstract or title
- Climate change or Global warming.
- Engagement
 - Self-reported PEBs: motivation, intentions, willingness,
 - Actual PEBs,
 - Policy support,
 - Information seeking



Preliminary findings

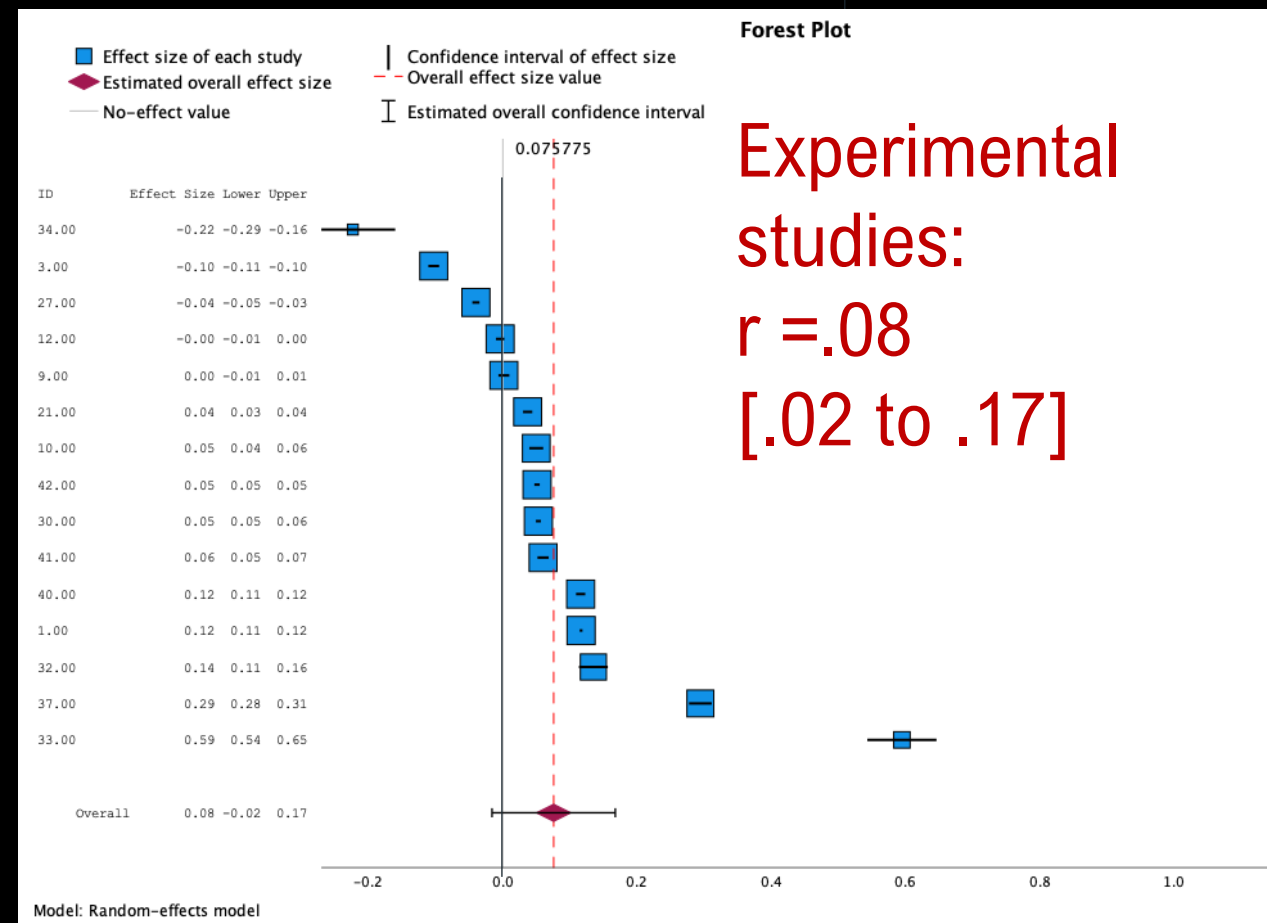
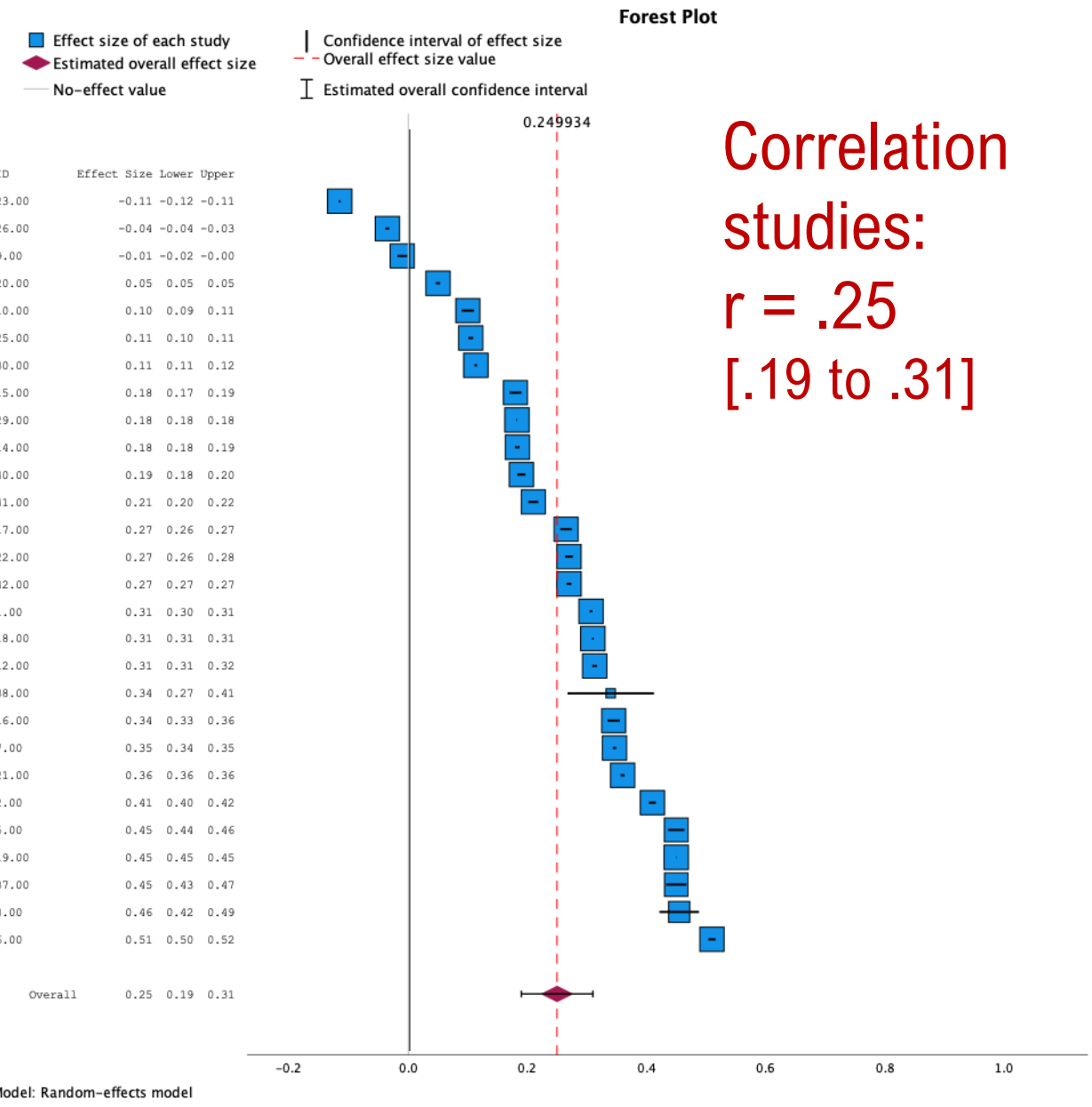


Different meanings of hope.

Within correlation studies....

Target of hope	r	95% CI	n
No problem	-.29	-.44 to -.12	4
About Climate change	.20	-.002 to .40	5
Hope about climate change being addressable	.34	.24 to .44	8
Hope about their ability to respond	.33	.23 to .42	5

Preliminary findings





Supporting water policies

- In the US, clean water protected by the clean water act of 1972
- Yet, threats to quality and quantity of clean water continue
- Moreover, threats are exacerbated by climate change

Emotions and water

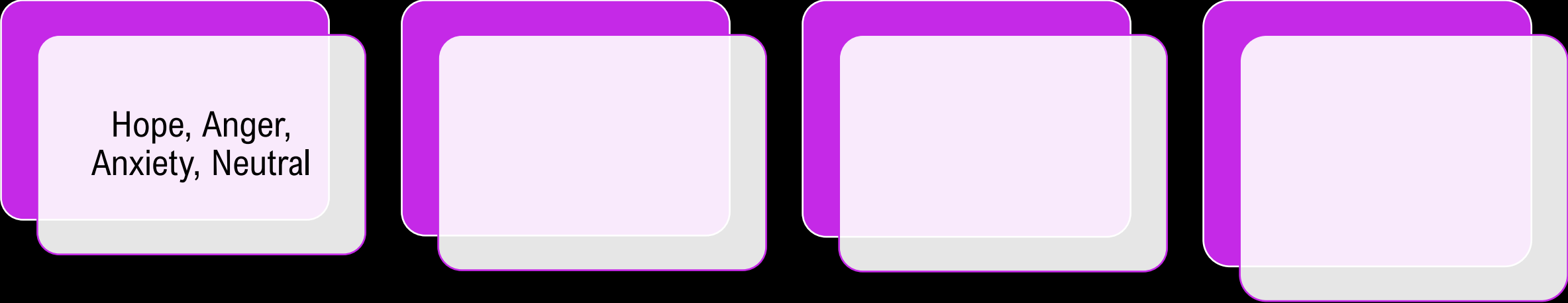
Swim, Guerrio, Gasper, DeCoster, & Lengieza (under review)

- Emotions can be strong – e.g., Flint water crises.
- No research on how emotions predict support for water policies.



Our research

Swim, Guerriero, Gasper, DeCoster, Lenguiza, under review.



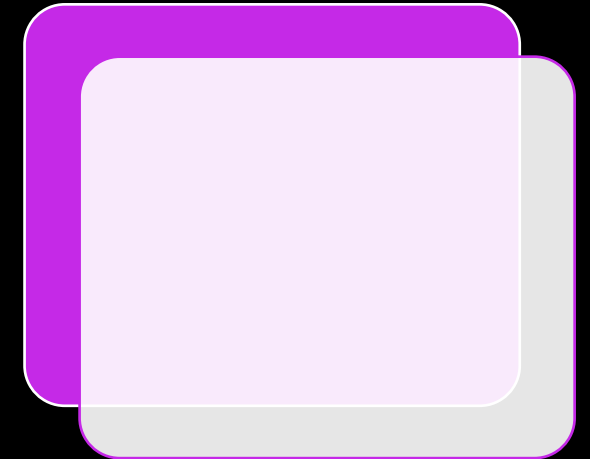
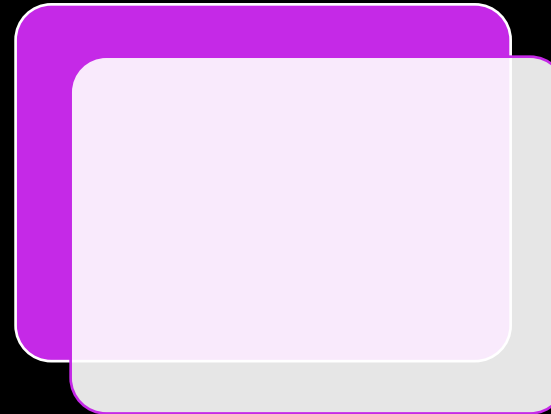
Hope, Anger,
Anxiety, Neutral

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Compares emotions
about water quality
vs. emotions about
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Tests whether
process information
(how policies
improve water
quality) Improves
support via
emotions.

Example policy

Name	Descriptive information	Process information
Create riparian buffers	<p>Riparian buffers are composed of trees and shrubs growing along shorelines located next to rivers, streams, lakes, and bays. Creating riparian buffers means planting more trees and shrubs along these shorelines.</p>	<p>Riparian buffers (trees and shrubs growing along shorelines) remove water pollutants (e.g., fertilizers) before water flows into rivers, streams, lakes, and bays. Creating riparian buffers means planting more trees and shrubs.</p>

Method

- Design: One between person factor (information) and ten policies nested within person
- Participants: 349 US residents
- Survey
 - 1) How do you feel about water quality where they live
 - 2) Read about ten different policies
 - Randomly assigned to Process vs. Descriptive information
 - 3) After each policy rated their emotions about and support for the policy
 - 3) Emotions were Hope, Anger, Anxiety, and Neutral emotions

Only neutral emotions about water quality predicting policy support

Emotions	Mean	B
Hope	1.89	-0.07
Anger	1.13	0.01
Anxiety	0.59	-0.05
Neutrality	1.46	-0.13**

Means from 0 (not at all) to 4 (very much)

All four feelings about water policy predicting policy support, with hope the strongest

Between person: Preference for policies, on average

Emotions	Mean	B
Hope	2.26	0.60***
Anger	0.24	-0.30**
Anxiety	0.61	-0.18*
Neutrality	0.82	-0.18***

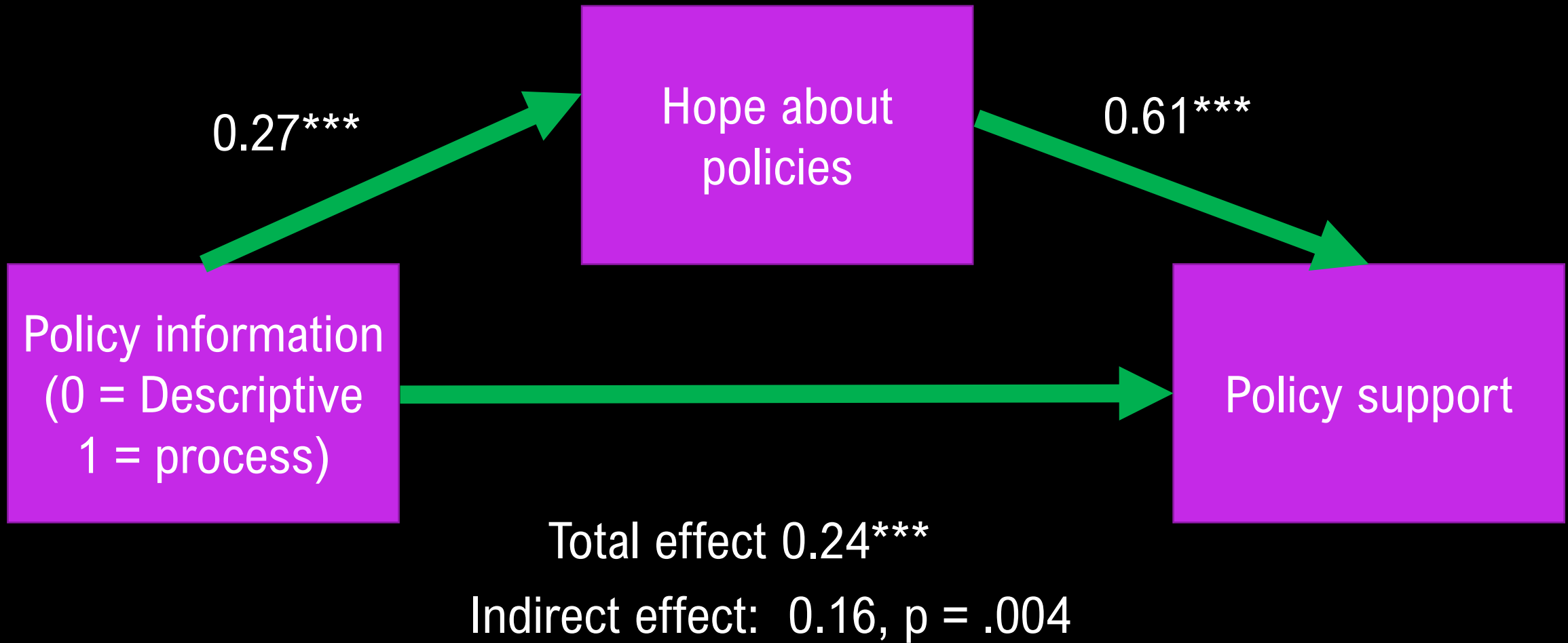
Within person: Preferences among policies

Emotions	Mean	B
Hope	1.32 to 2.85	0.87***
Anger	0.12 to 0.63	-0.27***
Anxiety	0.38 to 1.25	-0.35***
Neutrality	0.72 to 1.05	-0.04

Means from 0 (not at all) to 4 (very much)

Emotions about water policies were more predictive than emotions about water quality.

Process information improves policy support via its impact on hope



Reflections on Research

HOPE IN CONTEXT
PROBLEMS & SOLUTIONS

WITHIN PERSON DESIGNS

SYSTEMS/ PROCESS
INFORMATION



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