Big Bodies/Small World
## Biocultural perspectives on weight stigma

Alexandra Brewis (Slade)

Basic model – wealth and weight

Weight Gain

Resources support
excellent nutrition and exercise

Too poor to gain weight

Poverty-Wealth Gradient
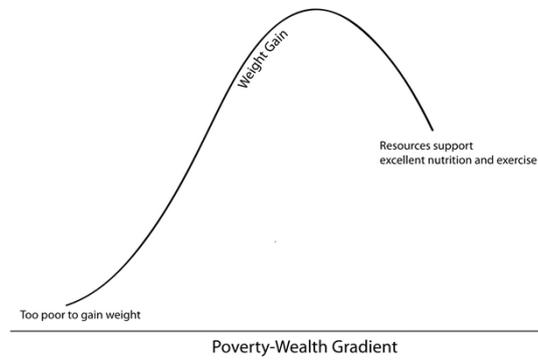
Bodies are getting fatter, globally
Big bodies are becoming normative
Weight has u-shaped relationship with wealth

Q: How does this relate to shifting body norms?
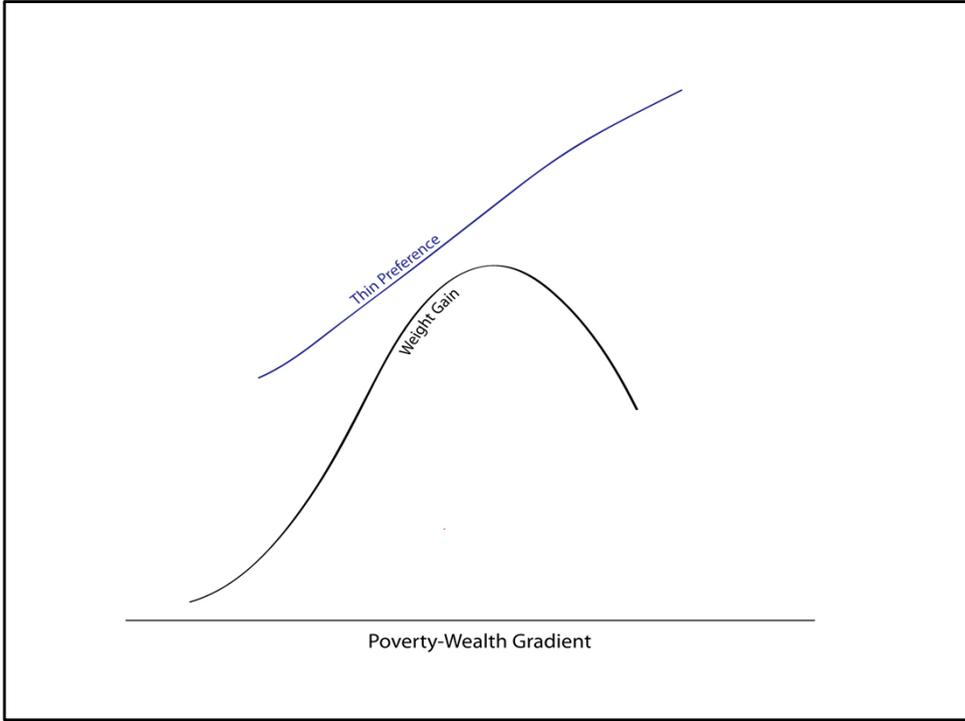
# Weight stigma

Lazy
Dirty
Unsexy
Weak-willed
Inept
Irresponsible
Impulsive

- Focuses on the role of the individual blame in obesity
- Pervasive, moralizing, powerful
- Tied to body as an identity anchor
- Predicts discrimination

How can Obesity Stigma Reproduce Obesity?
Through at least four possible pathways

OBESITY

Obesogenic behaviors

Constrained exercise, diet, health care options

Physiological stress

Avoid stigmatizing situations

Fetal developmental adjustments

Exposure to obesogenic environments

Feeling stigmatized & Being discriminated against

Worse maternal condition

Blocked access & opportunity

Uncertainty, Insecurity & Poverty

Intergenerational epigenetic pathway

Biosocial stress pathway

**Structural exclusion pathway**

Behavioral pathway

Study 1: Global Survey 2009-10
with Amber Wutich

- 11 countries
- Convenience sample
- Cultural survey tool
  - Developed ethnographically
  - Used consensus analysis to test for shared understandings across places
  - Interview-based study

Prevalence of obesity (%)

<10

10–19.9

20–29.9

≥30

Data not available

Not applicable

* BMI ≥30kg/m2

Average Fat-stigma Score

Paraguay, American Samoa

England, NZ

USA

East Africa

Fat Stigma

Weight Gain

Poverty-Wealth Gradient

Thin preference

Fat Stigma

Weight Gain

Poverty-Wealth Gradient
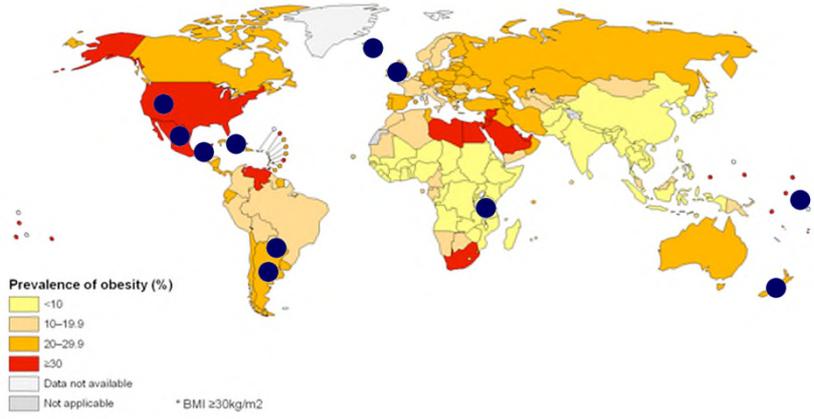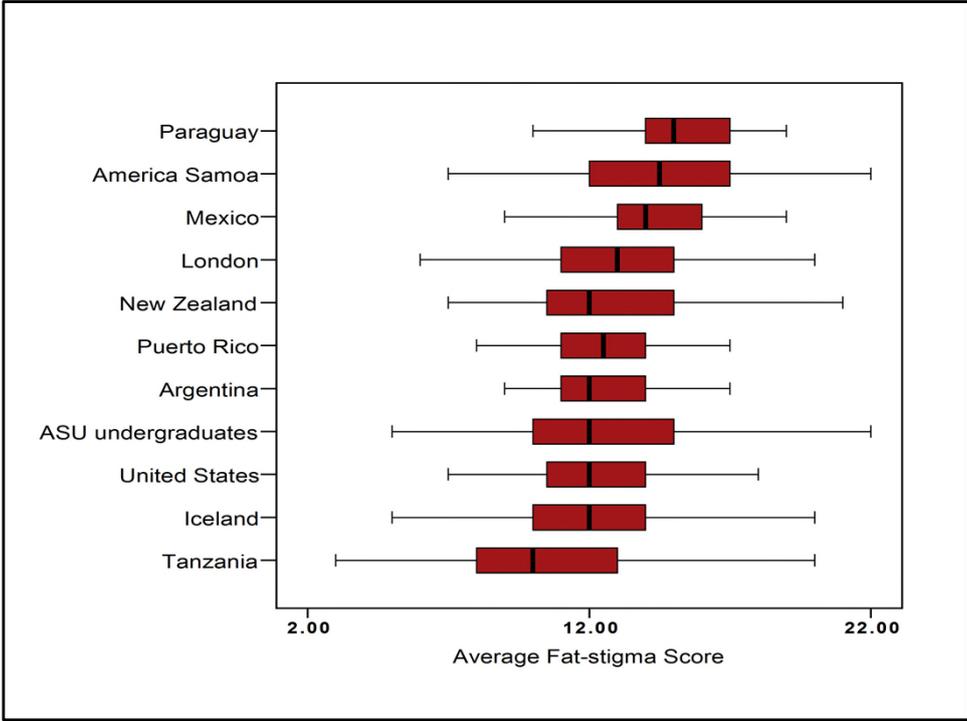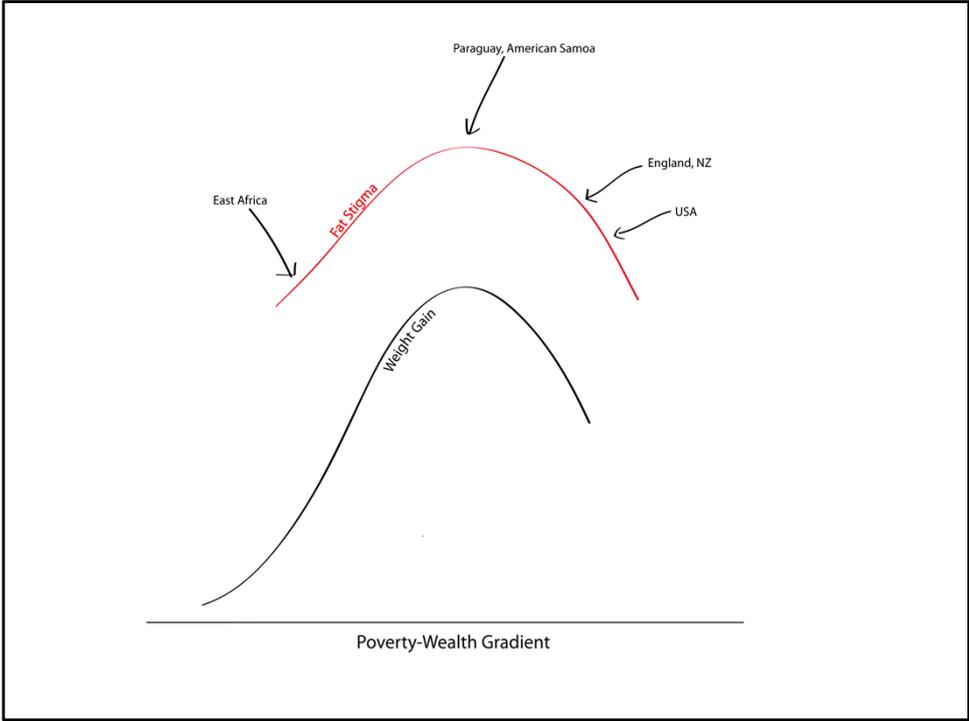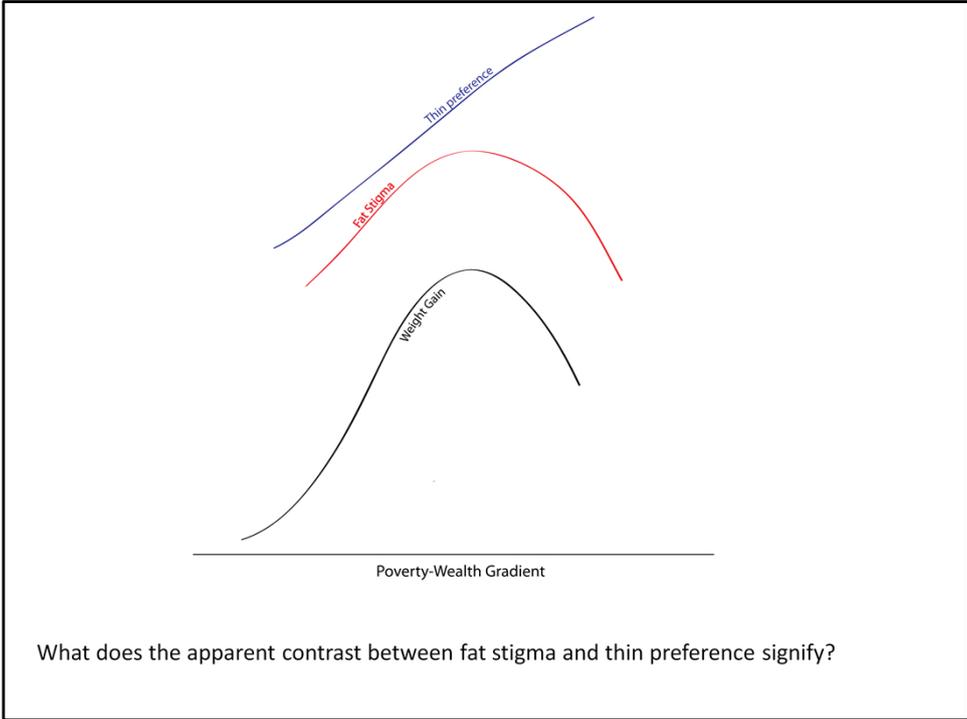
What does the apparent contrast between fat stigma and thin preference signify?

Study 2 and 3: Implicit *vs* Explicit Stigma

Prevalence of obesity (%)
- <10
- 10–19.9
- 20–29.9
- ≥30
- Data not available
- Not applicable

* BMI ≥30kg/m2

ASU school of human evolution & social change
ARIZONA STATE UNIVERSITY
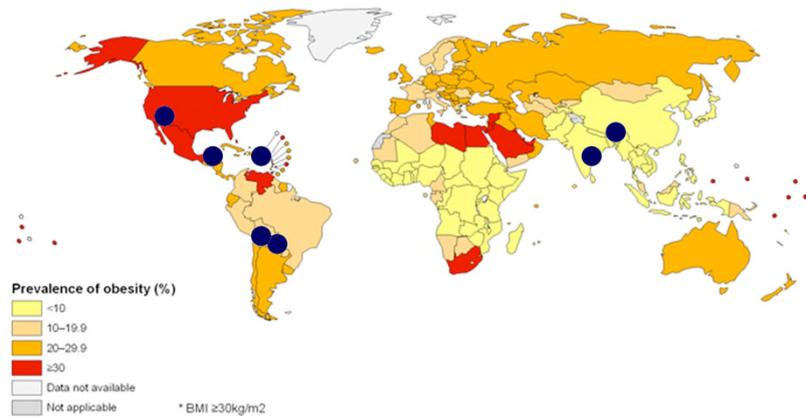
Key Biocultural Body Variables

- BMI
- Explicit Stigma: *Attitudes to Obese People Scale*
- Implicit Stigma*: Implicit Attitude Test*

Demographics – age, gender, ethnicity
SES– parents education, how paying for college, perceived wealth standing.
Mobility Aspirations – created 2 variables via PCA related to extrinsic factors vs intrinsic, and how likely students thought they would be to reach goals
Perceived treatment related to looks
Perceived discrimination specifically related to weight
Exercise and dietary behaviors and practices, perceived health

Pencil and Paper

Table 1: Example of the IAT format using categorization of fat versus thin and good versus bad (this one: fat people good; thin people bad), with correct respondent checks.

Fat People		Thin People
Good		Bad
✓	obese	
	horrible	✓
	slim	✓
✓	excellent	
✓	large	
	nasty	✓
✓	fat	
✓	joyful	
	thin	✓
✓	wonderful	
	skinny	✓
	terrible	✓
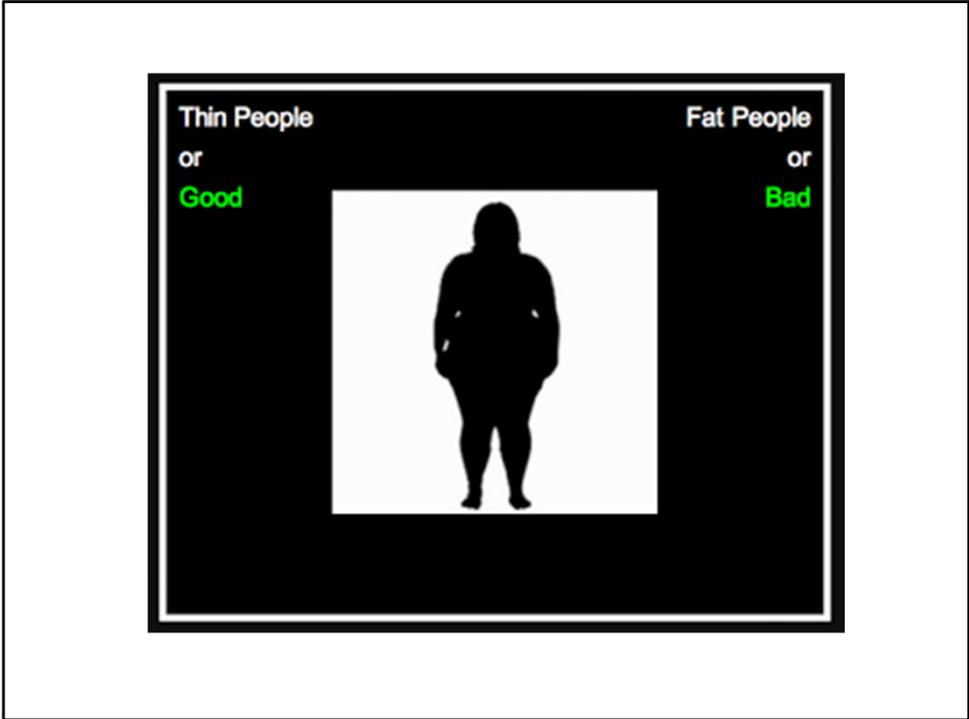
"Attitude to Obese People" scores

Implicit Fat-Stigma (IAT*100)

US Undergraduates	Paraguay	Belize	Nepal	Jamaica

WHAT PEOPLE THINK

WHAT PEOPLE SAY

Political Correctness

Fat Stigma

Weight Gain

Poverty-Wealth Gradient

Can upward mobility explain within population variation?
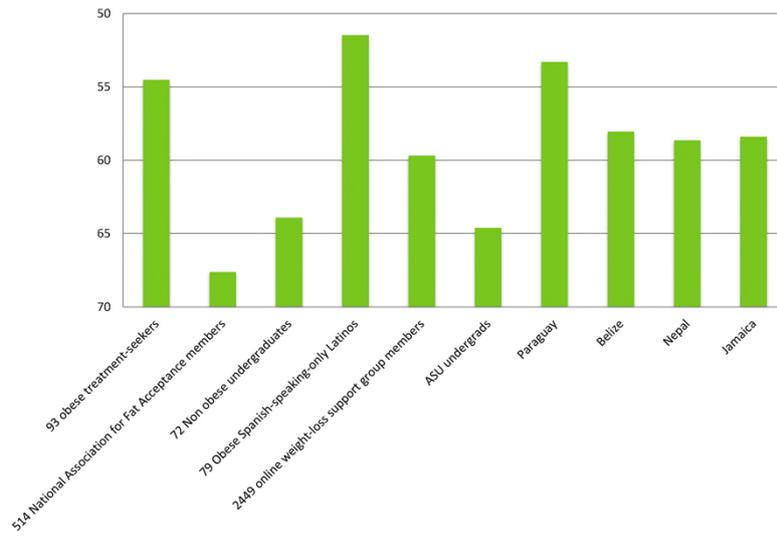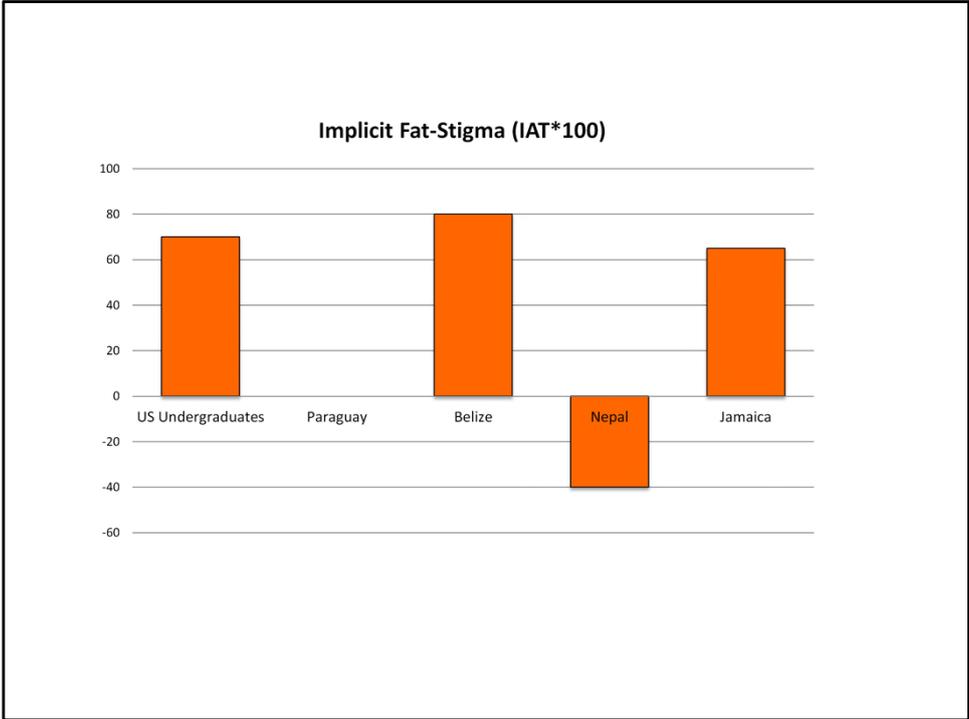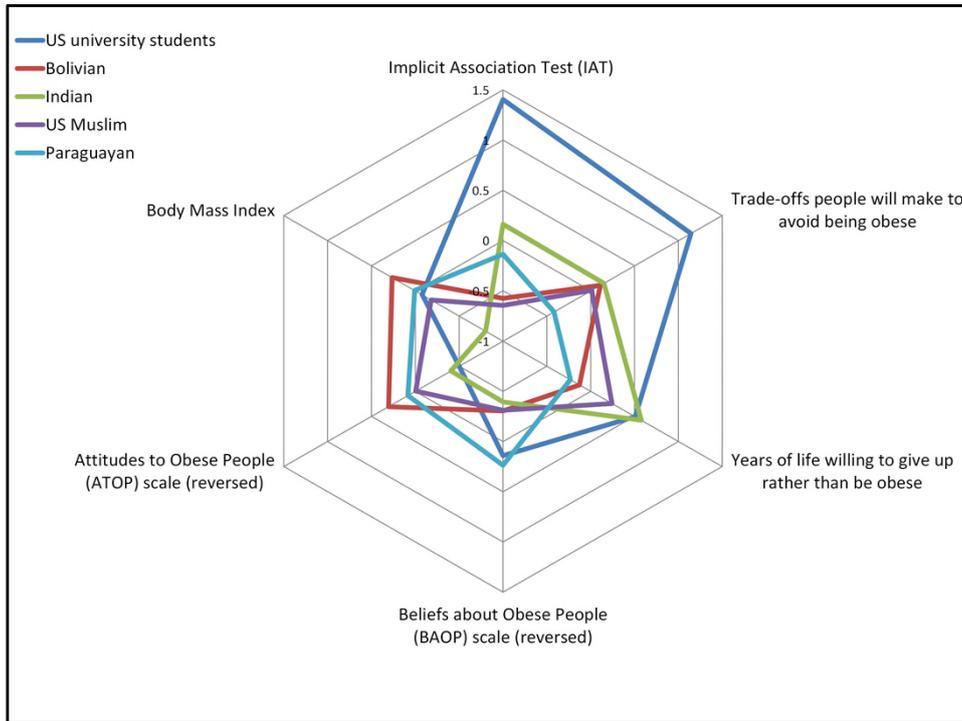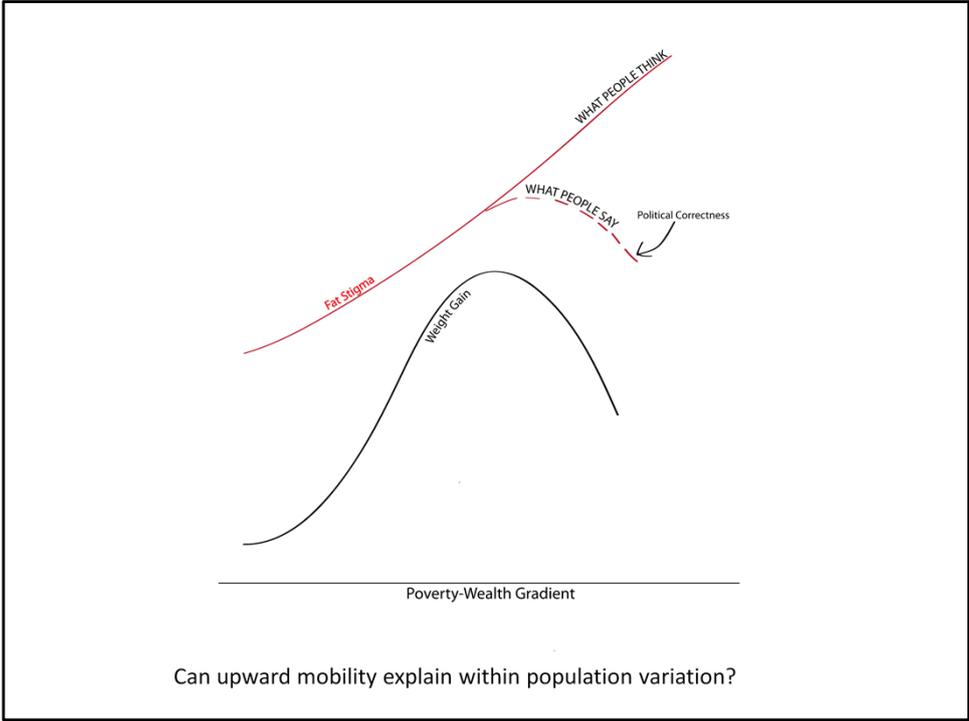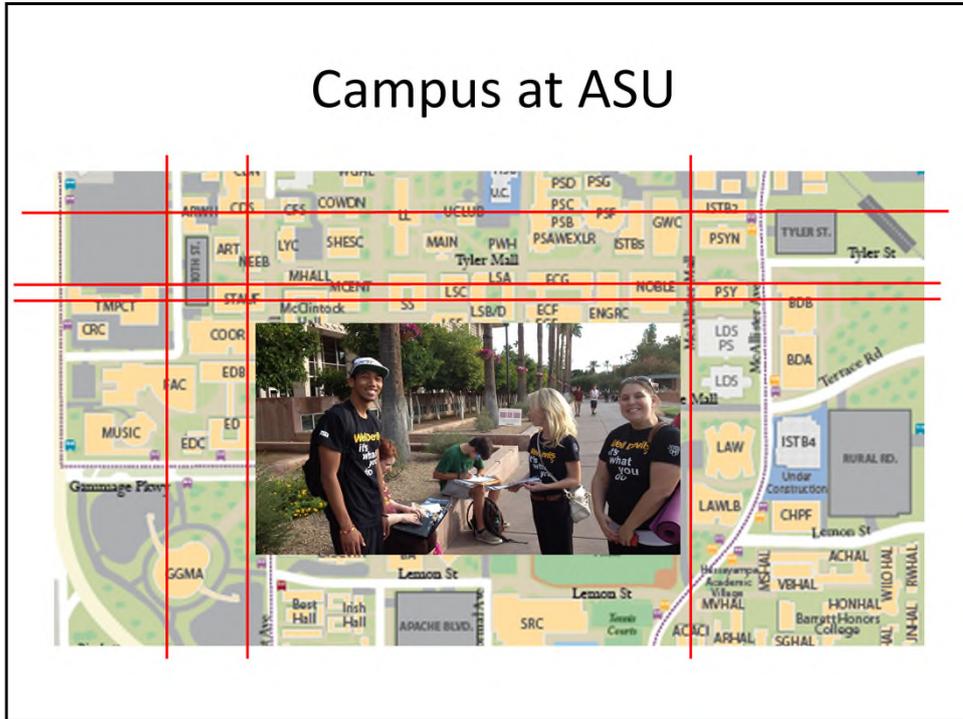
Recruited 114 female and 110 male students for surveys
Used randomized spatial sampling on campus
Demographics match ASU: 28.7% minority, 36.6% are 1st generation
Largest public university in US, SES demographics match state.
Also did focus groups and purposive sampling with free listing

Model 1: Role of upward mobility in shaping fat-stigma

PREDICTORS

Aspirations
Family SES
Predicted income
Minority Status
BMI (body size)
Age
Gender

OUTCOMES

Implicit Fat Stigma

Explicit Fat Stigma

Thin Idealism
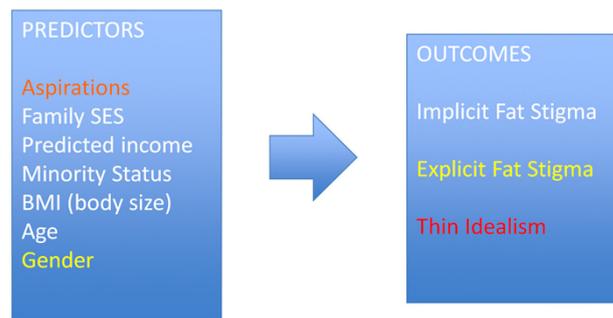
No correlation between implicit and explicit measures of fat-stigma – per Krieger for racism (=0.47, NS)

Explicit (ATOP) is predicted by ….. Gender (-ve – goes up with maleness), 1st factor aspirations only (-ve)

None of the usual suspects explain levels of implicit fat stigma (IAT), only gender and 1st factor aspirations explain variation in ATOP

Thin idealism (lower stunkard) is predicted by lower BMI, lower fame aspirations, once you take into account family background, etc

The results for thin idealism are exactly what we assumed theoretically from thin idealism literature – they do not seem to also work for fat aversion.

Model 2: Effects of Stigma on Health Variables

PREDICTORS/
COVARIATES

Implicit Stigma
Explicit stigma
Thin ideals

Aspirations
Family SES
Predicted income
Minority Status
BMI (body size)
Age
Gender

OUTCOMES

Attractiveness effort – Diet

Attractiveness effort – Exercise
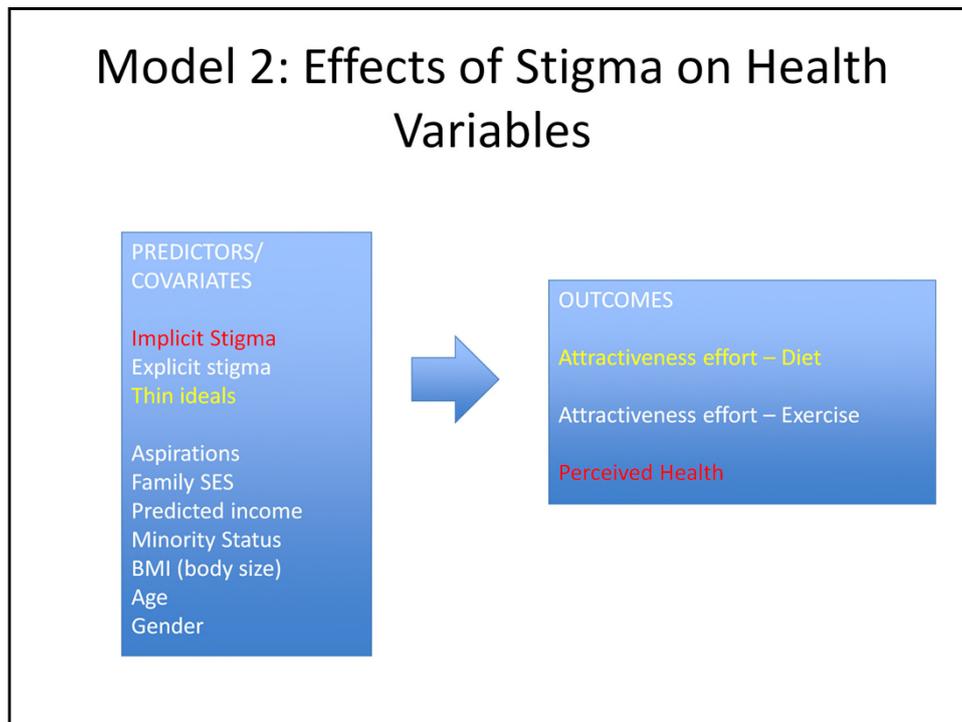
Perceived Health

Looking at health relevant behaviors
> Effort spent on controlling eating behaviors is predicted by Stunkard ideals but not anti-fat ideals
> None of the ideals/beliefs variables predict exercise behavior

Looking at perceived health..
> Anti-fat beliefs (IAT, years traded) predicts significantly better reported health (Multiple regression, $p<0.05$). ATOP does not
> Pro-thin ideals (Stunkard) do not

Some Answers to our Questions

- What shapes variation in fat-stigma?
  - Need better theories
- How is fat-stigma related to own body size?
  - Being fatter and experiencing discrimination does not decrease own stigma
- Is fat-fear linked to variation in behaviors around diet and exercise?
  - To food, perhaps
- How are these linked to upward mobility and aspirations?
  - Not in any instantly obvious way

Study 4: Guatemala study
(with Jonathan Maupin)
223 children aged 8-12 years

How does local ecology (food insecurity) shape the emergence of fat and thin preferences?

Character Attribution Task

Positive Attributes (Proportion Selecting Attribute)

Legend: Average Body, Thin Body, Fat Body

Categories: Happy, Hard worker, Strong, Healthy, Intelligent, Sociable, Nice, Active

Negative Attributes

Categories: Bad character, Angry, Low self-esteem, Ugly, Lazy, Sick, Depressed
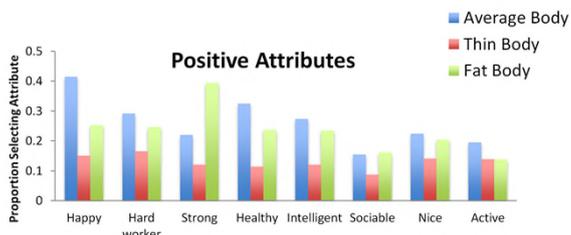
Obese figures: more negative items
Average figures: more positive
Thin figures: most negative

Food insecurity predicted thin-avoiding norms; children prefer average bodies

Preference for average sizes

Thin Preference

Fat Stigma

Weight Gain

Poverty-Wealth Gradient
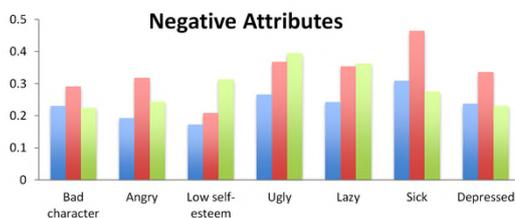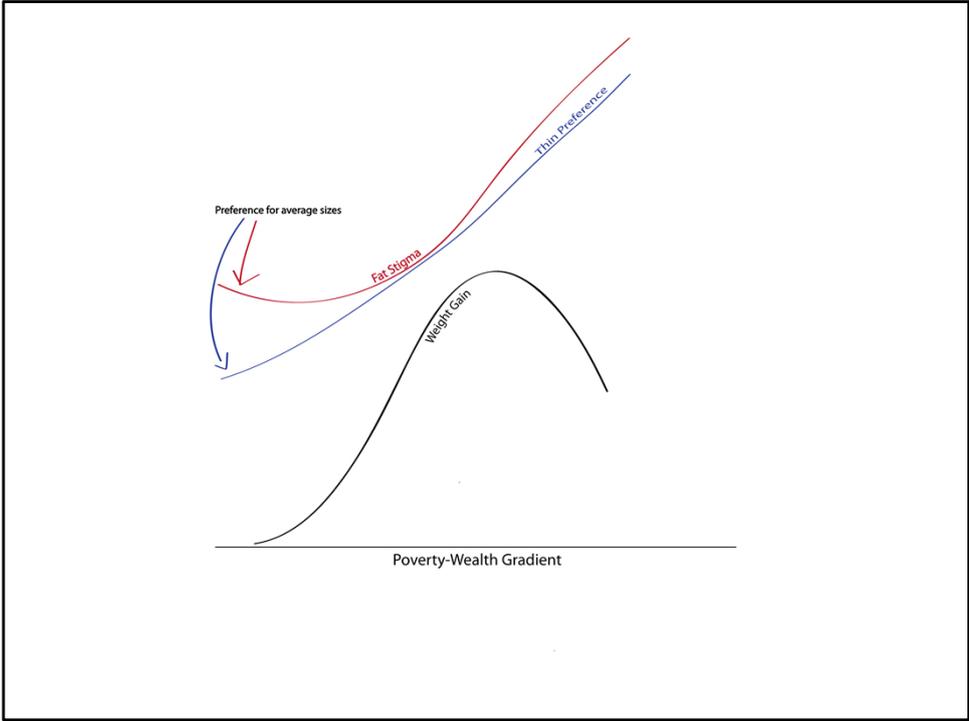
- Identify, test, and share innovative, scalable obesity solutions that work in the real world.
- Reduce obesity risk, with focus on diverse Arizona communities (including @ ASU).
- How does the intersection of stigma, weight, race, and wealth/poverty play out for individuals in diverse *clinical settings*?
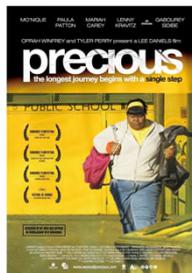
The End

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