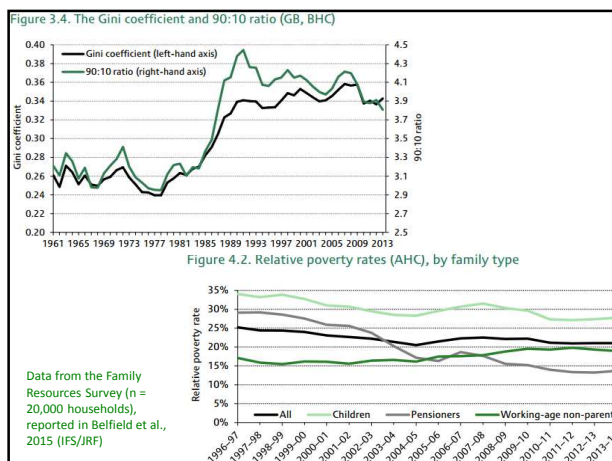
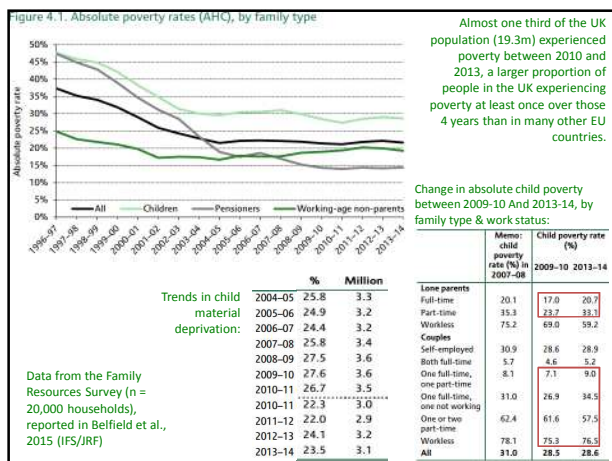


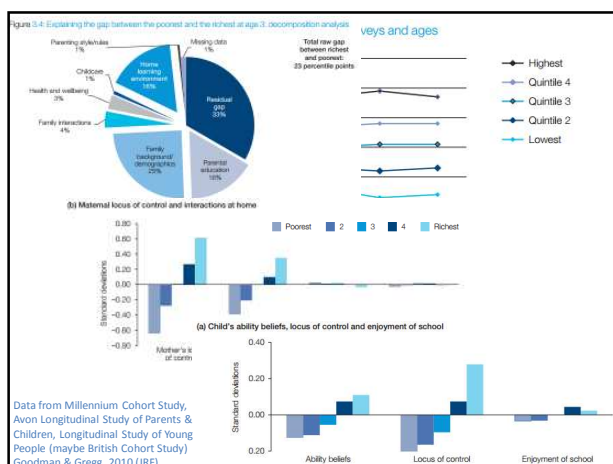
A framework for the psychology of low socioeconomic status

19th April 2016

Dr Jennifer Sheehy-Skeffington

UCL Educational Psychology Leading Edge Day





The Educational Psychologist's Questions:

- What are the implications for school education of:
 - enduring levels of poverty and material deprivation?
 - rising inequality and salience of relative deprivation?
- What underlies the persistent income-achievement gap in education?
- Why don't low SES parents do more to encourage their child's intellectual development?



Wider Society's Questions:

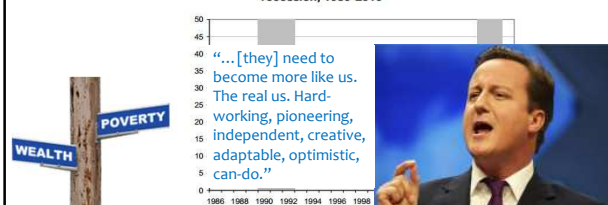
- What are the psychological consequences of being poor in a rich country?
- Why don't the poor do more to get ahead?



Wider Society's Questions:

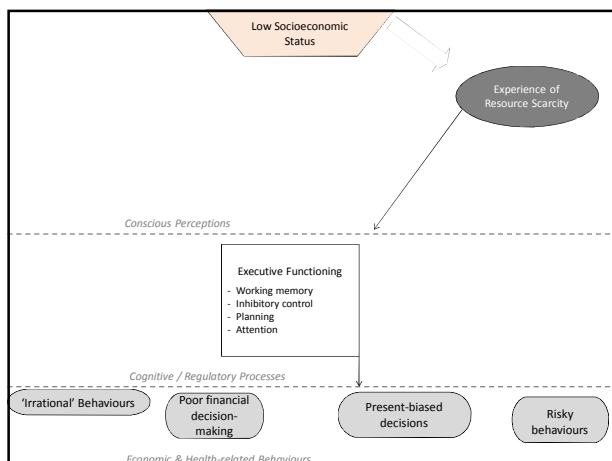
- What are the psychological consequences of being poor in a rich country?
- Why don't the poor do more to get ahead?
 - Deficient values?
 - Lazy or irrational?

Figure 2.8 Views on causes of people living in need by UK experience of recession, 1986-2010

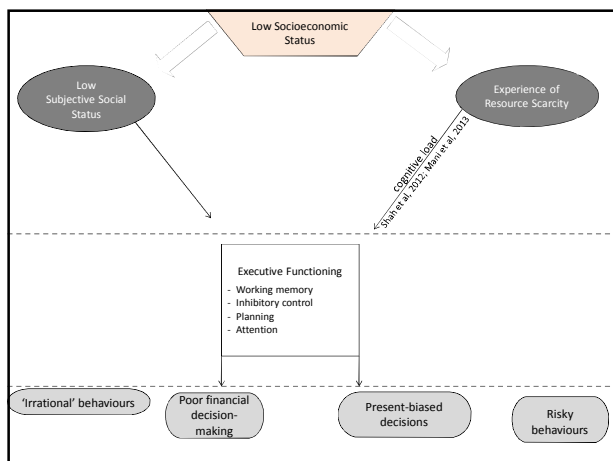
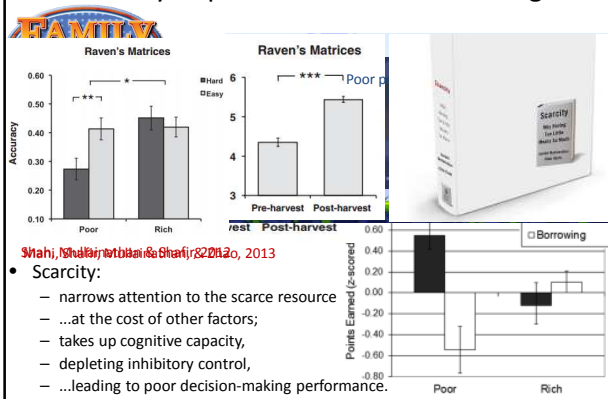


Wider Society's Questions:

- What are the psychological consequences of being poor in a rich country?
- Why don't the poor do more to get ahead?
 - Deficient values?
 - Lazy or irrational?
- Psychological situation of poverty:
 - Scarcity is stressful and cognitively disruptive
 - Low subjective social status should be so too
 - Resulting behavioural responses are understandable...
 - ...and perhaps even adaptive.



Scarcity Impairs Executive Functioning



Distracted Looking Up

Priming low socioeconomic status impairs executive functions



Study 1: Low Educational Status & Inhibitory Control / Goal Focus

Sheehy-Skeffington & Sidanius, 2015

- Online U.S. sample (n = 54)
- Education status:
 - *High Status*:
“Comparison with United States Census data indicates that you are more educated than 70% of working Americans.”
 - *Low Status*:
“Comparison with United States Census data indicates that you are less educated than 70% of working Americans.”
- Stroop task

RED

BLUE

RED

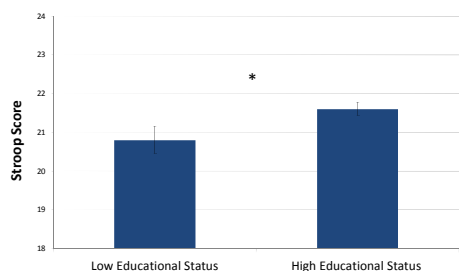
Study 1: Low Educational Status & Inhibitory Control / Goal Focus

Sheehy-Skeffington & Sidanius, 2015

RED

BLUE

RED



holds controlling for objective educational status

$t(52) = -2.1, p = .04, \text{Cohen's } d = 0.7$

Study 2: Low Socioeconomic Status & Planning

Sheehy-Skeffington & Sidanius, 2015

80, placing you above 80% of Americans in terms of social status.

The computer has gathered your background characteristics and entered them into a summary score of your socioeconomic status.

The resulting score is...

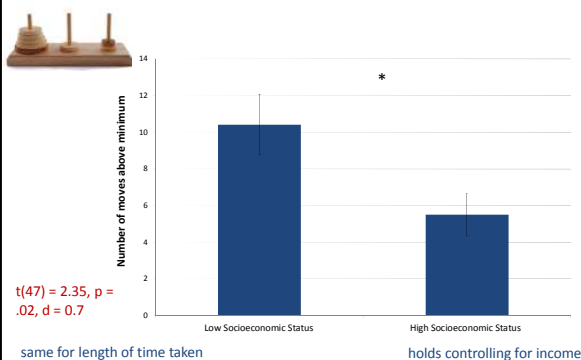
30, placing you in the bottom 30% of Americans in terms of social status



- Low income Boston sample (n = 49)
- Ladder manipulation of social status
- Tower of Hanoi task

Study 2: Low Socioeconomic Status & Planning

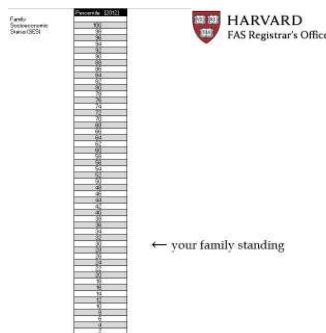
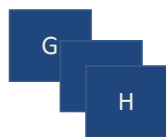
Sheehy-Skeffington & Sidanius, 2015



Study 3: Low Socioeconomic Status & Working Memory / Updating

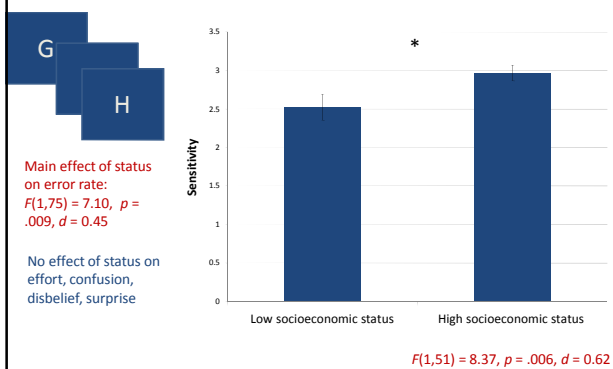
Sheehy-Skeffington & Sidanius, 2015

- American undergraduate sample ($n = 80$)
- Adapted ladder
- 2-back task



Study 3: Low Socioeconomic Status & Working Memory / Updating

Sheehy-Skeffington & Sidanius, 2015



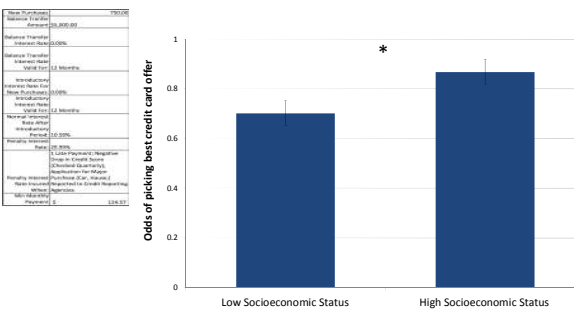
Study 3: Low Socioeconomic Status & Complex Financial Decision-Making

Sheehy-Skeffington & Sidanius, 2015

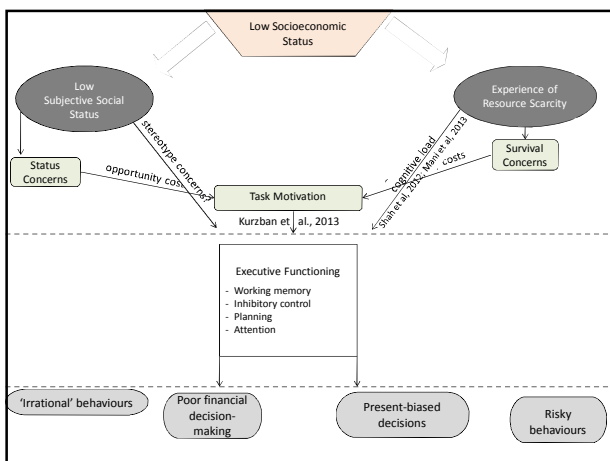
New Purchases	750.00	New Purchases	750.00	New Purchases	750.00
Balance Transfer	Amount: \$5,000.00	Balance Transfer	Amount: \$5,000.00	Balance Transfer	Amount: \$5,000.00
Interest Rate	2.99%	Interest Rate	0.00%	Interest Rate	0.00%
Balance Transfer	Interest Rate	Balance Transfer	Interest Rate	Balance Transfer	Interest Rate
Valid For:	18 Months	Valid For:	12 Months	Valid For:	24 Months
Introductory	Introductory interest	Introductory	Introductory interest	Introductory	Introductory interest
Interest Rate For	New Purchases: 8.79%	Interest Rate For	New Purchases: 0.00%	Interest Rate For	New Purchases: 0.00%
Introductory	Introductory interest	Introductory	Introductory interest	Introductory	Introductory interest
Interest Rate	Valid For: 18 Months	Interest Rate	Valid For: 12 Months	Interest Rate	Valid For: 12 Months
Normal Interest	Rate After	Normal Interest	Rate After	Normal Interest	Rate After
Rate After	Introductory	Rate After	Introductory	Rate After	Introductory
Period:	11.79%	Period:	10.59%	Period:	9.69%
Penalty interest	Rate:	Penalty interest	Rate:	Penalty interest	Rate:
Rate:	25.99%	Rate:	25.99%	Rate:	27.99%
1 Late Payment; Negative	Drop in Credit Score	1 Late Payment; Negative	Drop in Credit Score	1 Late Payment; Negative	Drop in Credit Score
(Checked Quarterly);	Excessive Credit Application;	(Checked Quarterly);	Application for Major	(Checked Quarterly);	Application for Major
Penalty interest	Must Open Checking	Penalty interest	Purchase (Car, House)	Penalty interest	Purchase (Car, House)
Rate Incurred	Account & Have Direct	Rate Incurred	Reported to Credit Reporting	Rate Incurred	Reported to Credit Reporting
When:	Deposit	When:	Agencies	When:	Agencies
Min Monthly	Payment:	Min Monthly	Payment:	Min Monthly	Payment:
Payment:	\$ 123.43	Payment:	\$ 124.57	Payment:	\$ 122.66

Study 3: Low Socioeconomic Status & Complex Financial Decision-Making

Sheehy-Skeffington & Sidanius, 2015



Wald = 6.27, $p = .01$, $Exp(B) = 0.16$



Status Relevance as a Moderator of the Effects of Perceived SES on Cognitive Performance?

- Receiving low SES feedback is a status threat
- Low SES prime orients cognitive resources toward status
 - Irrelevant cognitive task?
 - Attention & performance motivation low
 - Cognitive task framed as *relevant to later gains in SES*
 - Those low in SES should exhibit just as good, if not better, performance

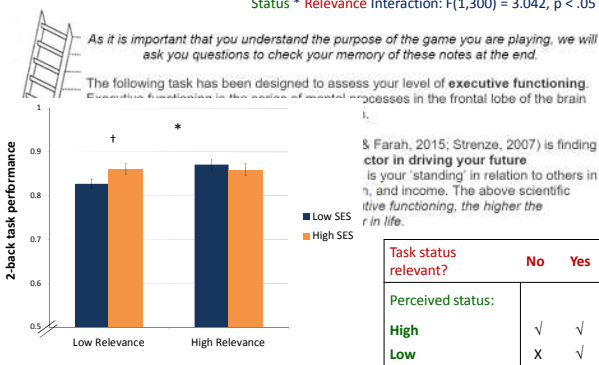


Task status relevant?	No	Yes
Perceived status:		
High	✓	✓
Low	X	✓

Task relevance as a moderator – online with the 2-back task

Sheehy-Skeffington & Price, 2016

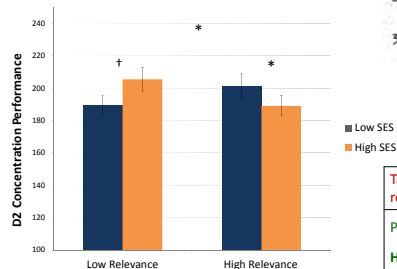
Status * Relevance Interaction: $F(1,300) = 3.042, p < .05$



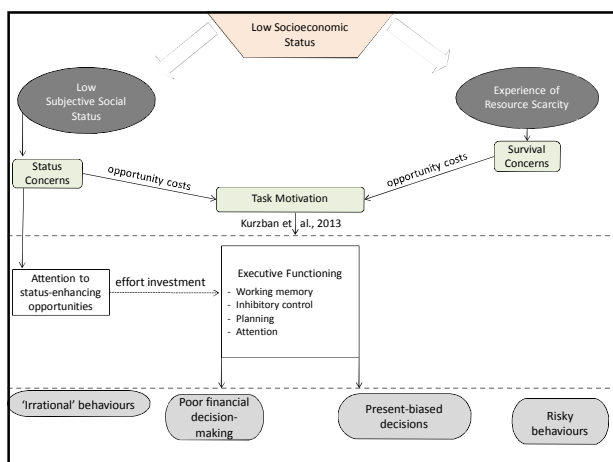
Task relevance as a moderator – in lab with the D2 test of attention

Sheehy-Skeffington & Price, 2016

Status * Relevance interaction on concentration performance: $F(1,120) = 7.45, p < .01$



Task status relevant?	No	Yes
Perceived status:		
High	✓	✓
Low	X	✓

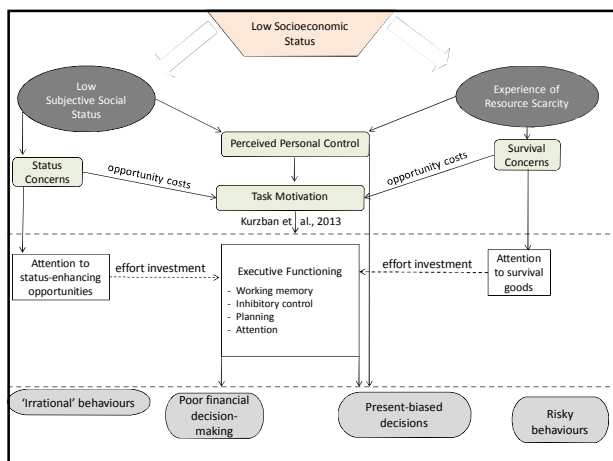


Fitness Relevance as a Moderator of the Effects of **Resource Scarcity** on Cognitive Performance?

- All participants fast for 12
- Half eat breakfast
- Cognitive measures
 - Food v. non-food reward
 - Food v. non-food stimuli
- Blood sugar measureme



Sheehy-Skeffington, Price, Scott, & Pound, 2016



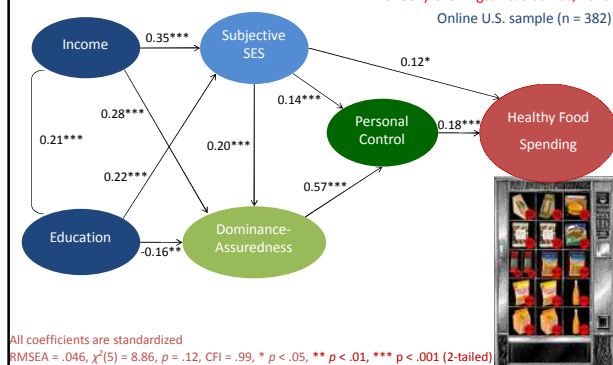
Out of My Hands

Low socioeconomic status diminishes personal sense of control



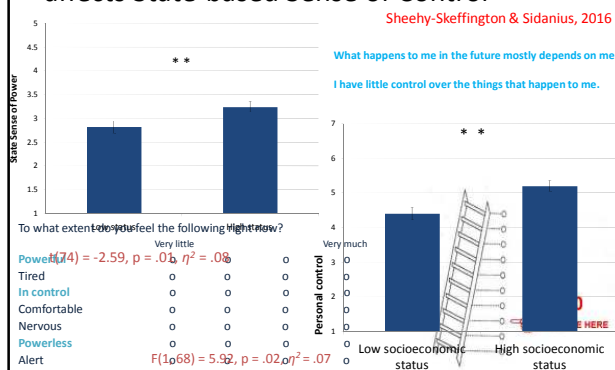
Study 1: Objective SES is linked to unhealthy food spending via subjective SES and personal control

Sheehy-Skeffington & Sidanius, 2016
Online U.S. sample (n = 382)



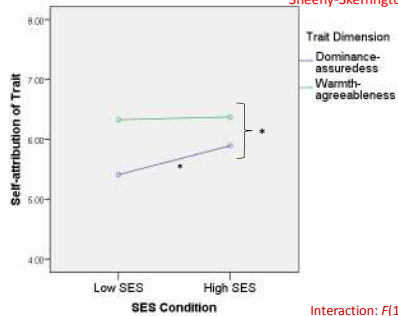
Study 2a: Subjective Socioeconomic Status Affects Trait Personal Control

Sheehy-Skeffington & Sidanius, 2016



Study 3a: Subjective SES affects Self-attribution of Control-related Traits, not Overall Self-regard

Sheehy-Skeffington & Sidanius, 2016



Interaction: $F(1,121) = 3.81, p = .05$
 Simple effect on Dominance-assuredness: $F(1,121) = 4.15, p = .04$

Study 3b: Negative Status Feedback, not any Negative Feedback, drives down Sense of Control

Sheehy-Skeffington & Sidanius, 2016

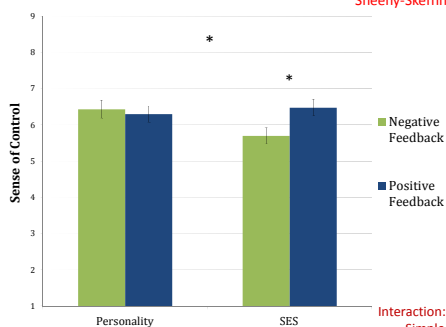
This study is investigating new aspects of personality.
 The computer has entered your preferences and values information
 into a summary calculation of your openness to joy.

The resulting score is:



Study 3b: Negative Status Feedback, not any Negative Feedback, drives down Sense of Control

Sheehy-Skeffington & Sidanius, 2016



Interaction: $F(1,164) = 3.93, p = .05$
 Simple effect at SES condition: $F(1,164) = 6.00, p = .02$

Study 4: Implicit Priming of Subjective SES affects Self-attribution of Control-related Traits

Please indicate your income: Sheehy-Skeffington & Sidanius, 2016

☐ Less than \$5 000
☐ Between \$5 000 and \$10 000
☐ Between \$10 000 and \$20 000 HIGH STATUS
☐ Between \$20 000 and \$30 000
☐ Between \$30 000 and \$40 000
☐ Above \$40 000

Please indicate your income:

☐ Less than \$10 000
☐ Between \$10 000 and \$20 000 CONTROL
☐ Between \$20 000 and \$40 000
☐ Between \$40 000 and \$60 000
☐ Between \$60 000 and \$80 000
☐ Above \$80 000

LOW STATUS

Please indicate your income:

☐ Less than \$80 000
☐ Between \$80 000 and \$100 000
☐ Between \$100 000 and \$250 000
☐ Between \$250 000 and \$500 000
☐ Between \$500 000 and \$1m
☐ Above \$1m

Study 4: Implicit Priming of Subjective SES affects Self-attribution of Control-related Traits

Please indicate your income: Sheehy-Skeffington & Sidanius, 2016

☐ Less than \$5 000
☐ Between \$5 000 and \$10 000
☐ Between \$10 000 and \$20 000 HIGH STATUS
☐ Between \$20 000 and \$30 000
☐ Between \$30 000 and \$40 000
☒ Above \$40 000

Please indicate your income:

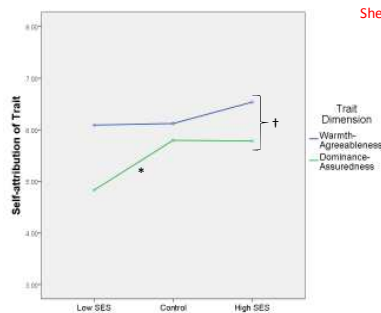
☐ Less than \$10 000
☐ Between \$10 000 and \$20 000 CONTROL
☒ Between \$20 000 and \$40 000
☐ Between \$40 000 and \$60 000
☐ Between \$60 000 and \$80 000
☐ Above \$80 000

LOW STATUS

Please indicate your income:

☒ Less than \$80 000
☐ Between \$80 000 and \$100 000
☐ Between \$100 000 and \$250 000
☐ Between \$250 000 and \$500 000
☐ Between \$500 000 and \$1m
☐ Above \$1m

Study 4: Implicit Priming of Subjective SES affects Self-attribution of Control-related Traits



Mixed-model interaction:

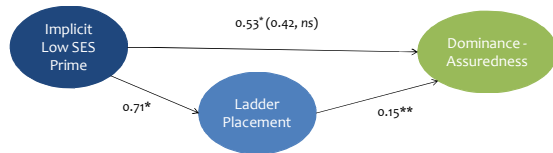
$F(2, 80) = 3.01, p = .06$

Simple effect of SES on dominance-assuredness:

$F(2, 82) = 4.45, p = .02$

Study 4: Implicit Priming of Subjective SES affects Self-attribution of Control-related Traits

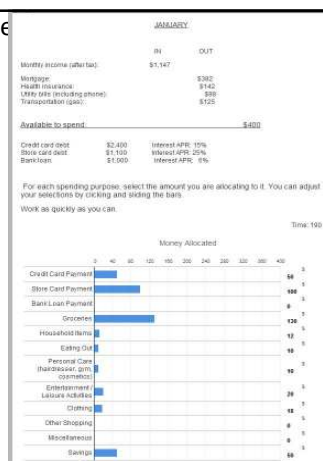
Sheehy-Skeffington & Sidanius, 2016



Indirect effect $b = 0.11$, bias-corrected 95% CI: 0.003, 0.315. * $p < .05$

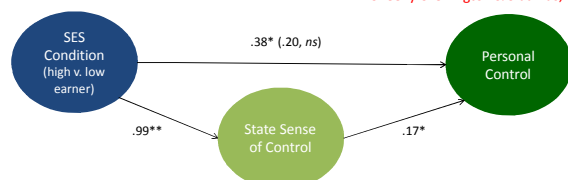
Study 5: Experiencing Resource Scarcity affects Sense of Control

- Spending scenario
 - Fixed expenditure
 - Debts
 - Spending options
 - High v. low SES
 - Linked to real characteristics
 - Feedback
- State sense of control, Trait personal control



Study 5: Experiencing Resource Scarcity affects Sense of Control

Sheehy-Skeffington & Sidanius, 2016



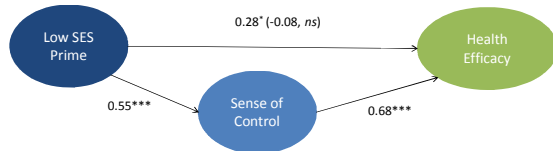
indirect effect $b = 0.17$, bias-corrected 95% CI: .01, .47

...and this matters for perceptions of health efficacy

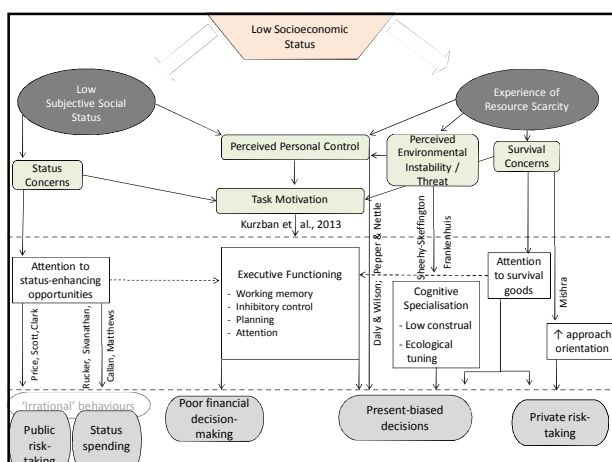
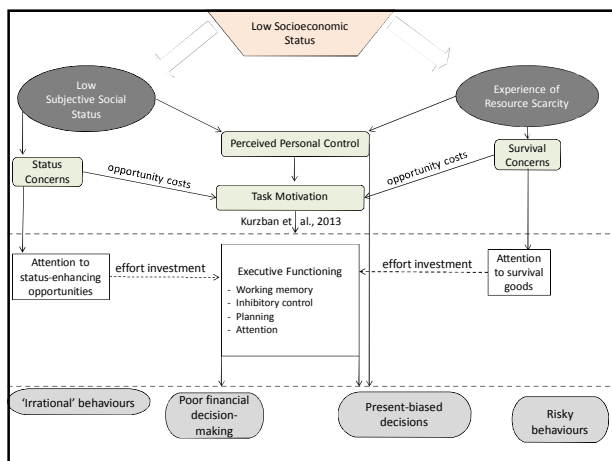
Sheehy-Skeffington & Sidanius, 2016

I can trust myself to get health check-ups more regularly than most people.

I do not have strong enough willpower to be careful about the amount I eat.



Indirect effect $b = 0.37$, bias-corrected 95% CI: 0.22, 0.54. * $p < .05$, *** $p < .0001$



Where to for Educational Psychologists in the era of austerity?

Material & relative deprivation...

- constrain cognition:
 - Impaired executive functioning in response to resource scarcity & low subjective SES
 - Bring cognitive resources can be 'brought back online' with increased task relevance
 - Take advantage of the concrete & contextual
- diminish perceived personal control:
 - Lower personal control in response to resource scarcity & low subjective SES
 - Leads to neglect of future outcomes affects a range of decision-making domains
 - Tailor tasks toward current goals
 - Increase environmental control & stability, enabling future focus

Impossible without the support of:

Jim Sidanius, Michael Price, Isabel Scott, Nick Pound ~ collaboration

Jim Sidanius, Mahzarin Banaji, Jennifer Hochschild, Steven Pinker ~ advising

Shabeer Syed, Rachel Ashwick, Danielle Appleford, Richard Robinson, Zara Khan, Jonathan Gibson, Miguel Perez-Luna, Erika Puente, Brittany Nielsen, Thomas Jelinek, Samuel Leiter, Karoliina Yang, Catherine Choi, Ian Lundberg, Sophie Scolnik-Brower, Esther Lee, Meymune Davutoğlu, Shanyi Gu, Beverly Boos, Zuzanna Wojcieszak, Kristen Arn, Sean O'Brien, Jennifer Yu, Randy Anderson ~ research support

Members of the Sidanius Lab, Banaji Lab, Inequality & Social Policy Seminar, Tobin Graduate Student Forum, Brunel Centre for Culture & Evolution ~ feedback

Harvard Interfaculty Initiative in Mind, Brain, & Behavior; NSF/ HKS Multidisciplinary Program in Inequality & Social Policy; The Tobin Project; British Academy for the Humanities and Social Sciences ~ funding

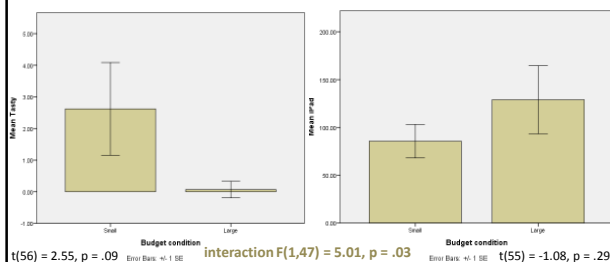


Thank you!



Pilot Study

- Budgeting game simulation of resource scarcity
- Temporal discounting: depends on the good



GENDER

Paper 1

Effects stronger for men in studies 1, (2 not applicable), 3, and 6; women attend to commitment more in study 5

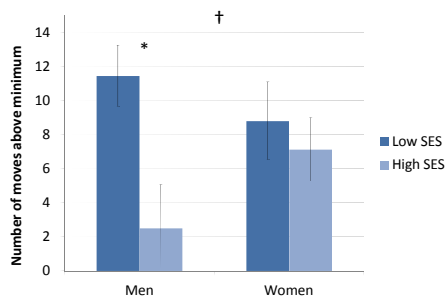
Paper 2

- 1 – no gender effect/interaction
- 2 – marginal status*gender interaction (stronger for men), controlling for objective SES removes it on moves but strengthens it on time taken
- 3 – very marginal interaction, simple effect stronger for men
- 4 – no interaction, but simple effect stronger for men

Paper 3

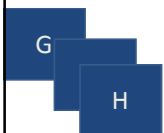
- 1 – no effect of gender controlling for other demographics (only income predicts)
- 2a- no gender effect/interaction
- 2b- men report more control overall, no interaction
- 3a – no gender effect/interaction
- 3b – no gender effect/interaction
- 4 – no gender effect/interaction
- 5 – males more pow/conf, becomes insig when status controlled, with status effect greater for them but interaction at $p = .6$

Paper 2, Study 2: Gender effects



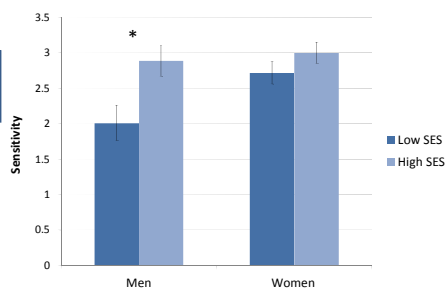
Interaction: $F(1,45) = 2.87, p = .09$; Main effect of status: $F(45) = 6.11, p = .02, d = 0.7$

Paper 2, Study 3: Gender effects



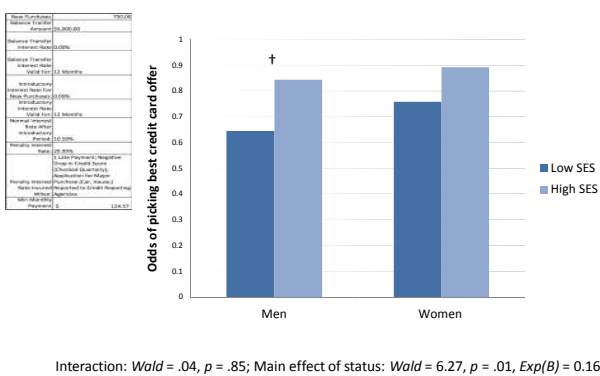
Main effect of status on error rate:
 $F(1,75) = 7.10, p = .009, d = 0.45$

No effect of status on effort, confusion, disbelief, surprise



Interaction: $F(1,51) = 2.24, p = .14$; Main effect of status: $F(1,51) = 8.37, p = .006, d = 0.62$

Paper 2, Study 4: Gender effects



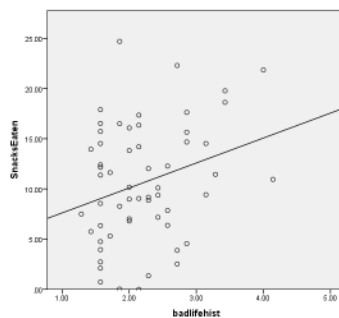
Study 2: Scarcity, Construal, & Present-bias

- SES background predicts unhealthy snack eating

Life history measure of harsh childhood:

"My family had significant financial struggles while I was growing up."
 "My father wasn't involved in my life growing up."
 "I've been through a lot of difficult times in my childhood."

$r = .28, p = .03$



Beyond the Lab



World Development Report 2015

control

We are interested in how you make decisions to meet your everyday needs. Into the microphone, please talk about how you [your family] will put food on the table for the next year. What will you [your family] do to get the food that you and your family need [that you all need] for the rest of the school year?

scarcity

We are interested in how you make decisions to meet your everyday needs. Into the microphone, please talk about how you [your family] will pay for your child's [the children's] school fees for the next year. What will you [your family] do to get the money you and your family need [that you all need] to pay tuition for the rest of the school year?