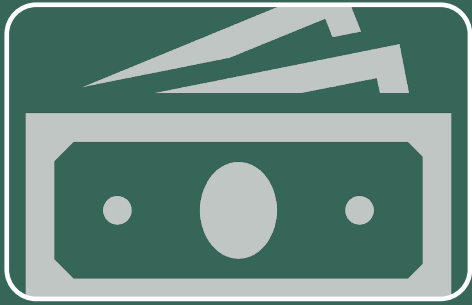


USING AFFECT CONTROL THEORY TO MEASURE OCCUPATIONAL STATUS

TRANSIENT IMPRESSION & DEFLECTIONS



I. CLASS AND STATUS ARE DISTINCT



Class is defined materially by:

- one's position in the economic sphere and
- how that determines life chances



Status is defined culturally by:

- to whom we give honor, deference, esteem and
- is associated with certain life styles

2. OPERATIONALIZATION OF OCCUPATIONAL STATUS HAS BEEN PLAGUED BY THE CONFLATION OF CLASS AND STATUS

- Class-based measures being used as stand-ins for status questions
- Status-based measures largely being based on public opinion / ranking surveys
 - Unclear what respondents are thinking of / is it 'status' or 'job desirability'
 - Difficult to know for sure either way

WHERE DOES THIS LEAVE US?

1. Class and status are distinct theoretical concepts
2. Operationalization of occupational status has been plagued by the conflation of class and status

We need to find a way to oper

HOW DO WE OPERATIONALIZE **STATUS** AND STATUS ONLY?

- We need some measurement of culture....

HOW DO WE OPERATIONALIZE **STATUS** AND STATUS ONLY?

- ACT!

MEASURING MEANING

Evaluation

Potency

Activity

EPA MEASURES CULTURE BROADLY

- These dimensions can tell us the broad cultural meaning of the identities, for example that
 - Nurses (**2.67** 1.85 1.91) are more good than Lawyers (**0.7** 2.48 1.24)
 - Foreman (1.14 **2.08** 1.94) are more powerful than Librarians (2.39 **0.09** -1.62)
- But they can only allow us to make comparisons along those three dimensions, and we want to measure a very specific definition of occupational status: degree to which occupational identities are **honored and deferred to** (Weber!)

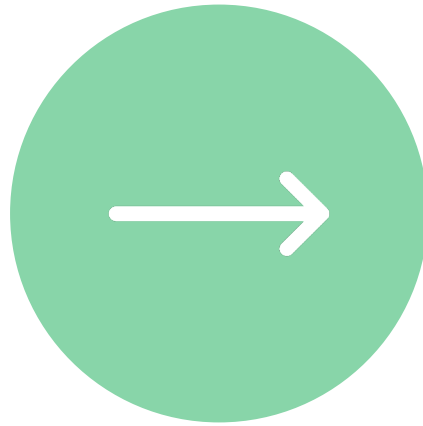
IMPRESSION FORMATION

- ACT functions at the level of the situation:
 - we have measurements of the fundamental meanings of these social identities
 - but to understand social behavior we need to put them in 'action' with each other
- This process is called **impression formation** in ACT

HOW DO WE MODEL THESE SITUATIONS IN ACT?



ACTOR



BEHAVIOR



OBJECT

WHAT DO 'SITUATIONS' LOOK LIKE IN ACT?



ACTOR



BEHAVIOR



OBJECT

SETTING

WHAT DO 'SITUATIONS' LOOK LIKE IN ACT?



EXAMPLE

Lawyer

Defers to

Telemarketer

EXAMPLE

Every element of the event has its
own Evaluation, Potency, and Activity

Lawyer

Defers to

Telemarketer

EXAMPLE

Every element of the event has its own Evaluation, Potency, and Activity

Lawyer

Defers to

Telemarketer

	Fund.
E	0.83
P	2.63
A	1.75

EXAMPLE

Every element of the event has its own Evaluation, Potency, and Activity

Lawyer

Defers to

Telemarketer

	Fund.
E	-0.16
P	0.43
A	-0.44

EXAMPLE

Every element of the event has its own Evaluation, Potency, and Activity

Lawyer

Defers to

Telemarketer

	Fund.
E	-1.76
P	-1.55
A	1.76

AFTER AN EVENT IS OVER...OUR AFFECTIVE IMPRESSIONS OF EACH ELEMENT CHANGE

Every element of the event has its own Evaluation, Potency, and Activity

And each shifts in response to the event

Lawyer

	Fund.	Transient
E	0.83	-0.08
P	2.63	1.55
A	1.75	1.23

Defers to

	Fund.	Transient
E	-0.16	-0.17
P	0.43	0.74
A	-0.44	0.15

Telemarketer

	Fund.	Transient
E	-1.76	-1.12
P	-1.55	-1.16
A	1.76	1.21

LAWYER

Lawyer

Defers to

Telemarketer

	Fundamental Impression	Transient Impression
E	0.83	-0.08
P	2.63	1.55
A	1.75	1.23

After the event “Lawyer defers to telemarketer”,
lawyer is seen as:

- Less Good (Lower Evaluation)
- Less Powerful (Lower Potency)
- Less Active (Lower Activity)

DEFER TO

Lawyer

Defers to

Telemarketer

	Fund.	Transient
E	-0.16	-0.17
P	0.43	0.74
A	-0.44	0.15

After the event “Lawyer defers to telemarketer”,
the behavior ‘defer to’ is seen as:

- About the same in Evaluation
- More Powerful
- More Active

TELEMARKETER

Lawyer

Defers to

Telemarketer

	Fund.	Transient
E	-1.76	-1.12
P	-1.55	-1.16
A	1.76	1.21

After the event “Lawyer defers to telemarketer”,
telemarketer is seen as:

- More Good (Higher Evaluation)
- More Powerful (Higher Potency)
- Less Active (Lower Activity)

HOW MUCH DID EACH ELEMENT MOVE IN EPA SPACE?

Squared Euclidean Distance:

Sum of the squared distances between each element's fundamental sentiment and transient sentiment.

	Fundamental	Transient
E	0.83	-0.08
P	2.63	1.55
A	1.75	1.23

	Fundamental	Transient
E	-0.16	-0.17
P	0.43	0.74
A	-0.44	0.15

	Fundamental	Transient
E	-1.76	-1.12
P	-1.55	-1.16
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HOW MUCH DID EACH ELEMENT MOVE IN EPA SPACE?

Euclidean Distance:

Sum of the squared
**distances between
each element's
fundamental
sentiment and
transient sentiment.**

	Fundamental	Transient	Distance
E	0.83	-0.08	-0.91
P	2.63	1.55	-1.08
A	1.75	1.23	-0.52

	Fundamental	Transient	Distance
E	-0.16	-0.17	-0.01
P	0.43	0.74	0.31
A	-0.44	0.15	0.59

	Fundamental	Transient	Distance
E	-1.76	-1.12	0.64
P	-1.55	-1.16	0.39
A	1.76	1.21	-0.55

HOW MUCH DID EACH ELEMENT MOVE IN EPA SPACE?

Euclidean Distance:

Sum of the **squared** distances between each element's fundamental sentiment and transient sentiment

	Fundamental	Transient	Distance	Distance ^2
E	0.83	-0.08	-0.91	0.83
P	2.63	1.55	-1.08	1.67
A	1.75	1.23	-0.52	0.27

	Fundamental	Transient	Distance	Distance ^2
E	-0.16	-0.17	-0.01	0.0001
P	0.43	0.74	0.31	0.096
A	-0.44	0.15	0.59	0.35

	Fundamental	Transient	Distance	Distance ^2
E	-1.76	-1.12	0.64	0.41
P	-1.55	-1.16	0.39	0.152
A	1.76	1.21	-0.55	0.30

HOW MUCH DID EACH ELEMENT MOVE IN EPA SPACE?

Euclidean Distance:

Sum of the squared distances between each element's fundamental sentiment and transient sentiment

	Fundamental	Transient	Distance ^2
E	0.83	-0.08	0.83
P	2.63	1.55	1.16
A	1.75	1.23	0.27

= 2.27

	Fundamental	Transient	Distance ^2
E	-0.16	-0.17	0.0001
P	0.43	0.74	0.096
A	-0.44	0.15	0.35

= 0.45

	Fundamental	Transient	Distance ^2
E	-1.76	-1.12	0.41
P	-1.55	-1.16	0.152
A	1.76	1.21	0.30

= 0.862

HOW MUCH DID EACH ELEMENT MOVE IN EPA SPACE?

Euclidean Distance:

Sum of the squared distances between each element's fundamental sentiment and transient sentiment

	Fundamental	Transient	Distance ^2
E	0.83	-0.08	0.83
P	2.63	1.55	1.16
A	1.75	1.23	0.27

= 2.27

	Fundamental	Transient	Distance ^2
E	-0.16	-0.17	0.0001
P	0.43	0.74	0.096
A	-0.44	0.15	0.35

= 0.45

	Fundamental	Transient	Distance ^2
E	-1.76	-1.12	0.41
P	-1.55	-1.16	0.152
A	1.76	1.21	0.30

= 0.862

+

= 3.6

+

+

IN EPA SPACE, THE SQUARED EUCLIDEAN DISTANCE IS CALLED DEFLECTION

- Deflection is considered an indication of how **likely** or **unlikely** an event is – due to how much the impressions of each element of the event move as a consequence of that event!
- Some examples:

IN EPA SPACE, THE EUCLIDEAN DISTANCE IS CALLED DEFLECTION

- Deflection is considered an indication of how **likely** or **unlikely** an event is – due to how much the impressions of each element of the event move as a consequence of that event!
- Some examples:
- High Deflection event –
 - **Doctor Hurts Child** has a deflection of **35**
 - **Very unexpected**

IN EPA SPACE, THE EUCLIDEAN DISTANCE IS CALLED DEFLECTION

Term	Dimension	Fundamental	Transient	Dist	Squared Dist.
doctor	E	2.69	-2.81	-5.50	30.25
doctor	P	2.94	2.12	-0.82	0.68
doctor	A	0.37	0.95	0.58	0.33
hurt	E	-3.17	-2.94	0.23	0.05
hurt	P	1.06	1.46	0.40	0.16
hurt	A	0.92	0.55	-0.37	0.14
child	E	1.89	0.19	-1.70	2.87
child	P	-1.14	-1.84	-0.70	0.49
child	A	1.87	1.30	-0.57	0.32

CAUTION

- Deflection != morality
- Indicator of likelihood – **normality**, not necessarily morality
- While doctor hurts patient is both high deflection and immoral, other immoral events may be low deflection
 - **Mugger Steals From Loner** has a deflection of **3.3**



QUESTIONS?



CULTURAL EXPECTEDNESS AS MEASUREMENT

- Deflection can be used in studies to assess how culturally expected or unexpected a theoretically interesting event is
 - Validated with experimental studies
- This can tell us about norms and the underlying cultural beliefs attached to various social identities
- **For example, if we're interested in conceptualizing occupational status how cultural expectations of deference in between occupational identities!**

STATUS AS DEFERENCE – FREELAND AND HOEY (2018)

- Which occupational identities are expected to defer to other occupational identities?
- Construct Actor-Behavior-Object events where:
 - Occupational identity defers to occupational identity
 - For **every single possible combination** of occupational identities in dictionary

FIREFIGHTER, LAWYER, TELEMARKETER, ELEMENTARY SCHOOL TEACHER

- Firefighter defers to firefighter
- Firefighter defers to lawyer
- Firefighter defers to telemarketer
- Firefighter defers to elementary school teacher
- Lawyer defers to firefighter
- Lawyer defers to lawyer
- Lawyer defers to telemarketer
- Lawyer defers to elementary school teacher

- Telemarketer defers to firefighter
- Telemarketer defers to lawyer
- Telemarketer defers to telemarketer
- Telemarketer defers to elementary school teacher
- Elementary school teacher defers to firefighter
- Elementary school teacher defers to lawyer
- Elementary school teacher defers to telemarketer
- Elementary school teacher defers to elementary school teacher

Actor	Behavior	Object	Deflection
firefighter	defer_to	firefighter	10.8
firefighter	defer_to	lawyer	8.16
firefighter	defer_to	telemarketer	9.42
firefighter	defer_to	elementary_school_teacher	9.38
lawyer	defer_to	firefighter	7.16
lawyer	defer_to	lawyer	4.56
lawyer	defer_to	telemarketer	3.58
lawyer	defer_to	elementary_school_teacher	5.23
telemarketer	defer_to	firefighter	7.98
telemarketer	defer_to	lawyer	5.13
telemarketer	defer_to	telemarketer	3.46
telemarketer	defer_to	elementary_school_teacher	5.9
elementary_school_teacher	defer_to	firefighter	8.2
elementary_school_teacher	defer_to	lawyer	5.52
elementary_school_teacher	defer_to	telemarketer	6.02
elementary_school_teacher	defer_to	elementary_school_teacher	6.6



Objects

Actors

	firefighter	lawyer	telemarketer	Elementary School teacher
firefighter	10.8	8.16	9.42	9.38
lawyer	7.16	4.56	3.58	5.23
telemarketer	7.98	5.13	3.46	5.9
Elementary School teacher	8.2	5.52	6.02	6.6



Objects

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	firefighter	lawyer	telemarketer	Elementary School teacher
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lawyer	defer_to	lawyer	4.56
lawyer	defer_to	telemarketer	3.58
lawyer	defer_to	elementary_school_teacher	5.23
telemarketer	defer_to	firefighter	7.98
telemarketer	defer_to	lawyer	5.13
telemarketer	defer_to	telemarketer	3.46
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elementary_school_teacher	defer_to	elementary_school_teacher	6.6



Objects

Actors

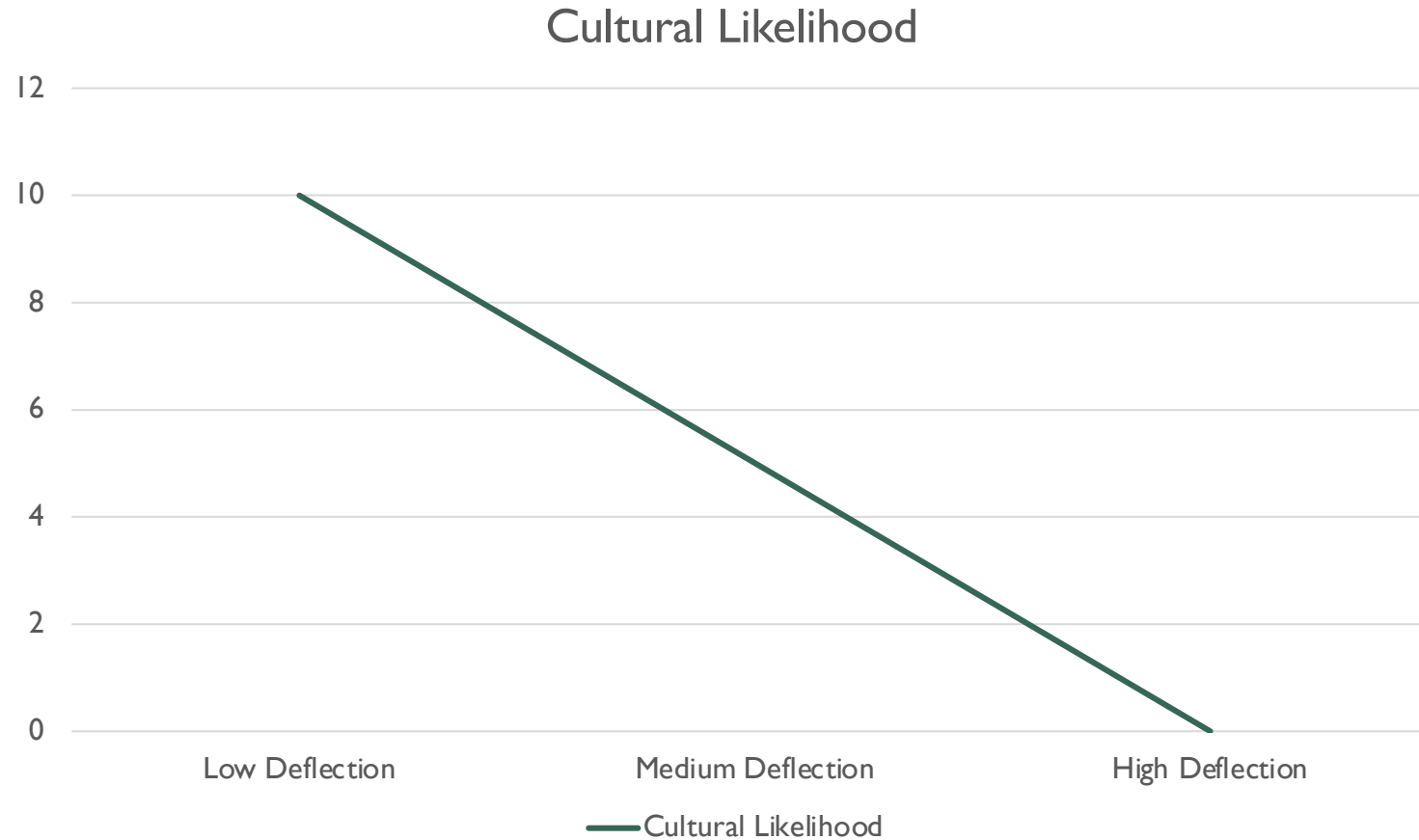
	firefighter	lawyer	telemarketer	Elementary School teacher	Average
firefighter	10.8	8.16	9.42	9.38	9.44
lawyer	7.16	4.56	3.58	5.23	5.133
telemarketer	7.98	5.13	3.46	5.9	5.62
Elementary School teacher	8.2	5.52	6.02	6.6	6.58

Objects

Actors

	firefighter	lawyer	telemarketer	Elementary School teacher	Average
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telemarketer	7.98	5.13	3.46	5.9	5.62
Elementary School teacher	8.2	5.52	6.02	6.6	6.58

Across our ‘small universe’ of occupational identities, the occupation that is least culturally expected to defer to other occupational identities is **firefighter** because it has the highest deflection



- We expect low status occupational identities to defer to everyone and high status occupational identities to be unlikely to defer to others
 - So higher deflection score is higher status

Accountant	5.36	Bartender	5.90	Chaplain	6.59
Actor	5.27	Beautician	5.94	Chauffeur	5.23
Advertising copy writer	4.39	Bellhop	5.80	Cheerleader	7.52
Advertising executive	5.57	Bill collector	4.89	Chef	6.87
Airline pilot	6.98	Biologist	5.83	Chemical engineer	6.25
Ambassador	6.11	Blacksmith	5.53	Chemist	6.00
Anesthetist	6.45	Board director	6.24	Chief operations officer	5.71
Architect	5.78	Bodyguard	7.37	Chiropractor	5.75
Artist	5.94	Bookie	4.94	Choreographer	5.94
Assembly line worker	5.41	Bookkeeper	5.24	Church deacon	6.12
Assistant	5.45	Bouncer	5.42	City councilor	4.91
Astronaut	8.22	Bricklayer	5.09	Civil engineer	6.22
Athlete	7.47	Broadcast news analyst	4.90	Civil servant	6.18
Attorney	6.22	Building contractor	4.92	Cleaning woman	5.56
Attorney general	5.88	Bulldozer operator	5.02	Clergy	5.24
Auctioneer	6.23	Bus driver	5.16	Clerical worker	4.68
Auditor	4.36	Busboy	5.44	Clerk	4.51
Auditor general	4.52	Butcher	4.86	Coach	7.73
Author	5.62	Cabinet maker	4.48	Coal miner	5.17
Auto mechanic	5.56	Cabinet member	5.74	Comedian	7.65
Automobile assembler	5.34	Carpenter	5.43	Commentator	5.34
Baby sitter	6.31	Cashier	4.62	Commissioner	5.00
Bailiff	5.34	Casual laborer	4.53	Computer programmer	5.78
Bailsmen	4.21	Cement worker	5.05	Computer security specialist	5.50
Baker	6.09	CEO	7.57	Computer support specialist	5.85
Bank manager	5.49	Chairman of the board	6.08	Construction contractor	5.32
Bank teller	5.16	Chairwoman	6.08		
Barber	4.92	Chambermaid	5.46		

Table 4. Highest Rated Occupations by GSS Prestige and Deference Scores

GSS Prestige Score			Deference Score	
Occupation	ISCO-88	Prestige	Occupation	ISCO-88 Deference
Doctor	2221	84	Firefighter	5161 10.09
Professor	2310	74	Doctor	2221 9.38
Computer Programmer	2131	74	Elementary School Teacher	2230 8.79
Scientist	2111	73	Nurse	2223 8.77
Dentist	2222	72	Teacher	2331 7.76
Chemical Engineer	2146	71	Veterinarian	3475 7.71
Judge	2422	71	Athlete	2321 7.47
Geologist	2114	70	Cook	5122 7.30
Lawyer	2421	69	Nursing Assistant	2432 7.28
Civil Engineer	2142	69	Social Worker	3221 7.12

Note: Scientist consists of biologist, chemist, and physicist, with equal prestige scores of 73.



QUESTIONS?



VALIDITY?

- Construct:
 - How well does it match other measurements of the same/similar concept?
 - Relationship between deference scores and Harris Prestige Poll results
- Criterion:
 - Does the measure predict theoretical correlates well?
 - How well does EPA score predict measures of workplace outcomes?

HARRIS PRESTIGE POLLS

Table 2. Harris Prestige Score

Occupation	Harris Score
Firefighter	59.8
Scientist	55.4
Doctor	54.6
Nurse	52.2
Teacher	51.2
Military Officer	49.8
Police Officer	43.8
Clergy	39.8
Farmer	38.5
Engineer	35.4
Member of Congress	27.2
Architect	26.8
Lawyer	22.2
Athlete	20.6
Business Executive	16.0
Entertainer	16.0
Journalist	15.6
Union Leader	15.0
Banker	14.6
Actor	13.6
Accountant	13.4
Stockbroker	10.8
Real Estate Agent	6.2

- “For each [occupation], would you tell me if you feel it is an occupation of very great prestige, considerable prestige, some prestige, or hardly any prestige at all?”
- Mean % of respondents who selected ‘very great prestige’

CONSTRUCT VALIDITY

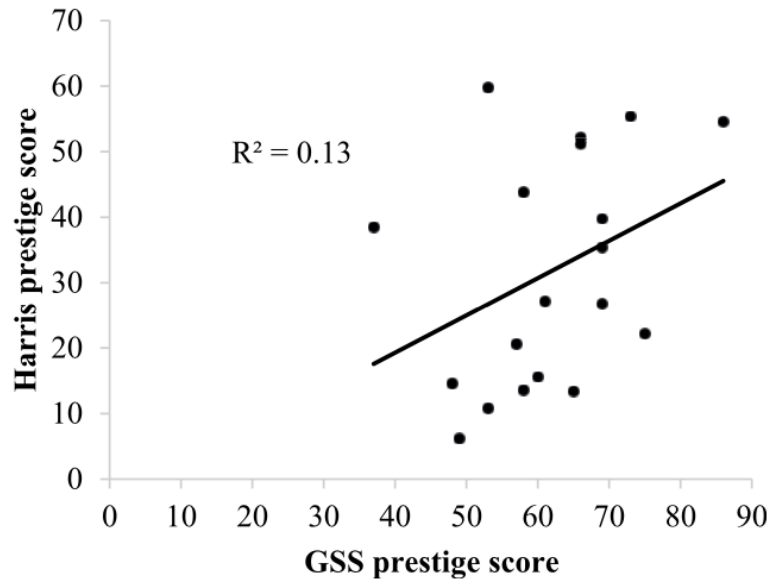


Figure 1. GSS Prestige and Harris Prestige Scores

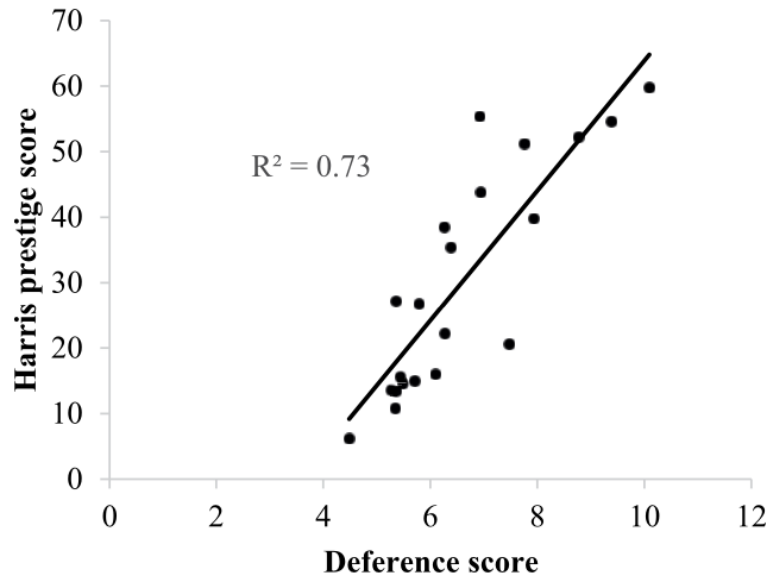


Figure 2. Deference and Harris Prestige Scores

CRITERION VALIDITY – GENERAL SOCIAL SURVEY

- Attachment to work
 - Would you continue working if you became rich?
- Job satisfaction
 - On the whole, how satisfied with your job are you?
- General happiness
 - Taken all together, how would you say things are these days?
- Workplace respect
 - At the place where I work, I am treated with respect
- Meaningful work
 - Choosing 'work that is important and gives a feeling of accomplishment' as the highest preference for a job

CRITERION VALIDITY

- Matched respondents' occupational codes with occupational identities in ACT dictionary
- Predicted those dependent variables as a function of:
 - Deference Score
 - Controls (Education, Income, Age, Sex, Race)

CRITERION VALIDITY

Table 5. Logistic Regression Models Predicting Workplace Attachment, Job Satisfaction, General Happiness, Meaningful Work, and Respect at Work

		Attachment	Job Satisfaction	Happiness	Meaningful Work	Respect
		Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)
Full						
	Deference	1.069** (.025)	1.209*** (.018)	1.087*** (.018)	1.176*** (.045)	1.173*** (.036)
	Education	1.168*** (.027)	1.041* (.020)	1.103*** (.021)	1.833*** (.054)	1.084* (.040)
	Income	.865*** (.029)	1.154*** (.020)	1.147*** (.021)	.956 (.048)	1.058 (.039)
	Age	.980*** (.002)	1.019*** (.001)	1.006*** (.001)	1.017*** (.003)	1.016*** (.003)
	Female	.725*** (.049)	1.048 (.036)	1.062 (.038)	1.391*** (.086)	1.080 (.073)
	Black	.932 (.070)	.651*** (.053)	.678*** (.058)	.318*** (.144)	1.001 (.103)
	Other	1.300** (.090)	.782*** (.064)	.842* (.068)	.424*** (.171)	.958 (.120)
	-2LL	11,102.4	19,453.4	18,510.2	3,462.6	4,798.0

ODDS RATIOS ARE THE WORST

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OR > 1 = positive effect

OR < 1 = negative effect

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Age	.980*** (.002)	1.019*** (.001)	1.006*** (.001)	1.017*** (.003)	1.016*** (.003)
Female	.725*** (.049)	1.048 (.036)	1.062 (.038)	1.391*** (.086)	1.080 (.073)
Black	.932 (.070)	.651*** (.053)	.678*** (.058)	.318*** (.144)	1.001 (.103)
Other	1.300** (.090)	.782*** (.064)	.842* (.068)	.424*** (.171)	.958 (.120)
-2LL	11,102.4	19,453.4	18,510.2	3,462.6	4,798.0

The higher the deference score, the more likely a respondent is to report all 5 measures!



QUESTIONS?



DISCUSSION

- What are the strengths of this measurement strategy?
- Weaknesses?
- How do you think it would perform with less affective outcomes?