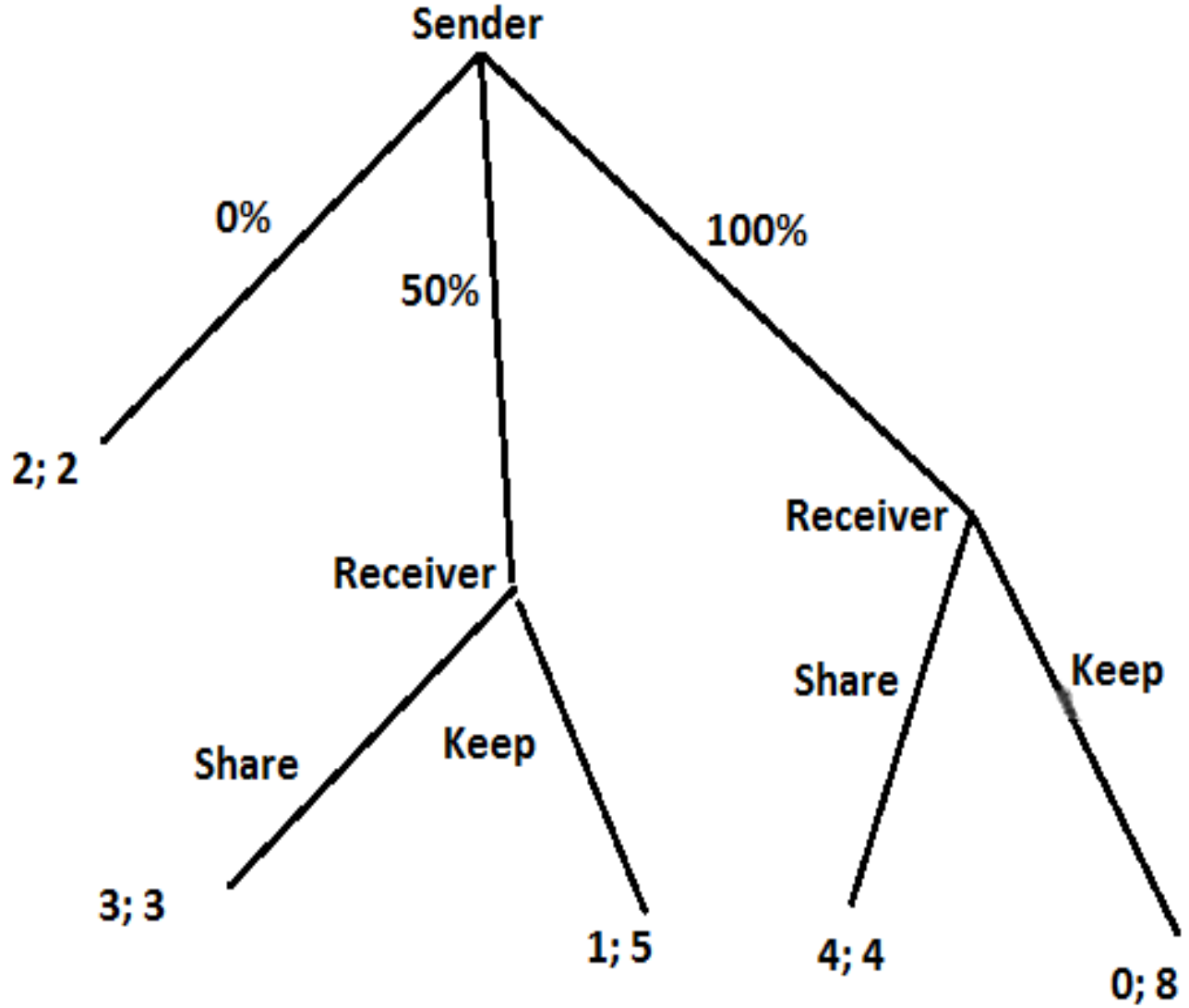
Economía Experimental y del Comportamiento: Validez externa y el campo

Francesco Bogliacino

Contenido

1. **La naturaleza del problema**
2. La validez
3. Field studies: una taxonomía
4. Aprender de los experimentos de campo: Roots of sociality
5. WEIRD
6. Evidencia across country
7. Algunos consejos prácticos

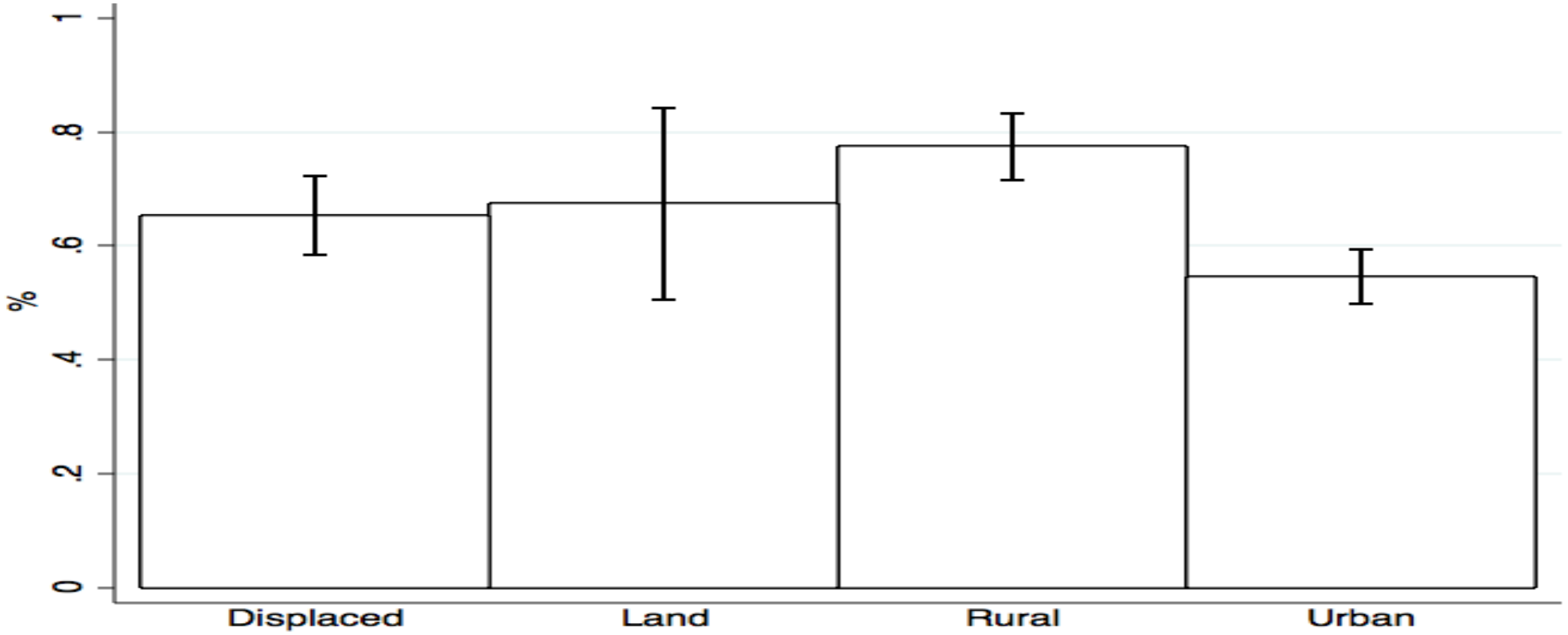
Trust Game


Sender
0%
50%
100%
2; 2
Receiver
Receiver
Share
Keep
Share
Keep
3; 3
1; 5
4; 4
0; 8

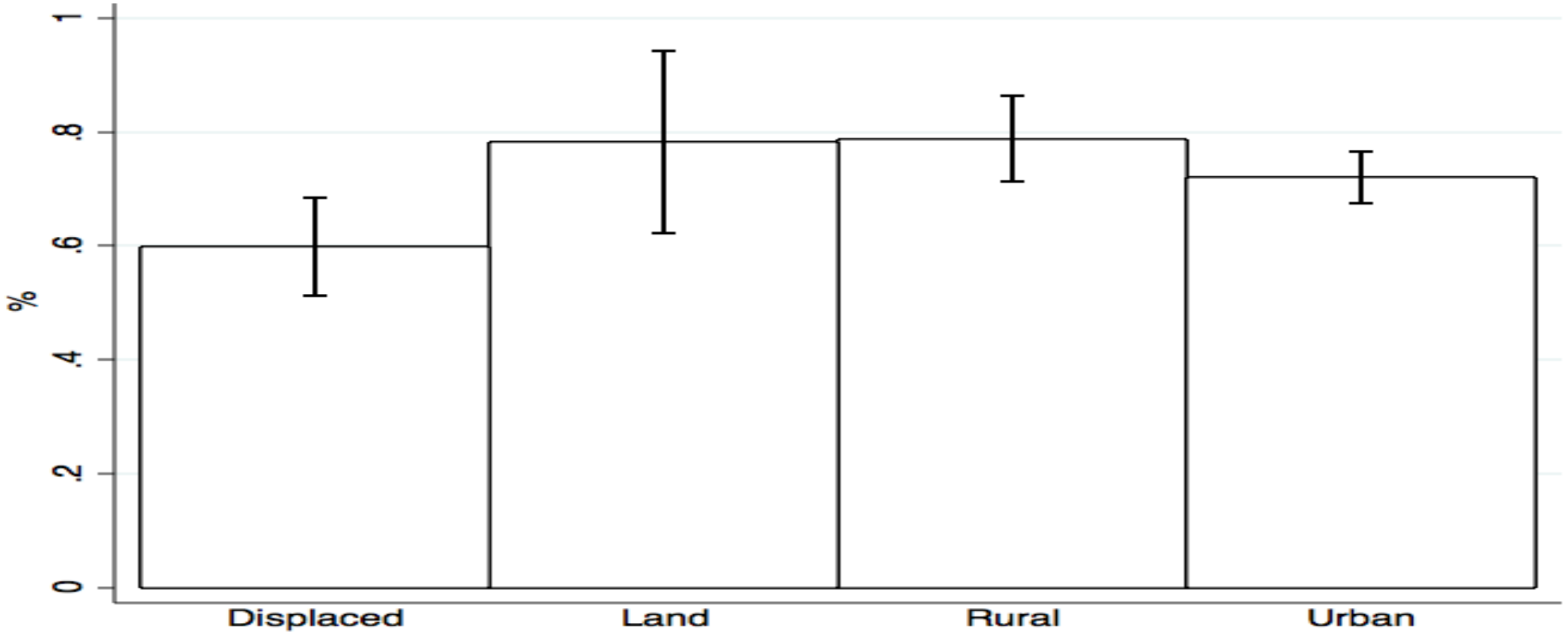

Impares
Pares


2014 Año Internacional de la Agricultura Familiar
Nobley Entusiasta...
¡Muchísimas Gracias
Pedro!

Trust



Trustworthiness



Generalizar

- Conceptualmente, es como el problema de identificación, hay cosas que se están modificando al tiempo (violación de ceteris paribus) y esto nos complica la inferencia;
- La pregunta de qué tanto aprendemos *en general* de estudios experimentales es legítima pero aplica para cualquier estudio empírico (estamos todos intentando hacer lo mismo)
  - … lo que el método experimental hace es guiarnos hacia la interpretación de los datos

Parallelism

- According to Smith (1982) the axioms of induced utility where:
  - Non satiation;
  - Saliency
  - Dominance
  - Privacy
  - Parallelism: “Propositions about the behavior of individuals and the performance of institutions that have been tested in laboratory microeconomies apply also to nonlaboratory microeconomies where similar ceteris paribus conditions hold.”

Smith (1982)

- “Insofar as we are only interested in testing hypotheses derived from theories, we are done, that is, Precepts 1-4 are sufficient to provide rigorous controlled test of our ability as economists to model elementary behavior”
- “Once replicable results have been documented in laboratory experiments, one's scientific curiosity naturally asks if these results also apply to other environments, particularly those of the field”

Falk and Heckman (2009)

- All causes model:

$$Y = f(X_1, X_2, \ldots, X_n)$$

  - In lab we will have $\bar{X} = \{X_2'', \ldots, X_n''\}$
  - In field we will have $\bar{\bar{X}} = \{X_2', \ldots, X_n'\}$
  - Which one generalizes best to $\breve{X} = \{X_2''', \ldots, X_n'''\}$?

  - Experiments are the best way to learn:
    - Incentives
    - Scrutiny
    - Self selection
    - Sample size

Contenido

1. La naturaleza del problema
2. **La validez**
3. Field studies: una taxonomía
4. Aprender de los experimentos de campo: Roots of sociality
5. WEIRD
6. Evidencia across country
7. Algunos consejos prácticos

Validez

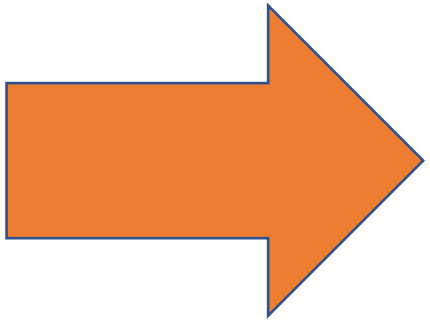
- Validez es propiedad de una proposición sobre la experiencia. En este contexto hablamos de validez de un estudio empírico y se refiere a las inferencias que hagamos a partir del mismo:
  - Interna: qué tan “confiados” estamos que se cumpla la proposición A que inferimos desde el estudio (los datos X). En práctica ya que nuestro enfoque es causal en 99% de los casos, es una propiedad de verdad de una inferencia causal;
  - Externa, dado que se afirma A en el estudio X, que tan “confiados” estamos que A aplique para Estudio X1.

El enfoque Campbell-Cronbach

- Como científico pensamos en causas, ¿qué causas determinan el comportamiento? Entonces, ¿qué elementos del estudio qué estamos discutiendo podrían NO generalizar a otro contexto?
- Noten que necesitamos:
  - Identificar lo que podría afectar
  - Conocer en detalles los *procedimientos* (metadatos, context institucionae)
- Campbell habla de *amenazas* (threats)

UTOS

- UNIT (i)
- TREATMENT (D(i))
- OBSERVATIONS (Y(i))
- SETTINGS (X(i))



UTOS*

U*

T*

O*

S*

Levitt and List

- “A critical assumption underlying the interpretation of data from many laboratory experiments is that the insights gained in the lab can be extrapolated to the world beyond, a principle we denote as generalizability” (2007a)
- “We can think of no question more fundamental to experimental economics than understanding whether, and under what circumstances, laboratory results generalize to naturally occurring environments” (2007b)
- La respuesta…. Ir a “campo” (field)

Contenido

1. La naturaleza del problema
2. La validez
3. **Field studies: una taxonomía**
4. Aprender de los experimentos de campo: Roots of sociality
5. WEIRD
6. Evidencia across country
7. Algunos consejos prácticos

Definiciones

- Field: “a job or research location that is away from regular work or study facility”

El contexto del campo

- the nature of the subject pool (los participantes)
- the nature of the information and experience that the subjects bring to the task (la información y la experiencia propia en la tarea)
- the nature of the commodity (la mercancía)
- the nature of the task or institutional rules applied (las instituciones)
- the nature of the environment that the subject operates in (el ambiente)

(Harrison & List 2004)

A taxonomy (Harrison and List, 2004)

- Lab Experiment;
- Artefactual Field Experiment;
- Framed Field Experiment;
- Natural Field Experiment;

- Social Experiment;
- Natural Experiment;
- Thought Experiment

Contenido

1. La naturaleza del problema
2. La validez
3. Field studies: una taxonomía
4. **Aprender de los experimentos de campo: Roots of sociality**
5. WEIRD
6. Evidencia across country
7. Algunos consejos prácticos

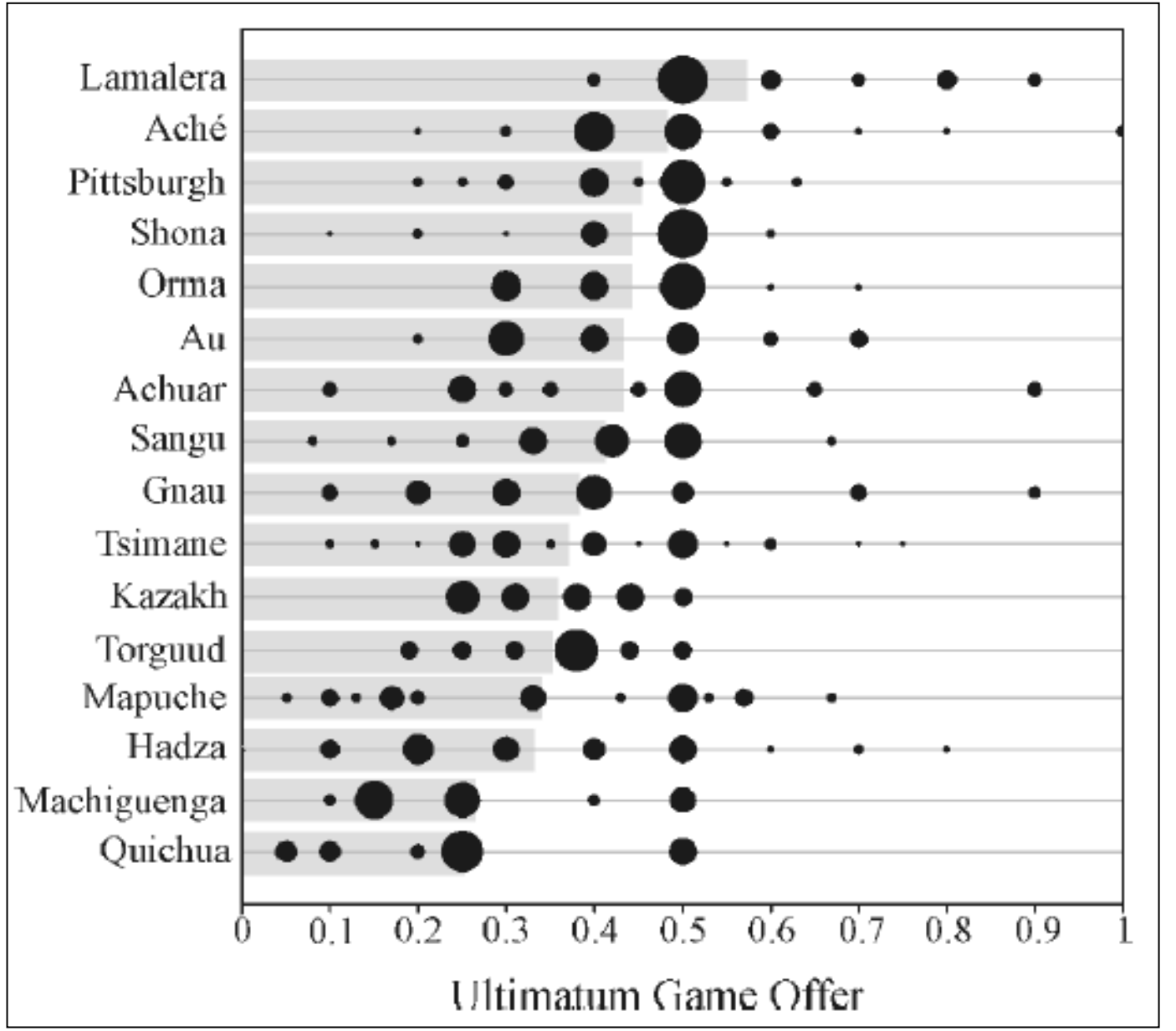

Territorio Matsigenka
ECUADOR
COLOMBIA
Napo
Iquitos
Marañón
Amazonas
PERÚ
Ucayali
Cajamarca
Marañon
BRASIL
Océano Pacífico
Pucallpa
Ucayali
Huaraz
Huánuco
Huancayo
Madre de Dios
LIMA
Ayacucho
Cuseo
Nuevo Mundo
Nueva Luz
Carpintero (Kirigeti)
Pto. Huallana
Camisea
Mayapo
Shivankoreni
Segakiato
Río Urubamba
Camaná
Chokoriari
Timpia
Tigompinia
Río Mantaro
Shimaa
Monte Carmelo
Shimentáato
Pucallpa (aprox. 480 km)
Río Manu
Tayakome
Cusco
BOLIVIA
CHILE

Small Scale societies (aka selfishness axiom)

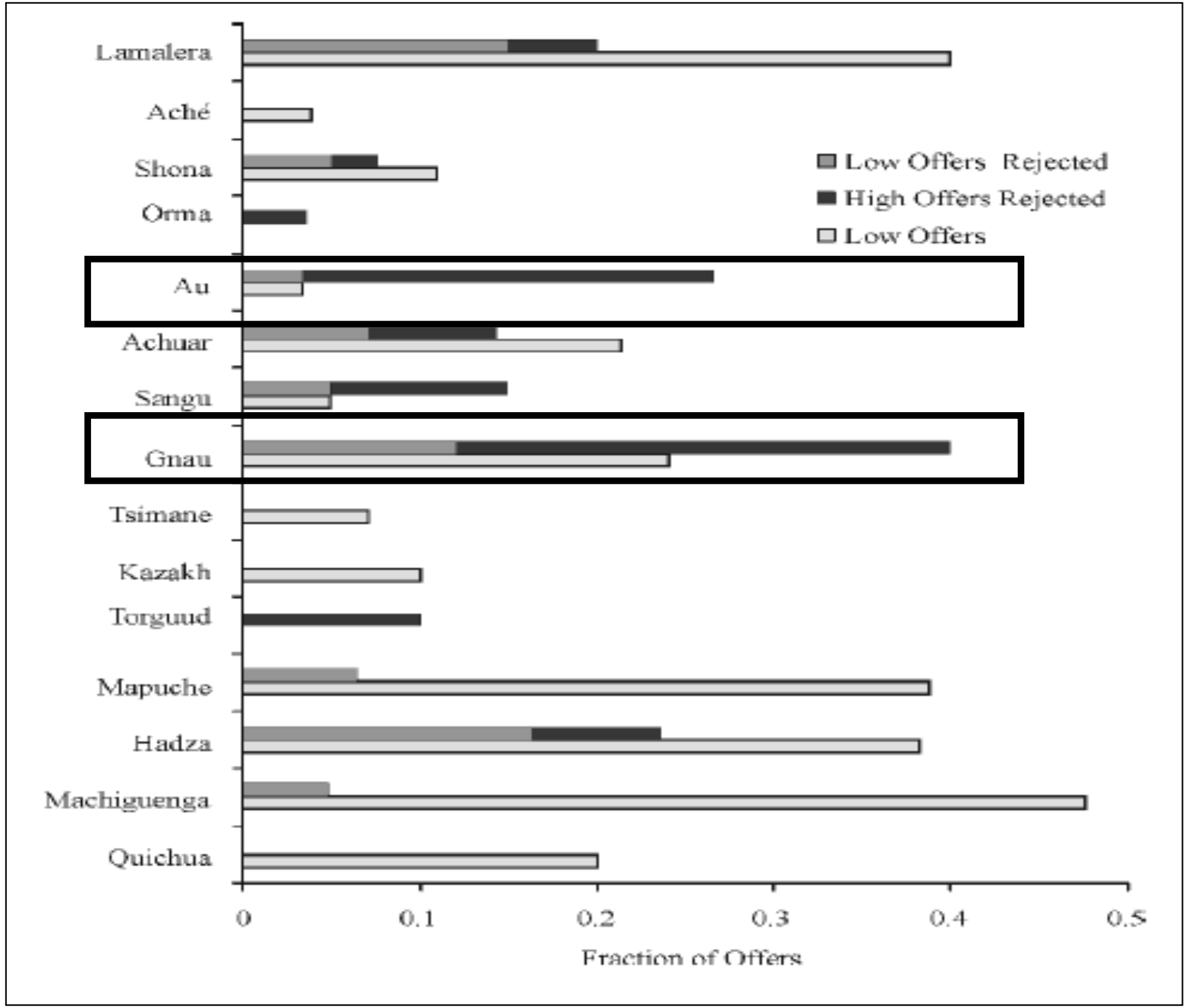
- UG “Machiguenga outlier” (Mean .26; Mode .15; Rej Rate 0.048)
- “Control” experiment (Mean .48; Mode .50; Rej rate 0):
  - 160 USD
  - UCLA Anthropology
  - Familiarity with Heinrich (leading exp)
  - Same instructions, examples, questions;
  - Same age


Torguud,
Khazax
Lamalera
Au, Gnau
Orma
Hadza
Sangu
Shona
Achuar, Quichua
Machiguenga
Mapuche
Tsimane
Aché

Group	Language Family	Environment	Economic Base	Residence	Complexity	Researcher	PC[1]	AMI[2]
Machiguenga	Arawakan	Tropical forest	Horticulture	Bilocal/ seminomadic	Family	Henrich, Smith	1	4.5
Quichua	Quichua	Tropical forest	Horticulture	Sedentary/ seminomadic	Family	Patton	1	2
Achuar	Jivaroan	Tropical forest	Horticulture	Sedentary/ seminomadic	Family plus extended ties	Patton	1	2.50
Hadza	Khoisan/Isolate	Savanna-woodlands	Foraging	Nomadic	Band	Marlowe	4	1.25
Aché	Tupi-Guarani	Semitropical woodlands	Horticulture/ foraging	Sedentary/ nomadic	Band	Hill, Gurven	6	5
Tsimane	Macro-Panoan Isolate	Tropical forest	Horticulture	Seminomadic	Family	Gurven	1	2.75
Au	Torricelli/ Wapei	Mountainous tropical forest	Foraging/ horticulture	Sedentary	Village	Tracer	3	4.75
Gnau	Torricelli/ Wapei	Mountainous tropical forest	Foraging/ horticulture	Sedentary	Village	Tracer	3	5
Mapuche	Isolate	Temperate plains	Small scale farming	Sedentary	Family plus extended ties	Henrich	2	4
Torguuds	Mongolian	High latitude desert; seasonally-flooded grassland	Pastoralism	Transhumance	Clan	Gil-White	2	9
Kazakhs	Turkic	High-latitude desert; seasonally-flooded grassland	Pastoralism	Transhumance	Clan	Gil-White	2	9.25
Sangu (farm/ herd)	Bantu	Savanna-woodlands; seasonally-flooded grassland	Agro-pastoralists	Sedentary or nomadic	Clan-chiefdom	McElreath	5	6.5 6.75
Orma	Cushitic	Savanna-woodlands	Pastoralism	Sedentary or nomadic	Multiclan chiefdom	Ensminger	2	9.25
Lamalera	Malayo-Polynesian	Island tropical coast	Foraging/trade	Sedentary	Village	Alvard	7	9
Shona	Niger-Congo	Savanna-woodlands	Farming	Sedentary	Village	Barr	1	10



Heinrich et al BBS 2005



Heinrich et al BBS 2005

Site	Money Allocation	Any Explicit/ Intentional Contextualization?	Instructions to Group First	Players Corralled or House-by-House	Medium	Deceptions Used	Show-Up Fee	Postgame Interviews
Orma	The pair	No	Group	Corralled (no talking)	Cash	None	Yes	Some
Machiguenga	The pair	No	Both	Both	Cash	None	No	Yes
Mapuche	The pair	No	Individuals only	House-by-house	Cash	None	No	Yes
Au/Gnau	The first person	No	Individuals only	Corralled (talking)	Cash	None	Yes	None
Aché	The first person	Yes – related to meat sharing	Group	Corralled (talking)	Cash	Few sham low offers	Yes	Some
Tsimane	The pair	No	Group	Corralled	Cash	None	Yes	Some
Lamalera	The pair	No	Group	Corralled (some talking)	Packs of cigarettes	Sham low offers	No	None
Torguud Kazakhs	The first person	No	Individuals only	House-by-house	Cash	Sham low offers	No	Yes
Hadza	The pair	No	Individuals only	One-by-one (No corralling)	Cash	None	No	Yes
Shona	Ambiguous	No	Individuals only	Corralled No talking)	Cash	None	No	Group debriefs
Achuar Quicha	The pair	Yes – people invited to a "Minga"	Group	Corralled (No talking)	Cash	None	Yes	Some
Sangu	The pair	No	Individuals only	Both	Cash	None	No	Yes

Cues, culture, and context

- “the harambee game” [Orma]
- Status seeking through gift giving [Au, Gnau]
- Whale Hunters, 58% offer [Lamalera]

Small Scale Societies

- Rejecting the selfishness axiom;
- A lot of between group variation;
- Market Integration and local importance of cooperation;
- Variation of individual level variables does not explain between group var
- Experimental play often reflects patterns of interaction in everyday life.

Heinrich et al. (2005)

Contenido

1. La naturaleza del problema
2. La validez
3. Field studies: una taxonomía
4. Aprender de los experimentos de campo: Roots of sociality
5. **WEIRD**
6. Evidencia across country
7. Algunos consejos prácticos

WEIRD people (Heinrich, Heine, Norenzayan, 2010)

- Western
- Educated
- Industrialized
- Rich
- Democratic

Visual perception

- Muller-Lyer illusion

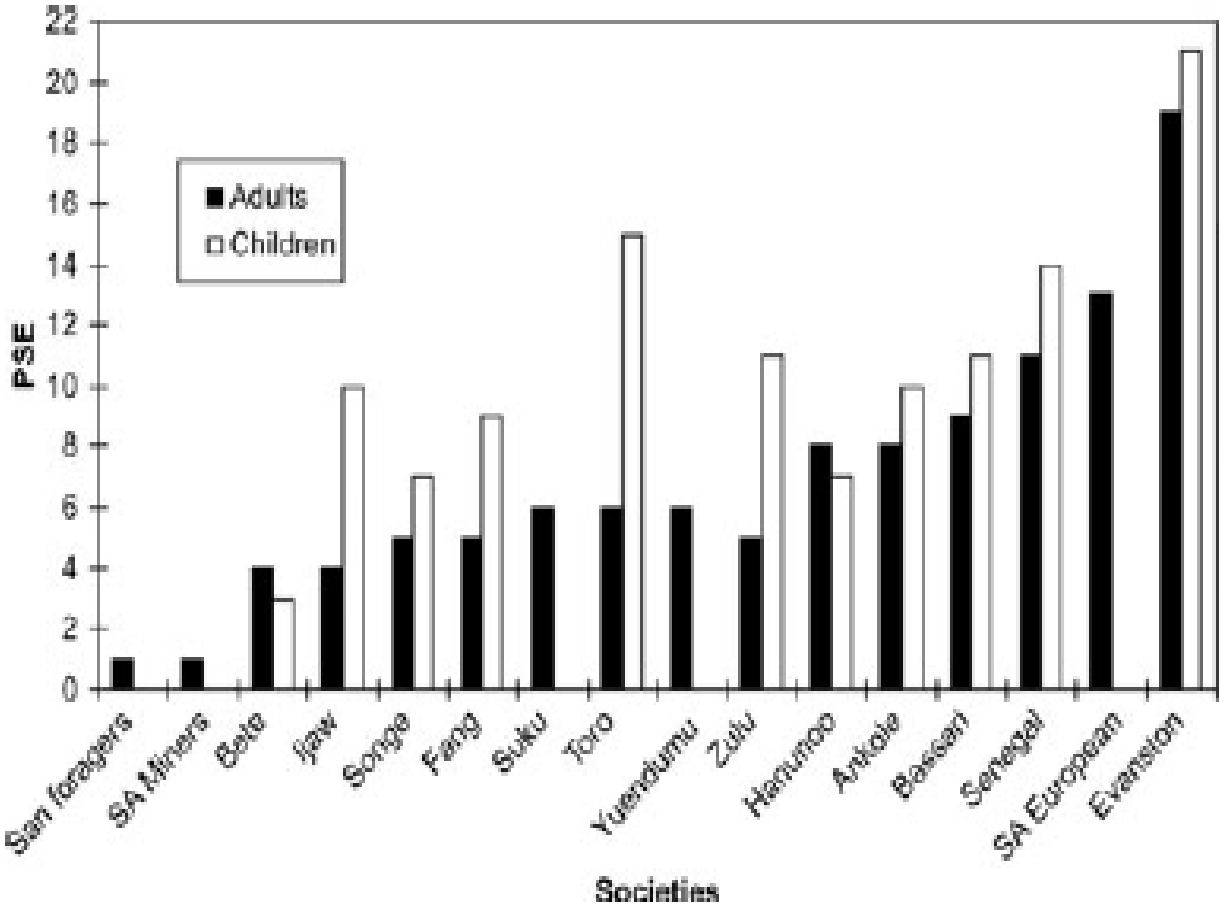
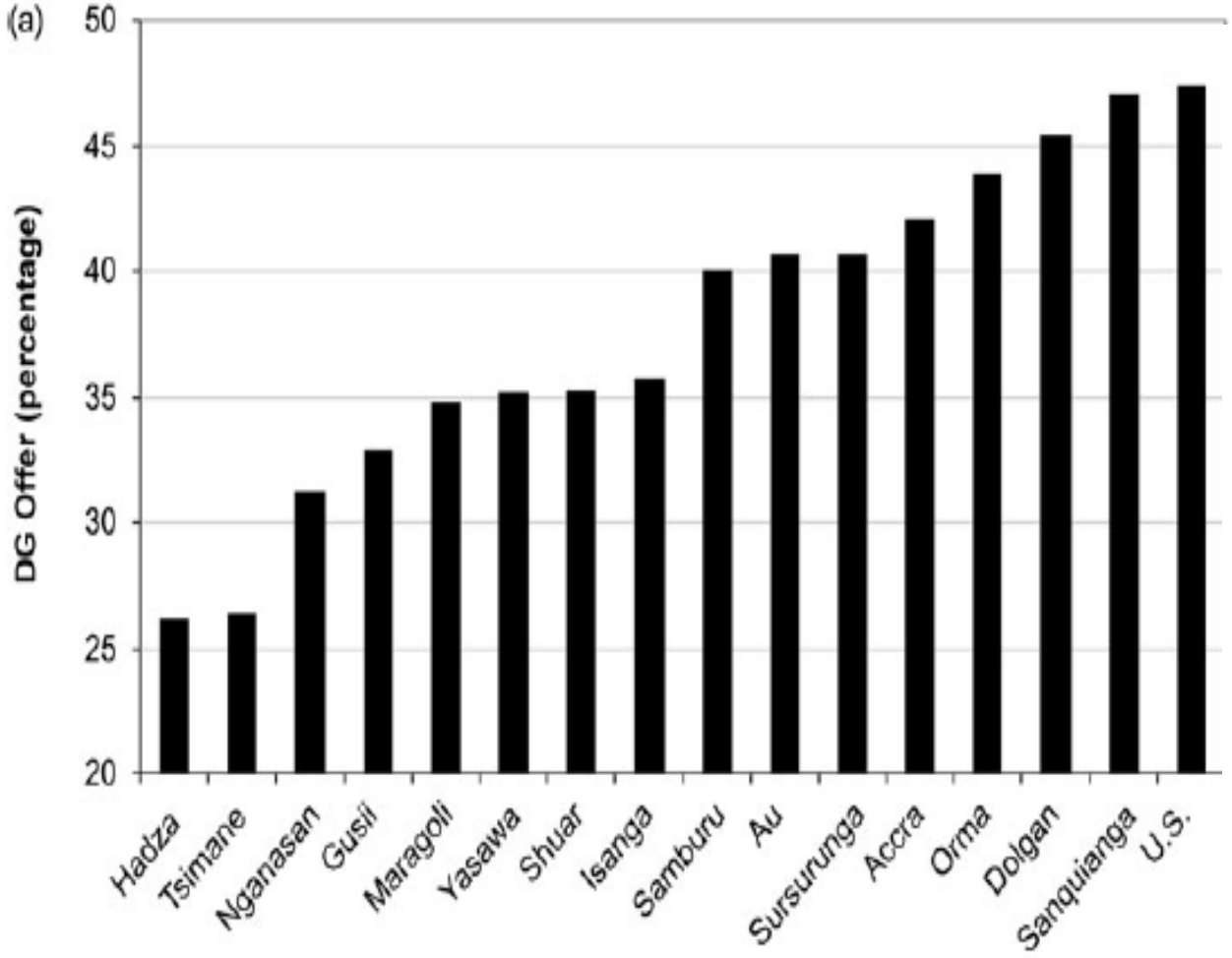
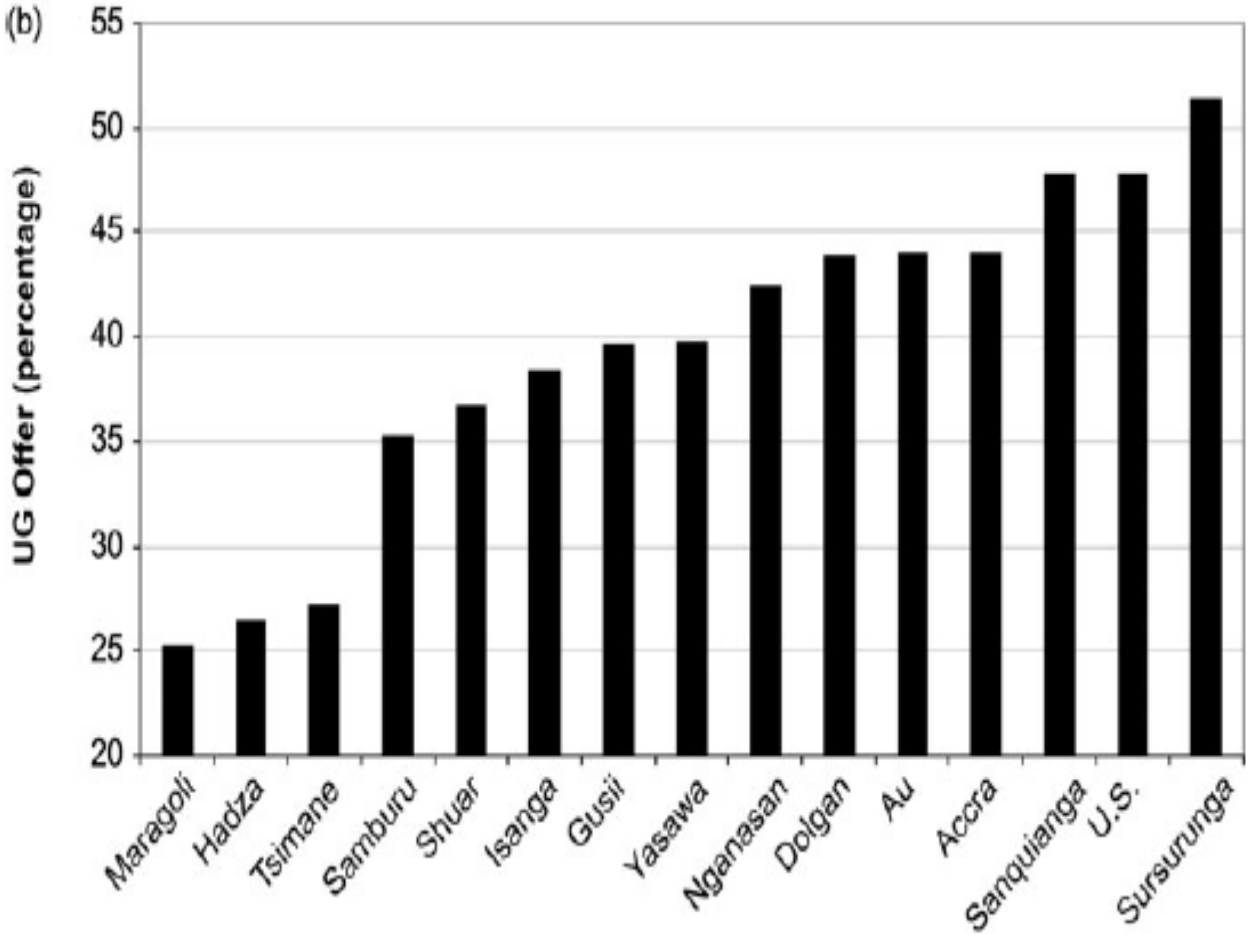


Figure 2. Müller-Lyer results for Segall et al.'s (1966) cross-cultural project. PSE (point of subjective equality) is the percentage that segment a must be longer than b before subjects perceived the segments as equal in length. Children were sampled in the 5-to-11 age range.

Fairness


(a)
DG Offer (percentage)
50
45
40
35
30
25
20
Hadza
Tsimane
Nganasan
Gusii
Maragoli
Yasawa
Shuar
Isanga
Samburu
Au
Sursurunga
Accra
Orma
Dolgan
Sanquianga
U.S.


(b)
UG Offer (percentage)
55
50
45
40
35
30
25
20
Maragoli
Hadza
Tsimane
Samburu
Shuar
Isanga
Gusii
Yasawa
Nganasan
Dolgan
Au
Accra
Sanquianga
U.S.
Sursurunga

WEIRD

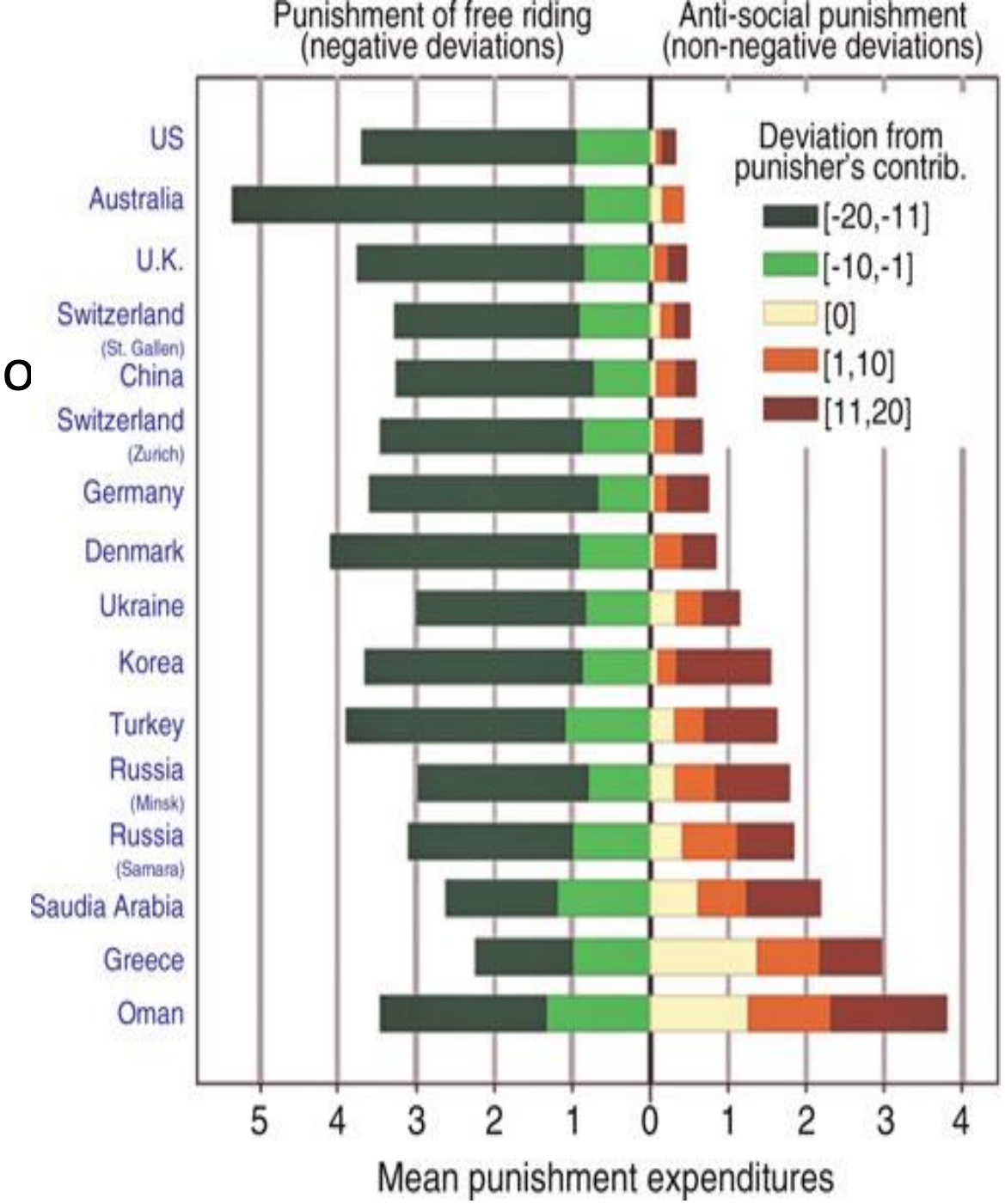
- Folkbiological reasoning: children in anthropocentric environment develop inferences from homo sapeins only and their patterns are not reproduced in society with higher contacts with nature.;
- “Speakers of English and other Indo-European languages favor the use of an egocentric (relative) system to represent the location of objects” (Heinrich et al. 2010): egocentric vs allocentric bias
- However, basic emotions are not culture specific
- And “perceiving living organisms as having an underlying and non-trivial nature that makes them what they are” (psychological essentialism) seems to vary across cultures

Contenido

1. La naturaleza del problema
2. La validez
3. Field studies: una taxonomía
4. Aprender de los experimentos de campo: Roots of sociality
5. WEIRD
6. **Evidencia across country**
7. Algunos consejos prácticos

Western vs non western

- Anti-social punishment and cooperatio



Hermann et al. (2008)

Cárdenas and Carpenter (2008)

Table 1. Cooperation in developing countries

Game	Study	Location	Students	Mean cooperation
PD	Cooper et al. (1996)	United States	Yes	22% cooperate
PD	Hemesath and Pomponio (1998)	United States	Yes	25% cooperate
		China	Yes	54% cooperate
PD	Tyson et al. (1988)	South Africa	Yes	45% cooperate w/black other
			Yes	37% cooperate w/white other
VCM	Andreoni (1995)	United States	Yes	33% of endowment
VCM	List (2004)	United States	No	32% of endowment – young
			No	43% of endowment – old
VCM	Barr (2001)	Zimbabwe	No	48% of endowment, 52%[a]
VCM	Barr and Kinsey (2002)	Zimbabwe	No	53% of endowment – women
		Zimbabwe	No	48% of endowment – men
VCM	Carpenter et al. (2004a)	Vietnam	No	72% of endowment, 76%[a]
		Thailand	No	61% of endowment, 73%[a]
VCM	Ensminger (2000)	Kenya	No	58% of endowment
VCM	Gaechter et al. (2004)	Russia	Yes	44% of endowment
		Russia	No	52% of endowment
VCM	Henrich and Smith (2004)	Peru	No	23% of endowment
		Chile-Mapuche	No	33% of endowment
		Chile-Huinca	No	58% of endowment
VCM	Karlan (2005)	Peru	No	81% of endowment[b]
CPR	Cardenas and Carpenter (2004)	United States	Yes	79% of Nash extraction
		Colombia	Yes	74% of Nash extraction
CPR	Cardenas et al. (2000)	Colombia	No	72% of Nash extraction
CPR	Cardenas, et al. (2002)	Colombia	No	68% of Nash extraction, 49%[c]
CPR	Cardenas (2003a)	Colombia	No	74% of Nash extraction, 62%[c]
CPR	Velez et al. (2006)	Colombia	No	80% of Nash extraction

Notes: a. without social sanctions, with social sanctions; b. this result is from a threshold public goods game; c. without communication, with communication.

Cárdenas and Carpenter (2008)

Table 2. Trust in developing countries

Study	Location	Students	Fraction sent	Fraction returned	Return ratio
Berg et al. (1995)	United States	Yes	0.52	0.30	0.90
Burks et al. (2003)	United States	Yes	0.65	0.40	1.31
Ashraf et al. (2006a)	United States	Yes	0.41	0.23	0.58
	Russia	Yes	0.49	0.29	0.80
	South Africa	Yes	0.43	0.27	0.73
Barr (2003a)	Zimbabwe	No	0.43	0.43	1.28
Buchan et al. (2006)	United States	Yes	0.65	0.45[a]	1.35
	China	Yes	0.73	0.50[a]	1.51
	Japan	Yes	0.68	0.50[a]	1.51
	South Korea	Yes	0.64	0.49[a]	1.47
Burns (2004b)	South Africa	Yes	0.33	0.23	0.70
Cardenas (2003b)	Colombia	Yes	0.50	0.41	1.22
Carter and Castillo (2002)	South Africa	No	0.53	0.38	1.14
Castillo and Carter (2003)	Honduras	No	0.49	0.42	1.26
Holm and Danielson (2005)	Tanzania	Yes	0.53	0.37	1.17
	Sweden	Yes	0.51	0.35	1.05
Danielson and Holm (2007)	Tanzania	No	0.56	0.46	1.40
Ensminger (2000)	Kenya	No	0.44	0.18	0.54
Fehr and List (2004)	Costa Rica	Yes	0.40	0.32	0.96
	Costa Rica	No	0.59	0.44	1.32
Greig and Bohnet (2005)	Kenya	No	0.30	0.41	0.82
Johansson-Stenman et al. (2004)	Bangladesh	No	0.46	0.46	1.38
Karlan (2005)	Peru	No	0.46	0.43	1.12
Koford (2001)	Bulgaria	Yes	0.63	0.46	1.34
Lazzarini, et al. (2004)	Brazil	Yes	0.56	0.34	0.80
Mosley and Verschoor (2003)	Uganda	No	0.49	0.33	0.99
Schechter (2007)	Paraguay	No	0.47	0.44	1.31
Wilson and Bahry (2002)	Russia	No	0.51	0.38	1.15

Notes: a. this figure differs from Buchan et al. (2006) because they include the second-mover's endowment in the amount of money available to send back.

Contenido

1. La naturaleza del problema
2. La validez
3. Field studies: una taxonomía
4. Aprender de los experimentos de campo: Roots of sociality
5. WEIRD
6. Evidencia across country
7. **Algunos consejos prácticos**

Consejos prácticos

- Usar non standard subject pool no tiene que ser “fancy” sino relevante por la pregunta de investigación (contraejemplo, PD with prisoners);
- Contexto puede ayudar en entender mejor, y hay que usarlo para familiarizar los sujetos;
- Controlar donde sea possible la circulación de info afuera de las sesiones;
- Compartir resultados y otras medidas para que las personas no se sientan “estudiados”, sobre todo en estudios “comunitarios”