Inequality and Fairness

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Plan for the presentation

- Background: Fairness, inequality, and personal responsibility

- **New Paper**: Cutthroat capitalism versus cuddly socialism: Are Americans more meritocratic and efficiency-seeking than Scandinavians? (with Ingvild Almås and Alexander W. Cappelen)

- Further important research questions.

- **Collaborative work**

The New York Times

September 25, 2008, 6:16 pm | 28 Comments

Economists of the World, Unite!

As economists, we want to express to Congress our great concern for the plan proposed by Treasury Secretary Paulson to deal with the financial crisis. We are well aware of the difficulty of the current financial situation and we agree with the need for bold action to ensure that the financial system continues to function. We see three fatal pitfalls in the currently proposed plan:

1) Its fairness. The plan is a subsidy to investors at taxpayers' expense. Investors who took risks to earn profits must also bear the losses. Not every business failure carries systemic risk. The government can ensure a well-functioning financial industry, able to make new loans to creditworthy borrowers, without bailing out particular investors and institutions whose choices proved unwise.

2) Its ambiguity. Neither the mission of the new agency nor its oversight are clear. If taxpayers are to buy illiquid and opaque assets from troubled sellers, the terms, occasions and methods of such purchases must be crystal clear ahead of time and carefully monitored afterwards.

3) Its long-term effects. If the plan is enacted, its effects will be with us for a generation. For all their recent troubles, America's dynamic and innovative private capital markets have brought the nation unparalleled prosperity. Fundamentally weakening those markets in order to calm short-run disruptions is desperately short-sighted.

Inequality

The rich and the rest

What to do (and not do) about inequality

Jan 20th 2011 | from the print edition

The Economist/Corbis

- "It seems unfair that footballers, bankers, and tycoons earn more money than they know what to do with whereas jobless folk and single parents struggle to pay the rent...Yet it also seems unfair to take money from those who have worked hard and give it to those who have not, or to take away the profits of those who have risked their life savings to bring a new intervention to market in order to help those who have risked nothing. Different societies choose to deal with this conflict in different ways."

The importance of personal responsibility

- **A fundamental moral ideal** in Western societies is that people should be held personally responsible for the consequences of their choices (Greenfield, 2011).

- Heated political debate about how to **interpret** the idea of personal responsibility.
    - It has been argued in recent years that American politics has become **a personal responsibility crusade** (Hacker, 2006).
    - The significant drop in government transfers to single parents and families with nonemployed members appears to be rooted in the presumption that these groups should be held personally responsible for their situation (Robert A. Moffitt's Presidential Address to the Population Association of America "The Deserving Poor, the Family, and the U.S. Welfare System").

- Personal responsibility plays a prominent role **in many spheres of society.**
    - Much of the health policy debate on life-style related diseases (high cholesterol and obesity) rests on how to understand the notion of personal responsibility (Wikler, 2002; Brownell, 2010).

Fairness and personal responsibility

- **Fairness** matters for people, but is not considered to be the same as **equality** - people seem to make a distinction between fair and unfair inequalities.

- People appear to relate fairness to some level of **personal responsibility** (beyond what is justified on purely incentive grounds).

- The idea of personal responsibility seems to involve considerations of **merit** (choices, talent, and effort) and **luck**.

Social preferences: What motivates individual distributive behavior?

- **Classical social preference models:** Largely been a focus on how people trade off selfish concerns and a dislike for inequalities (Fehr and Schmidt, QJE, 1998; Bolton and Ockenfels, AER, 2000; Charness and Rabin, QJE, 2002).

- **Experimental approach**: Study distributive behavior in a dictator game, where the money to be distributed is "manna from heaven" - premise is that *it is fair to split equally*.

- **Main finding**: There is substantial heterogeneity in the importance attached to avoiding inequality; a large share deviate from the model of a narrowly selfish individual.

Our focus: Social preferences and personal responsibility

- In a series of papers, we have studied how the idea of personal responsibility shapes distributive behavior (Cappelen, Hole, Sørensen, and Tungodden, AER, 2007; Cappelen, Sørensen, and Tungodden, EER, 2010; Almaas, Cappelen, Sørensen, and Tungodden, Science, 2010; Cappelen, Moene, Sørensen, and Tungodden, JEEA,2013; Cappelen, Konow, Sørensen, and Tungodden, AER, 2013, Cappelen, Eichle, Hughdahl, Specht, Sorensen, and Tungodden, PNAS, 2015; Cappelen, Halvorsen, Sorensen, and Tungodden, JEEA, forthcoming).

- **Background**: Motivated by the normative literature on fairness and personal responsibility in political philosophy and economics (Roemer, Fleurbaey, and others).

- **Approach**: Study distributive behavior in real-effort dictator games, where the money to be distributed is created in a earnings phase - pre-redistribution inequality reflects differences in *merit and luck*. Both structural and non-structural analysis.

- **Main finding**: There is substantial *heterogeneity* in what people consider fair in any particular situation. We also show that with this approach, we get distributive behavior in the lab *aligned with distributive behavior outside the lab.*

Our framework

$$U(y; \cdot) = y - \beta(y - m)^2/2X,$$

$$y^* = m + X/\beta,$$

New paper: Cutthroat capitalism versus cuddly socialism (with Ingvild Almaas and Alexander W. Cappelen

- Provides a **novel comparison** of social preferences in the US and Scandinavia (Norway).
- Provides **causal evidence** of the importance of the *source of inequality (merit versus luck)* and the *cost of redistribution* for inequality acceptance in *the general population*.
- Introduces a **new approach** to conducting nationally representative economic experiments.

US versus Scandinavia: Very different societies in terms of inequality, redistribution and welfare policies

- More poverty and inequality in the US than in Scandinavia (World Bank, 2013).
  - Huge difference in overall income inequality and relative poverty.
  - Top 1% of earners capturing almost 18-19% of total national income in the US, around 5-8% in Scandinavia (Atkinson, Piketty and Saez, 2011, www.knoema.com).

- Scandinavian countries have "much stronger safety nets, more elaborate welfare states, and more egalitarian income distributions" (Acemoglu, Robinson, Verdier, 2013).

Income inequality: Two extremes in the OECD
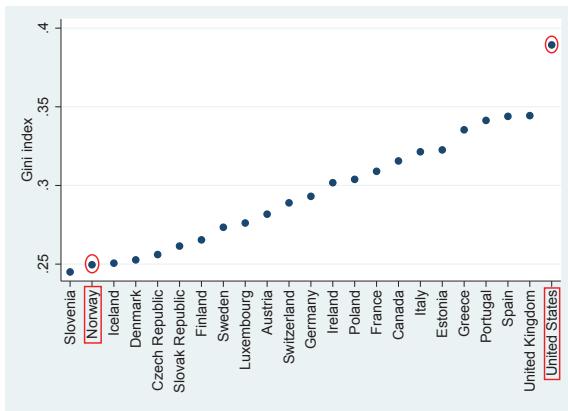
Gini inequality measure (disposable income) for countries in Europe and North America. The data are from the *OECD stat extract* webpage.

Poverty rates much higher in the US than in Scandinavia

Figure 5.1. **Relative poverty rates for different income thresholds, mid-2000s**
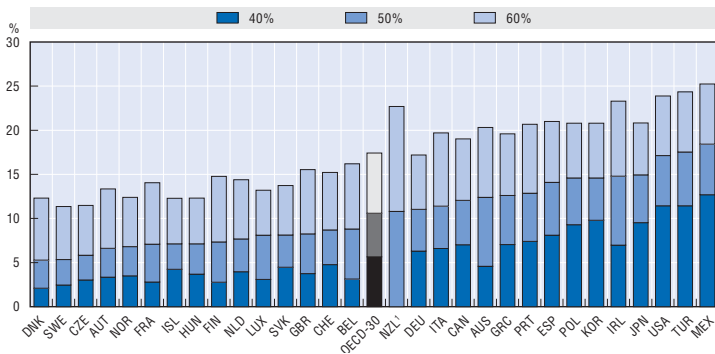Relative poverty rates at 40, 50 and 60% of median income thresholds

Figure from OECD (2008): *Growing Unequal? Income Distribution and Poverty in OECD Countries.*

US versus Scandinavia: Very different societies in terms of inequality, redistribution and welfare policies

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A puzzle for economists

The Opinion Pages

The Conscience of a Liberal
PAUL KRUGMAN

Notes on the Political Economy of Redistribution

SEPTEMBER 21, 2012 10:09 AM · 235 Comments

more redistribution. What we see in practice, however, is that European countries with relatively low inequality of market income do much more redistribution than the United States, with its high inequality – and that as America has gotten more unequal, its tax and transfer system has grown less, not more redistributive.

I don't think we have a full explanation of these awkward facts. But the model is

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Bernie Sanders: US should be more like socialist Scandinavia

By Marisa Schultz

May 3, 2015 | 2:30pm

What can explain the huge difference between the US and Scandinavia in inequality and redistribution?

- The **source of inequality** may differ.
    - May reflect differences in **effort** in the US and differences in **luck** in Europe (Piketty, 1995; Alesina and Angeletos, 2005; Bènabou and Tirole, 2006).

- The **cost of redistribution** may differ.
    - The cost of redistribution may be greater in the US than in Scandinavia (Kuziemko, Norton, Saez, and Stantcheva, 2015; Acemoglu, Robinson, Verdier, 2013).

Our focus: social preferences

- People's social preferences may **affect** inequality and redistribution in at least two important ways:
  - The political support for redistribution.
  - The pre-redistribution income inequality (generated for example in markets).

- People's social preferences may clearly be **shaped** by the redistributive institutions that are present in a society.

Research question I: Do Americans and Scandinavians differ in their social preferences?

- **Approach:** We study the distributive behavior of Americans and Scandinavians in **identical economic environments**, where they face **the same source of inequality** and **the same cost of redistribution**?
    - Do we observe more inequality acceptance in the US (cutthroat capitalism) than in Scandinavia (cuddly socialism) when considering outcomes in a real labor market?
    - Do Americans and Scandinavians differ in what they consider to be a fair inequality and in how much they care about fairness?

- Different social preferences in the US and Scandinavia may contribute to explain the observed differences in inequality and redistribution.

Research question II: What causes inequality acceptance?

- How important are **the source of inequality** and **the cost of redistribution** for inequality acceptance?

- A growing experimental literature has considered each of these dimensions separately, but **few studies have looked at them in combination** (Konow, 2000, Andreoni and Miller, 2002; Charness and Rabin, 2002; Engelmann and Strobel, 2004; Fehr, Naef, and Schmidt, 2006; Fisman, Kariv, and Markovits, 2007; Cappelen, Hole, Sørensen, and Tungodden, 2007; Bellemare, Kröger, and van Soest, 2008; Fehr, Bernhard, and Rockenbach, 2008; Cappelen, Sørensen, and Tungodden, 2010; Almås, Cappelen, Sørensen, and Tungodden, 2010; Cappelen, Konow, Sørensen, and Tungodden, 2013; Fehr, Glätzle-Rützler, and Sutter, 2013; Fisman, Jakiela and Kariv, 2014, Durante, Putterman, and van der Weele, 2014).

Pre-analysis plan

- Describes the main research questions and formulates the main hypotheses to be tested.

- Describes the design in detail.

- Describes the identification strategy.

- The plan is publicly available and was posted on AEA RCT registry before we opened any data for analysis.

- The analysis I present today was described in the pre-analysis plan.

Plan for the presentation of the paper

- The design of the experiment.

- Simple theoretical framework.

- Results.

- Heterogeneity analysis within countries.

- External validity.

Main features of the design

- **Experimental design: Spectators** decide how to pay **workers** for a job they have conducted.

- **Workers** recruited on an international online labor market (mturk).
  - Same pool used in the US and Norway.

- **Spectators** recruited and participating through an international data-collection agency (Norstat/Research Now).
  - Representative samples of the populations in the US and Norway.

Design: workers

- When recruited, the workers were promised a participation fee of 2 USD and told that they could earn additional money.

- The workers worked on three different assignments, altogether it took them approximately 20 minutes to finish.
  - Two sentence unscrambling tasks (where there is no measure of productivity).
  - One code recognition task (productivity measured).

- After completing the assignments, they were told how their earnings would be decided.

- We recruited 1334 workers (each worked on 3 assignments giving us 2000 unique pairs of assignments/workers).

Design: spectators

- In each country, we recruited 1000 participants who are nationally representative (+ 18 years old) on observable characteristics.

- The participants acted as spectators (Cappelen, Konow, Sørensen, and Tungodden, 2013) and determined the distribution of earnings between a pair of workers.

- Three treatments, between-individual design.
  - Luck (L).
  - Merit (M).
  - Efficiency (E), introducing a cost of redistribution.

Spectators: Descriptive statistics

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Table 2: Descriptive statistics - background variables for the spectator sample

	United States	Norway
Share female	0.51	0.48
Age		
Median	44	53
p10	23	27
p90	67	72
Eduction shares		
High school or less	0.32	0.38
College	0.38	0.29
Higher education	0.30	0.33
Income (USD)		
Median	5500	5385
p10	1500	2071
p90	16250	8700
Share conservative	0.31	0.33
Number of participants	1000	1000

Treatment 1: Luck

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. A few days ago two individuals, let us call them worker A and worker B, were recruited via an **international online market place** to conduct an assignment.

They were each offered a participation compensation of 2 USD regardless of what they were paid for the assignment. **After completing the assignment, they were told that their earnings from the assignment would be determined by a lottery. The worker winning the lottery would earn 6 USD for the assignment and the other worker would earn nothing for the assignment.** They were not informed about the outcome of the lottery. However, they were told that a third person would be informed about the assignment and the outcome of the lottery, and would be given the opportunity to redistribute the earnings and thus determine how much they were paid for the assignment.

You are the third person and we now want you to choose whether to redistribute the earnings for the assignment between worker A and worker B. Your decision is completely anonymous. The workers will receive the payment that you choose for the assignment within a few days, but will not receive any further information.

Treatment 1: Luck

Worker A won the lottery and earned 6 USD for the assignment, thus worker B earned nothing for the assignment.

Please state which of the following alternatives you choose:

I do not redistribute:

- worker A is paid 6 USD and worker B is paid 0 USD.

I do redistribute:

- worker A is paid 5 USD and worker B is paid 1 USD.

- worker A is paid 4 USD and worker B is paid 2 USD.

- worker A is paid 3 USD and worker B is paid 3 USD.

- worker A is paid 2 USD and worker B is paid 4 USD.

- worker A is paid 1 USD and worker B is paid 5 USD.

- worker A is paid 0 USD and worker B is paid 6 USD.

Treatment 2: Merit

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. A few days ago two individuals, let us call them worker A and worker B, were recruited via an international online market place to conduct an assignment.

They were each offered a participation compensation of 2 USD regardless of what they were paid for the assignment. **After completing the assignment, they were told that their earnings from the assignment would be determined by their productivity. The most productive worker would earn 6 USD for the assignment and the other worker would earn nothing for the assignment.** They were not informed about who was the most productive worker. However, they were told that a third person would be informed about the assignment and who was most productive, and would be given the opportunity to redistribute the earnings and thus determine how much they were paid for the assignment.

You are the third person and we now want you to choose whether to redistribute the earnings for the assignment between worker A and worker B. Your decision is completely anonymous. The workers will receive the payment that you choose for the assignment within a few days, but will not receive any further information.

Treatment 2: Merit

Worker A was more productive and earned 6 USD for the assignment, thus worker B earned nothing for the assignment.

Please state which of the following alternatives you choose:

I do not redistribute:

- worker A is paid 6 USD and worker B is paid 0 USD.

I do redistribute:

- worker A is paid 5 USD and worker B is paid 1 USD.

- worker A is paid 4 USD and worker B is paid 2 USD.

- worker A is paid 3 USD and worker B is paid 3 USD.

- worker A is paid 2 USD and worker B is paid 4 USD.

- worker A is paid 1 USD and worker B is paid 5 USD.

- worker A is paid 0 USD and worker B is paid 6 USD.

Treatment 3: Efficiency

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. A few days ago two individuals, let us call them worker A and worker B, were recruited via an international online market place to conduct an assignment.

They were each offered a participation compensation of 2 USD regardless of what they were paid for the assignment. After completing the assignment, they were told that their earnings from the assignment would be determined by a lottery. The worker winning the lottery would earn 6 USD for the assignment and the other worker would earn nothing for the assignment. They were not informed about the outcome of the lottery. However, they were told that a third person ...

You are the third person and we now want you to choose whether to redistribute the earnings for the assignment between worker A and worker B. Your decision is completely anonymous. The workers will receive the payment that you choose for the assignment within a few days, but will not receive any further information.

Worker A won the lottery and earned 6 USD for the assignment, thus worker B earned nothing for the assignment. **There is a cost of redistribution. If you choose to redistribute, increasing worker B's payment by 1 USD will decrease worker A's payment by 2 USD.**

Treatment 3: Efficiency

Worker A won the lottery and earned 6 USD for the assignment, thus worker B earned nothing for the assignment.

Please state which of the following alternatives you choose:

I do not redistribute:

- worker A is paid 6 USD and worker B is paid 0 USD.

I do redistribute:

- worker A is paid 4 USD and worker B is paid 1 USD.

- worker A is paid 2 USD and worker B is paid 2 USD.

- worker A is paid 0 USD and worker B is paid 3 USD.

Important design choices

- **Real choice**: The decision made by a spectator was matched with a unique pair of workers who were recruited on an online market platform.

- **Same pre-redistribution earnings in all situations**: All spectators faced the pre-redistribution earnings of (6 USD, 0 USD).

- **Complete information**: Spectators had complete information about the source of the inequality and the cost of redistribution.

Theoretical framework

- We provide a simple social preference model to guide the interpretation of the results.
- We assume that the spectators care about **fairness** and **efficiency**:

$$V(y; \cdot) = -\frac{\beta}{2}(y - m(j))^2 - c(j)y \tag{1}$$

- where $\beta > 0$ is the weight attached to fairness relative to efficiency, y is the share of total income to the worker with no pre-redistribution earnings. $m(j)$ is what the spectator perceives as the fair share to the worker with no pre-redistribution earnings in treatment j, and $c(j)$ is the cost of redistribution in treatment j, $j = L, M, E$.

Optimal behavior (interior solution)

$$y = m(j) - \frac{c(j)}{\beta} \qquad (2)$$

- We observe that:
    - $\beta \to 0$ implies that $y \to 0$.
    - $\beta \to \infty$ implies that $y \to m(j)$.

Treatment differences

- Identify the importance of **the source of inequality for fairness considerations:**

$$y(L) - y(M) = m(L) - m(M) \tag{3}$$

- Identify the relative importance of **a cost of redistribution** (assuming that $m(L) = m(E)$):

$$y(L) - y(E) = \frac{c(E)}{\beta} \tag{4}$$

Summary: Treatments and identification

All treatments: Earnings of (6 USD, 0 USD).

- Only difference: Source of inequality or cost of redistribution.

The three treatments enable us to identify:

- General inequality acceptance.
- Causal effect of the source of inequality.
- Causal effect of a cost of redistribution.

Share implementing equality (US):
Luck
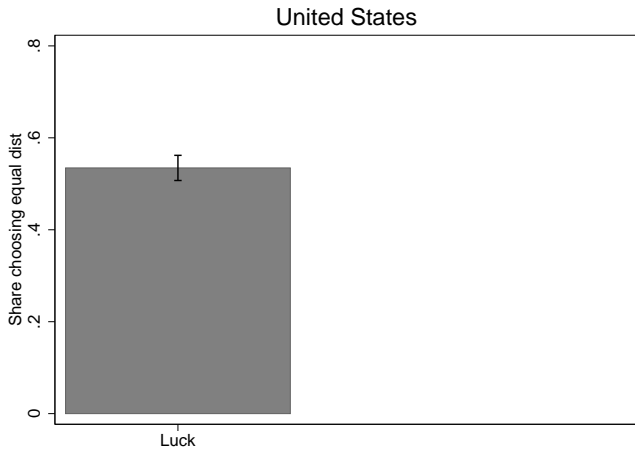
Share implementing Equality (US):
Luck vs Merit

Share implementing equality (US):
Luck

United States
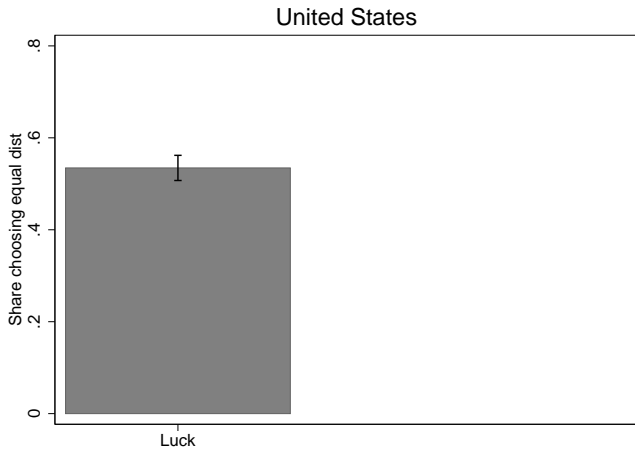
Share implementing equality (US):
Luck vs Efficiency
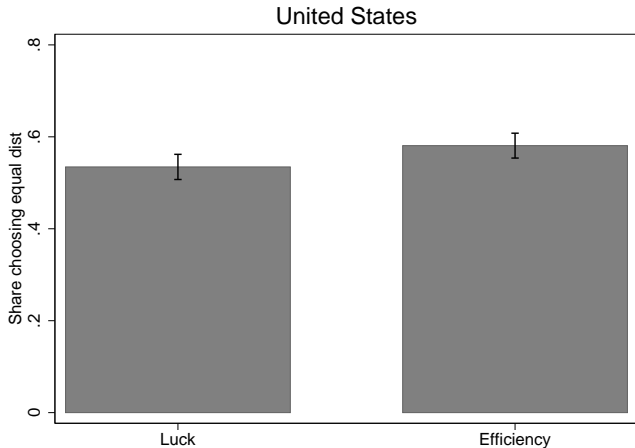
Share implementing equality (US):
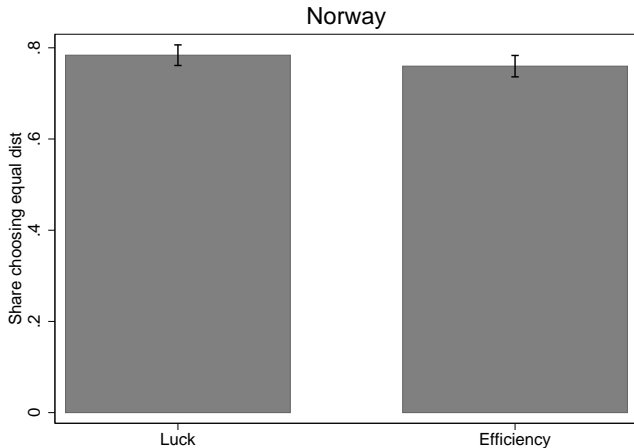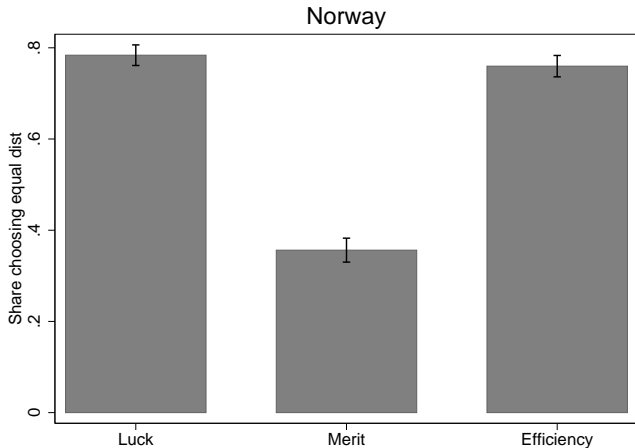## **Overview**
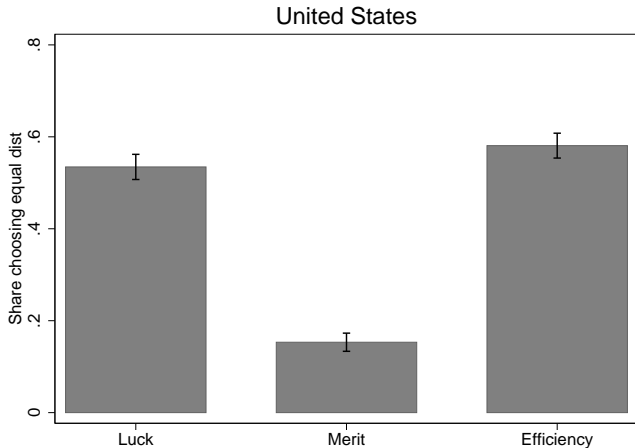
Share implementing equality (Norway):
Luck
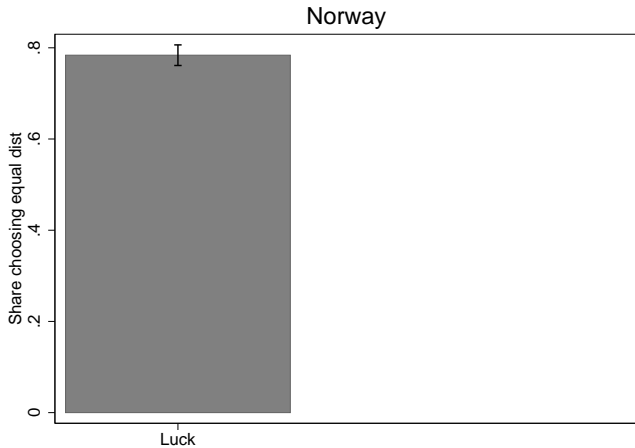
Norway

Share implementing equality (Norway):
Luck vs Merit
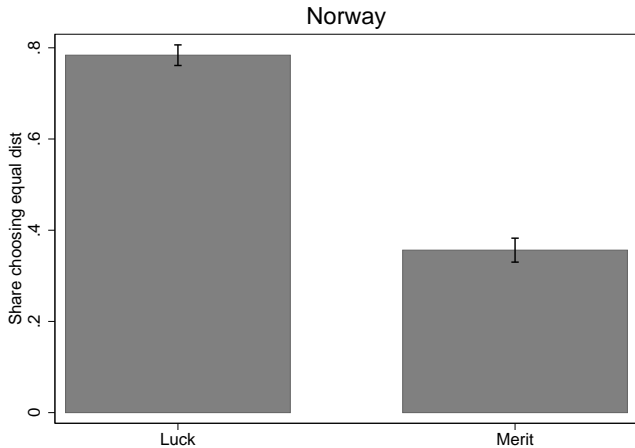
Share implementing equality (Norway):
Luck
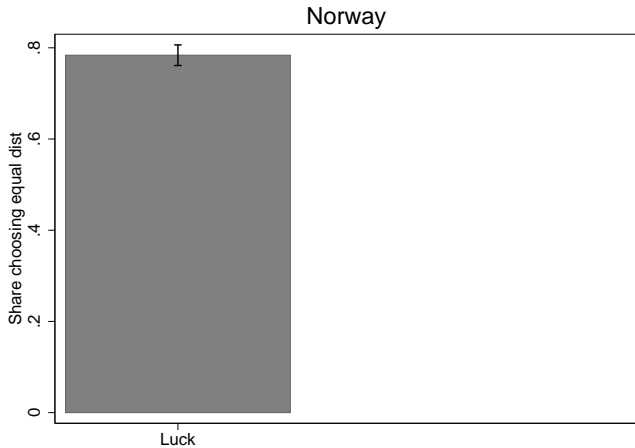
Norway

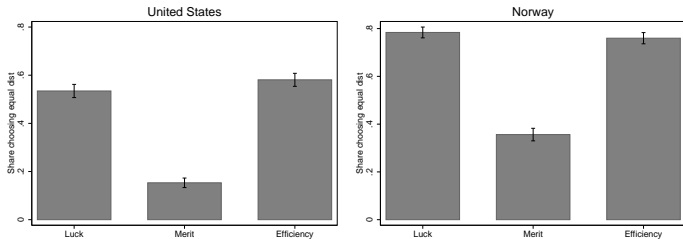# Share implementing equality (Norway):
Luck vs Efficiency

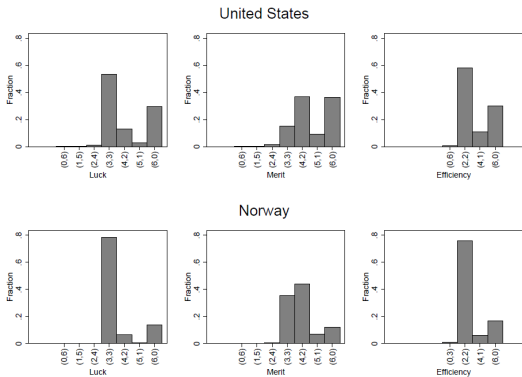# Share implementing equality (Norway): **Overview**

Share implementing equality:
US vs Norway

Distribution of choices: Histograms

Figure 2: Distribution of choices

Inequality acceptance

- Inequality implemented by spectator:

$$e = \frac{|x - y|}{x + y}.$$ (5)

- Equivalent to the Gini coefficient in this economic environment.

Regression: Empirical specification

$$e_i = \alpha + \alpha_M M_i + \alpha_E E_i + \delta_M M_i N_i + \delta_E E_i N_i + \delta N_i + \epsilon_i, \tag{6}$$

$M_i = 1$ if in merit treatment.
$E_i = 1$ if in efficiency treatment.
$N_i = 1$ if from Norway.

Regression results

	(Coefficient)	(Standard error)
Merit (US)	0.195***	(0.032)
Efficiency (US)	0.011	(0.035)
Merit x Norway	-0.040	(0.041)
Efficiency x Norway	0.038	(0.045)
Norway	-0.196***	(0.031)
lincom:		
Merit (Norway)	0.155***	(0.026)
Efficiency (Norway)	0.049*	(0.029)

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Back to the theoretical framework

- How can we interpret the findings in light of our model

$$V(y;\cdot) = -\frac{\beta}{2}(y - m(j))^2 - c(j)y. \qquad (7)$$

- **Main message**: The difference between the US and Scandinavia is related to differences in fairness view (*m*). No difference in the relative importance of fairness and efficiency (*β*); fairness much more important for inequality acceptance than efficiency in both countries.

- Let us now introduce the following three **fairness types**:
  - **Libertarians:** Accept inequalities due to both luck and merit.
  - **Meritocrats:** Accept some inequality when there are differences in merit, but not inequalities reflecting differences in luck.
  - **Egalitarians:** Find all inequalities unfair.

Huge difference in the distribution of fairness types between the US and Norway:
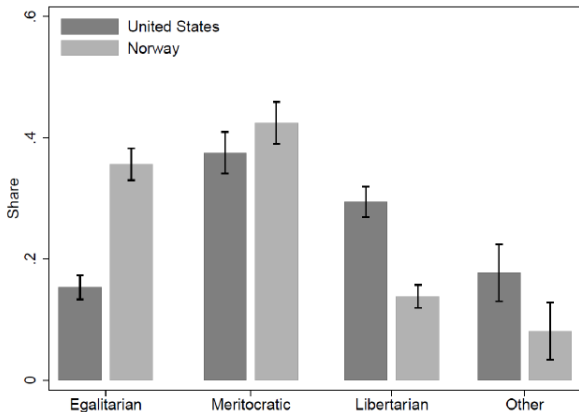
Heterogeneity analysis

Also specified in the pre-analysis plan.

- Are **conservatives**:
  - Generally accepting more inequalities?
  - Accepting more inequalities if they are caused by differences in merits?
  - Accepting more inequalities if redistribution is costly?

- Is there a **socioeconomic gradient** in social preferences?

- Is there a **gender difference** in social preferences?

# Robustness of main findings

- **Main findings I:**
  - Inequality acceptance is greater in the US than in Norway for all subgroups.
  - There is no subgroup for which merit or efficiency considerations are more important in the US than in Norway.

- **Main findings II:**
  - Merit causes increased inequality acceptance for all subgroups.
  - The cost of redistribution has little effect for most subgroups.

# External validity: Experimental behavior related to inequality acceptance in society?

"A society should aim to equalize incomes" – share that agrees:
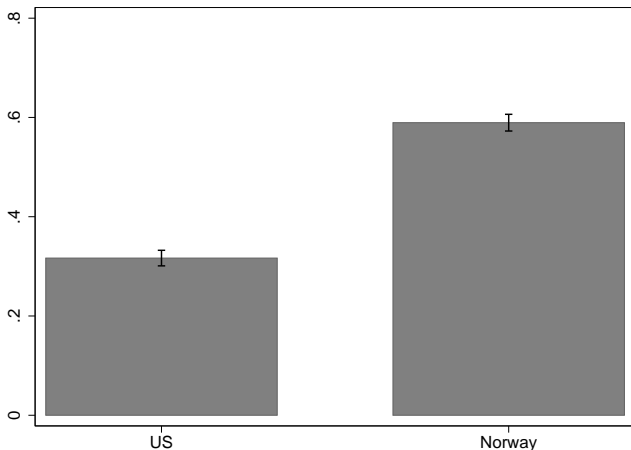
External validity: Inequality acceptance in the experiment strongly associated with inequality acceptance in society
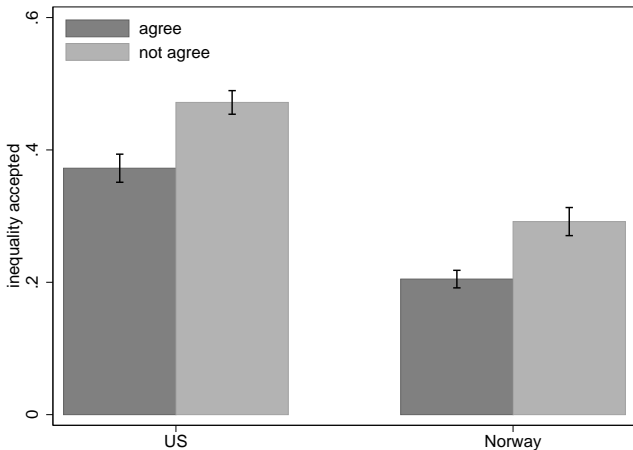
External validity: Inequality levels in the experiment very close to inequality levels in society
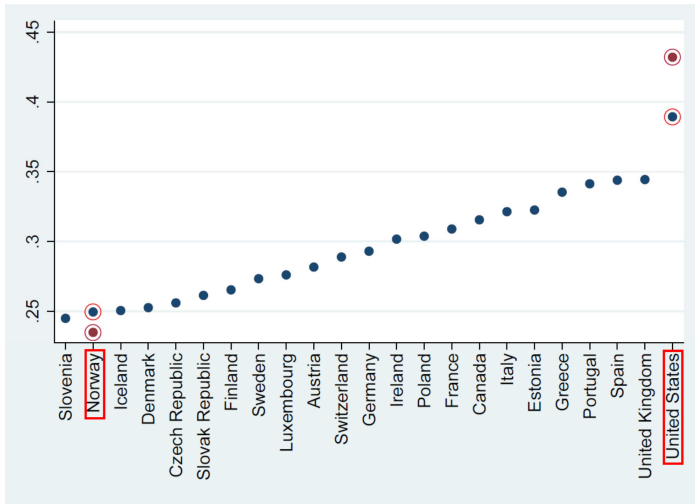
Further important research questions I

- **What shapes our views on personal responsibility** (Cappelen, Rabin, Sørensen, and Tungodden, work in progress; Cappelen, List, Samek, and Tungodden, 2016). We are planning a comparative study of fairness views on personal responsibility in 60 countries, including a study of how it develops in childhood and adolescence.

- **Do we attach too much importance to responsibility:** What is a morally relevant choice? (Cappelen, Fest, Sørensen, and Tungodden, 2016)

- **Do people gender/race discriminate when assigning personal responsibility** (Cappelen, Falch, and Tungodden, 2016)?

Further important research questions II

- **Why do people reward talent, but not other types of luck?** Do people really draw the responsibility cut between choice and circumstance or is it rather between personal and impersonal factors? (Bartling, Cappelen, Skarpeid, Sørensen, and Tungodden, work in progress)

- **How do people handle personal responsibility when there is imperfect information about the source of inequality?** (Cappelen, Moene, Skjelbred, and Tungodden, work in progress; Bonn, Cappelen, de Haan, and Tungodden, work in progress; Cappelen, Mollerstrom, Reme, and Tungodden, work in progress)

- **Second-best fairness:** How do people trade off false positives and false negatives? (Cappelen, Cappelen, and Tungodden, 2016).

- **How are ideas of personal responsibility affected by** people having an unlevel playing field, the consequences of choices partly being determined by the choices of others, and choices being intentionally influenced by others (nudging policies).

- **Many more important issues** - the philosophical literature contains a number of important ideas that potentially may be important for understanding distributive behavior!