

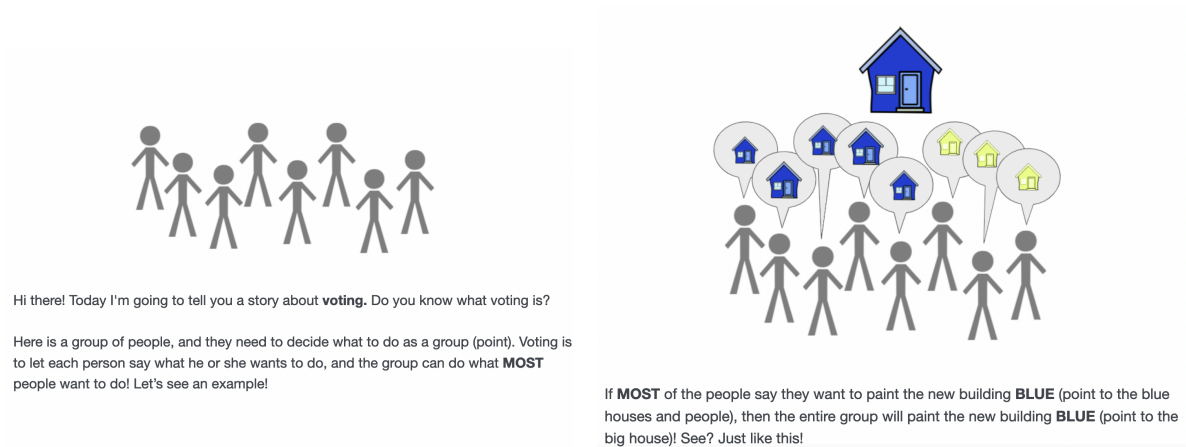
Supplemental Materials

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1) Sample testing stimuli in voting familiarization (Studies 1 & 2):

Figure S1. Testing stimuli for voting introduction trials, included in Studies 1 and 2



Script:

Hi there! Today I'm going to tell you a story about voting. Do you know what voting is?

Here is a group of people, and they need to decide what to do as a group. Voting is to let each person say what he or she wants to do, and the group can do what **MOST** people want to do!

Let's see an example!

For example, let's say these people are deciding between whether to paint the new building in town **Blue** or **Yellow**. They are going to vote to decide!

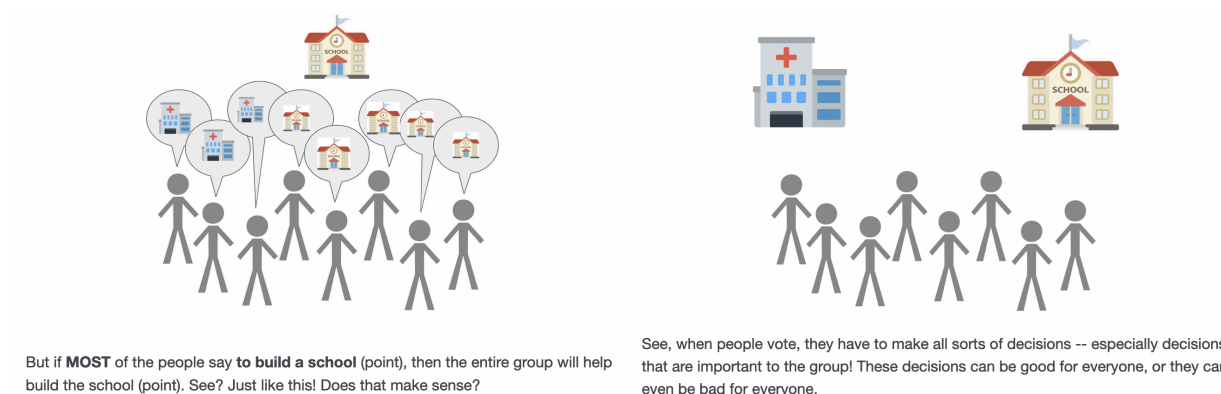
If **MOST** of the people say they want to paint the new building **BLUE**, then the entire group will paint the new building **BLUE**! See? Just like this!

But if **MOST** of the people say **YELLOW**, then the entire group will paint the new building **YELLOW**. See? Just like this! Does that make sense?

Now that we know what voting is, I'm going to tell you my story. Are you ready?

2) Sample testing stimuli in voting familiarization (Study 3)

Figure S2. Testing stimuli for voting introduction trial, included in Study 3



Script:

Hi there! Today I'm going to tell you a story about **voting**. Do you know what voting is?

Here is a group of people, and they need to decide what to do as a group. Voting is to let each person say what he or she wants to do, and the group can do what **MOST** people want to do!

Let's see an example!

For example, let's say these people are deciding to build a new building in town. They can decide to build a hospital, which is a place where people go to feel better, or a school, which is a place where people go to learn. They are going to vote to decide!

If **MOST** of the people say they want to build a hospital (point to the hospital and people), then the entire group will help build the hospital (point to the big hospital)! See? Just like this!

But if **MOST** of the people say **to build a school**, then the entire group will help build the school. See? Just like this! Does that make sense?

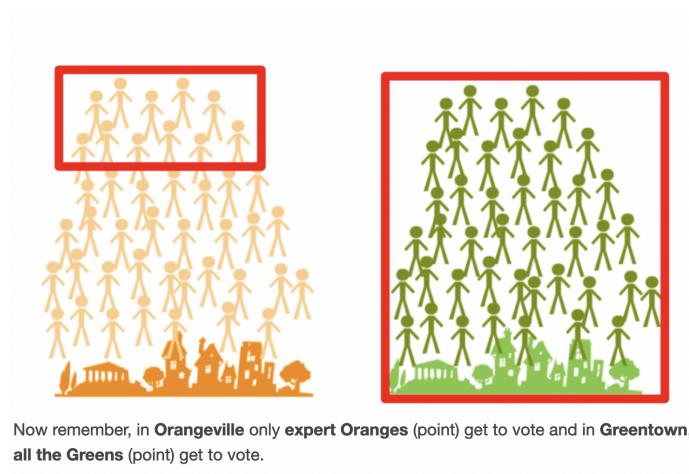
See, when people vote, they have to make all sorts of decisions -- especially decisions that are important to the group! These decisions can be good for everyone, or they can even be bad for everyone.

Now that we know what voting is, I'm going to tell you my story. Are you ready?

3) Sample testing stimuli in Study 1:

Figure S3. Testing stimuli for universal vs expert-led voting trials in Study 1.

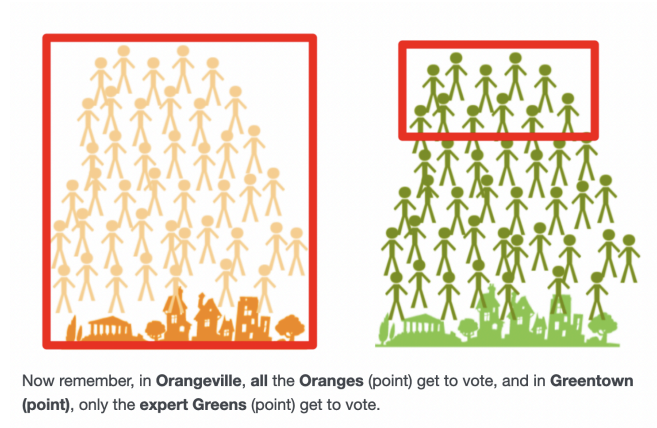
Sequence 1:



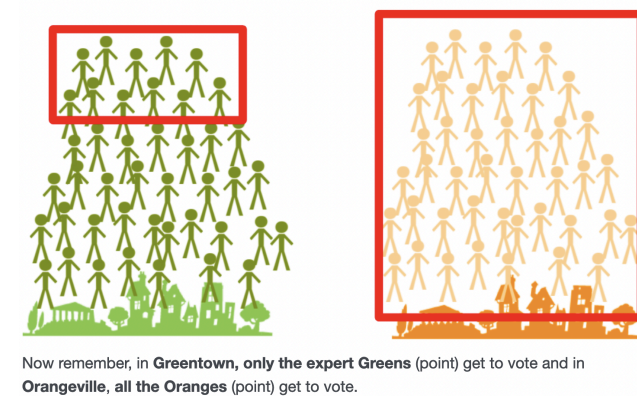
Sequence 2:



Sequence 3:



Sequence 4:



Script:

Today I'm going to tell you about **two** different groups of people:

These ones on the **left** are called **Greens** and they live in **Greentown**. These ones on the **right** are called **Oranges** and they live in **Orangeville**.

Both towns have to make all sorts of decisions for their town, but they have **different ways** to decide what to do.

In **Greentown**, the Greens decide by letting a **FEW Greens** vote to decide what to do.

These Greens who get to decide are **experts** , which means that they **know a lot** about the town and know what is the **best decision** to make. **Other Greens** **know less** about the town and do **not know the best decision** to make.

So, in Greentown, **only the few Greens** who know what is best **get to vote**. Which means that this town **will do** whatever these **expert Greens think is right**.

In **Orangeville**, the Oranges decide by letting **ALL** Oranges vote to decide what to do.

Some Oranges are **experts**, which means that they **know a lot** about the town and know what is the **best decision** to make. **Other Oranges** **know less** about the town and do **not know the best decision** to make.

So, in Orangeville, **ALL** Oranges **get to vote**. Which means that this town will do whatever **ALL the Oranges think is right**.

Now remember, in **Greentown**, **only the expert Greens** get to vote and in **Orangeville**, **all the Oranges** get to vote.

4) Sample testing stimuli in Study 2:

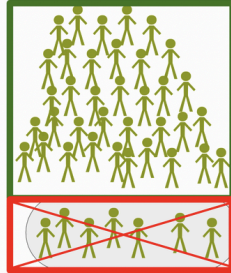
Figure S4. Testing stimuli for the three exclusionary voting trials in Study 2.

Clip art depictions of Blueville, Orangeville, and Greentown:



Arbitrary Exclusion Condition:

And these Greens, who like to wear purple shoes, **don't** get to vote to decide.



Do you think this is **fair** or **unfair**?

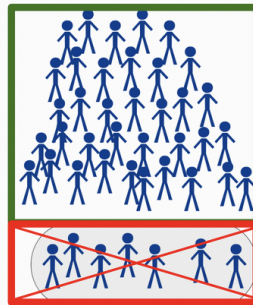


A **Little** (un)fair or **really** (un)fair?

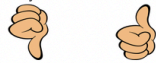


Competence Exclusion condition:

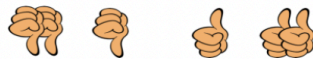
And these Blues, who aren't smart and don't know very much about the town, **don't** get to vote to decide.



Do you think this is **fair** or **unfair**?

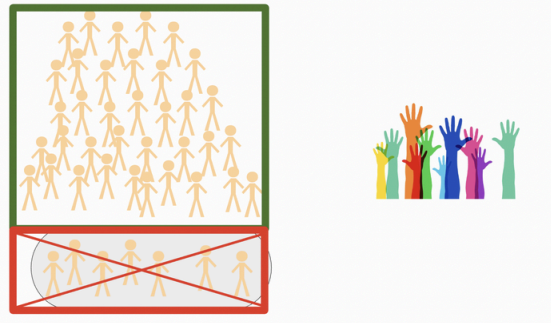


A **Little** (un)fair or **really** (un)fair?

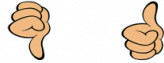


Moral Exclusion condition:

And these Oranges, who are **NOT nice and hurt others**, don't get to vote to decide.



Do you think this is **fair** or **unfair**?



A **Little** (un)fair or **really** (un)fair?

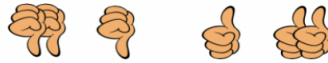


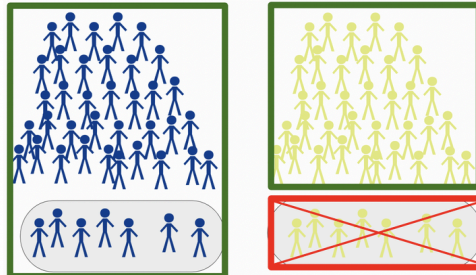
Figure S5. Testing stimuli for the three universal vs exclusive forced choice trials in Study

2.

Universal vs. Incompetence Exclusion Condition

In Blueville, **ALL** the Blues (point) vote to decide what to do. Look! These Blues get to vote to decide (point to top). And these Blues, **who aren't very smart and don't know much about the town**, also get to vote (point to bottom).

In Yellowville, **NOT all** the Yellows (point) vote to decide what to do. Look! These Yellows get to vote to decide (point to top). But these Yellows, **who aren't very smart and don't know much about the town**, **DON'T** get to vote (point).



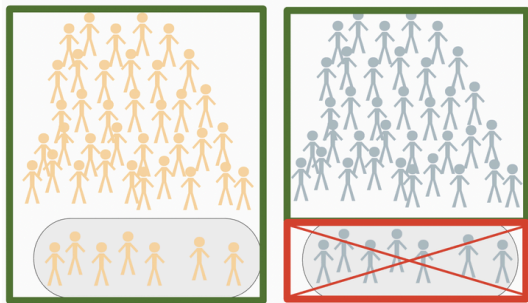
Can you tell me:

	Blue	Yellow	Neither
Which way of deciding is more fair ?	☐	☐	☐
Which way of deciding works faster ?	☐	☐	☐

Universal vs. Immorality Exclusion Condition:

In Orangeville, ALL the Oranges (point) vote to decide what to do. Look! These Oranges get to vote to decide (point to top). And these Oranges, **who aren't nice and hurt others**, also get to vote (point to bottom).

In Grayville, NOT all the Grays (point) vote to decide what to do. Look! These Grays get to vote to decide (point to top). But these Grays, **who aren't nice and hurt others**, DON'T get to vote (point).



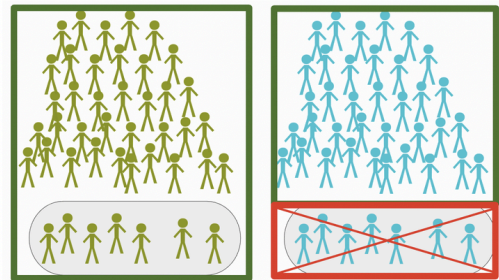
Can you tell me:

	Orange	Gray	Neither
Which way of deciding is more fair ?	☐	☐	☐
Which way of deciding works faster ?	☐	☐	☐

Universal vs. Arbitrary Exclusion Condition:

In Greenville, ALL the Greens (point) vote to decide what to do. Look! These Greens get to vote to decide (point to top). And these Greens, **who like to wear purple shoes**, also get to vote (point to bottom).

In Tealville, NOT all the Teals (point) vote to decide what to do. Look! These Teals get to vote to decide (point to top). But these Teals, **who like to wear purple shoes**, DON'T get to vote (point).



Can you tell me:

	Green	Teal	Neither
Which way of deciding is more fair ?	☐	☐	☐
Which way of deciding works faster ?	☐	☐	☐

Script:

Introduction

Welcome to our game! Look, here are **THREE different groups**. In our stories today, I'm going to tell you something about each group!

Competence

These are the **Blues** and they live in **Blueville**! There are different types of people in this Blueville.

Look here! These people in Blueville **aren't very smart**. They don't know very much about the town and don't know how to make good decisions. **They are very BAD at making decisions!**

Today, Blueville is going to make a **decision** about their town. **They're going to vote to decide!**

Today, Blueville is going to only let **some** people vote to decide.

So these Blues, they will get to vote to decide.

And these Blues, who aren't smart and don't know very much about the town, don't get to vote to decide.

Morality

These are the Oranges and they live in Orangeville. There are different types of people in this Orangeville. Look here! These people in Orangeville are **NOT nice**. They are mean to other people in the town and they hurt others. They are **bad people!**

Today, Orangeville is going to **make a decision** in their town. They're going to **vote** to decide!

Today, Orangeville is going to only let **some** people vote.

So these Oranges, they will get to vote to decide. And these Oranges, who are **NOT nice and hurt others**, don't get to vote to decide.

Arbitrary

These are the **Greens** and they live in **Greenville**. There are different types of people in this Greenville. Look here! These people in Greenville **like to wear purple shoes**. They like their purple shoes and wear them a lot.

Today, Greenville is going to make a decision. They're going to **vote to decide!** Today, Greenville is going to only let **some** people vote.

So these Greens, they will get to vote to decide. And these Greens, who **like to wear purple shoes**, don't get to vote to decide.

Forced Choice

Thanks for answering my questions about the THREE groups! I'm going to tell you something more about different groups.

In Blueville, ALL the Blues vote to decide what to do. Look! These Blues get to vote to decide. And these Blues, **who aren't very smart and don't know much about the town**, also get to vote.

In Yellowville, NOT all the Yellows vote to decide what to do. Look! These Yellows get to vote to decide. But these Yellows, **who aren't very smart and don't know much about the town**, DON'T get to vote.

...

In Orangeville, ALL the Oranges vote to decide what to do. Look! These Oranges get to vote to decide. And these Oranges, **who aren't nice and hurt others**, also get to vote.

In Grayville, NOT all the Grays vote to decide what to do. Look! These Grays get to vote to decide. But these Grays, **who aren't nice and hurt others**, DON'T get to vote .

...

In Greenville, ALL the Greens vote to decide what to do. Look! These Greens get to vote to decide. And these Greens, **who like to wear purple shoes**, also get to vote.

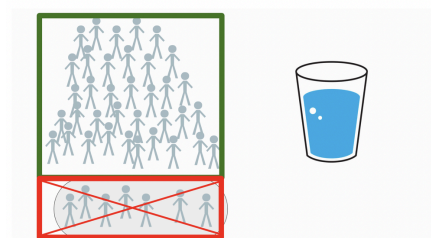
In Tealville, NOT all the Teals vote to decide what to do. Look! These Teals get to vote to decide. But these Teals, **who like to wear purple shoes**, DON'T get to vote.

5) Sample testing stimuli and script for Supplemental Studies 1a and 1b

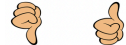
Figure S6. Testing stimuli for the 5 trials in Supplemental Study 1a (Incompetence).

Incompetence Exclusion Water and Voting trials:

And these Grays (point), who aren't smart and don't know much about the town, don't get to drink any water.



Do you think this is fair or unfair?



A Little (un)fair or really (un)fair?



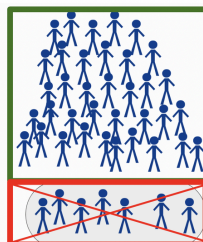
Really Unfair

A Little Unfair

A Little Fair

Really Fair

And these blues (point), who aren't smart and don't know much about the town, don't get to vote to decide.



Do you think this is fair or unfair?



A Little (un)fair or really (un)fair?



Really Unfair

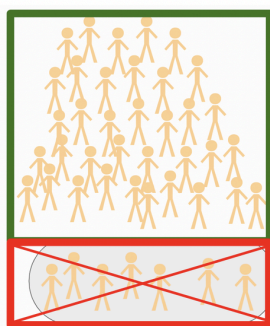
A Little Unfair

A Little Fair

Really Fair

Arbitrary Exclusion Water and Voting trials:

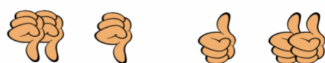
And these Peaches (point), who like to wear purple shoes, don't get to drink any water.



Do you think this is fair or unfair?



A Little (un)fair or really (un)fair?



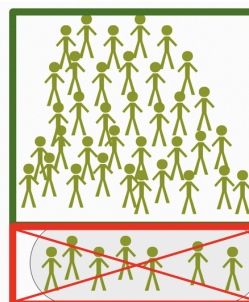
Really Unfair

A Little Unfair

A Little Fair

Really Fair

And these Olives (point), who like to wear purple shoes, don't get to vote to decide.



Do you think this is fair or unfair?



A Little (un)fair or really (un)fair?



Really Unfair

A Little Unfair

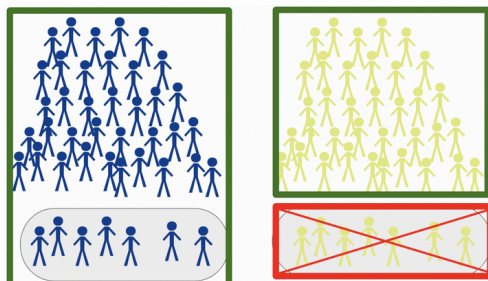
A Little Fair

Really Fair

Universal vs Incompetence Exclusion Trial:

In Blueville, ALL the Blues (point) vote to decide what to do. Look! These Blues get to vote to decide (point to top). And these Blues, **who aren't very smart and don't know much about the town**, also get to vote (point to bottom).

In contrast, NOT all the Yellows (point) vote to decide what to do. Look! These Yellows get to vote to decide (point to top). But these Yellows, **who aren't very smart and don't know much about the town**, DON'T get to vote (point).



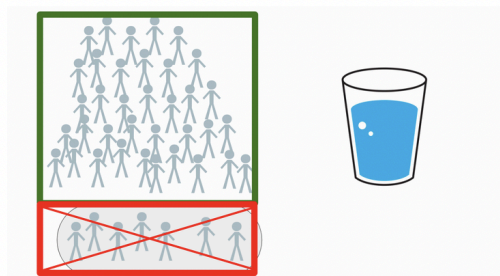
Now I have some questions for you:

	Blue	Yellow	Neither
Which way of deciding is more fair ?	☐	☐	☐
Which town would you rather live in?	☐	☐	☐
Which way of deciding works faster ?	☐	☐	☐

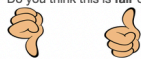
Figure S6. Testing stimuli for the 5 trials in Supplemental Study 1b (Morality).

Immorality Exclusion Water and Voting trials:

And these Grays (point), who are **NOT nice and hurt others**, don't get to drink any water.



Do you think this is **fair** or **unfair**?

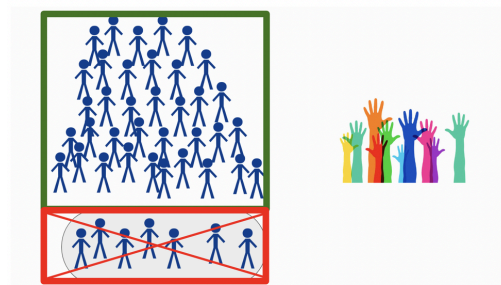


A Little (un)fair or really (un)fair?



Really Unfair	A Little Unfair	A Little Fair	Really Fair
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And these blues (point), who are **NOT nice and hurt others**, don't get to vote to decide.



Do you think this is **fair** or **unfair**?



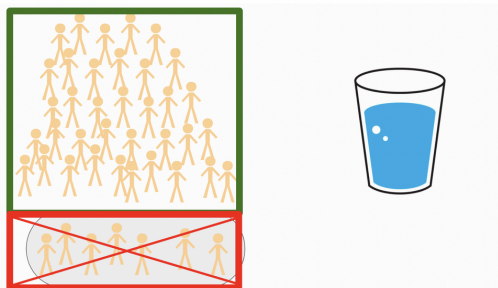
A Little (un)fair or really (un)fair?



Really Unfair	A Little Unfair	A Little Fair	Really Fair
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Arbitrary Exclusion Water and Voting trials:

And these Peaches (point), who like to wear purple shoes, don't get to drink any water.



Do you think this is fair or unfair?



A Little (un)fair or really (un)fair?



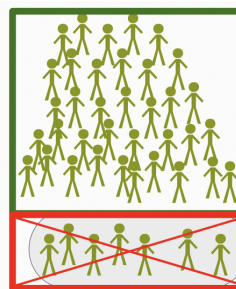
Really Unfair

A Little Unfair

A Little Fair

Really Fair

And these Olives (point), who like to wear purple shoes, don't get to vote to decide.



Do you think this is fair or unfair?



A Little (un)fair or really (un)fair?



Really Unfair

A Little Unfair

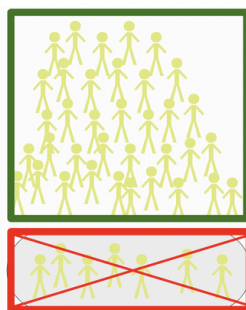
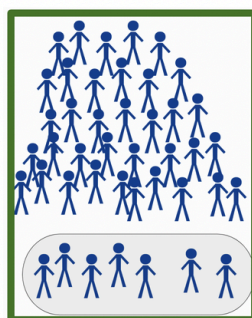
A Little Fair

Really Fair

Forced Choice Universal vs Moral Exclusion Trial:

In Blueville, ALL the Blues (point) vote to decide what to do. Look! These Blues get to vote to decide (point to top). And these Blues, who aren't nice and hurt others, also get to vote (point to bottom).

In contrast, NOT all the Yellows (point) vote to decide what to do. Look! These Yellows get to vote to decide (point to top). But these Yellows, who aren't nice and hurt others, DON'T get to vote (point).



Now I have some questions for you:

	Blue	Yellow	Neither
Which way of deciding is more fair?	☐	☐	☐
Which town would you rather live in?	☐	☐	☐
Which way of deciding works faster?	☐	☐	☐

Script:

Study 1a: Competence

Intro

Hi there! Today I'm going to tell you a story about voting. Do you know what voting is?

Here is a group of people, and they need to decide what to do as a group. Voting is to let each person say what he or she wants to do, and the group can do what MOST people want to do! Let's see an example!

For example, let's say these people are deciding to build a new building in town. They can decide to build a hospital, which is a place where people go to feel better, or a school, which is a place where people go to learn. They are going to vote to decide!

If MOST of the people say they want to build a hospital, then the entire group will help build the hospital! See? Just like this!

But if MOST of the people say to build a school, then the entire group will help build the school. See? Just like this! Does that make sense?

See, when people vote, they have to make all sorts of decisions -- especially decisions that are important to the group! These decisions can be good for everyone, or they can even be bad for everyone.

Now that we know what voting is, I'm going to tell you my story. Are you ready?

Sequence 1

Welcome! Look, here are **FOUR** different groups. In our stories today, I'm going to tell you something about each group!

Here is our first group. These are the Grays and they live in Grayville. There are different types of people in this Grayville.

Look here! These people in Grayville **aren't smart**. They don't know very much about the town and don't know how to make good decisions. They are very **BAD** at making decisions!

Today, Grayville is going to get some water to drink. They're going to drink some water!

But, today, Grayville is going to only let some people drink water. Look! These Grays, they get to drink water.

And these Grays, who aren't smart and don't know much about the town, don't get to drink any water.

...

Now I'll get to tell you about a new group of people! These are the Blues and they live in Blueville. There are different types of people in this Blueville.

Look here! These people in Blueville **aren't smart**. They don't know very much about the town and don't know how to make good decisions. They are **very BAD** at making decisions!

Today, Blueville is going to make a decision about their town. They're going to vote to decide!

But, today, Blueville is going to only let some people vote to decide. Look! These Blues, they will get to vote to decide.

And these Blues, who aren't smart and don't know much about the town, don't get to vote to decide.

...

Now I'll get to tell you about a new group of people! These are the Peaches and they live in Peachville. There are different types of people in this Peachville.

Look here! These people in Peachville like to wear purple shoes. They like their purple shoes and wear them a lot.

Today, Peachville is going to get some water to drink. They're going to drink some water!

But, today, Peachville is going to only let some people drink water. Look! These Peaches, they will get to drink water.

And these Peaches, who like to wear purple shoes, don't get to drink any water.

...

Now I'll tell you about our final group of people! These are the Olives and they live in Oliveville. There are different types of people in this Oliveville.

Look here! These people in Oliveville like to wear purple shoes. They like their purple shoes and wear them a lot.

Today, Oliveville is going to make a decision about their town. They're going to vote to decide!

But, today, Oliveville is going to only let some people vote. Look! These Olives, they will get to vote to decide.

And these Olives, who like to wear purple shoes, don't get to vote to decide.

Forced Choice

Thanks for answering my questions about the FOUR groups! I'm going to tell you about two FINAL groups of people: These ones on the left are called Blues and they live in Blueville. These ones on the right are called Yellows and they live in Yellowville.

Look here! These people in Blueville aren't very smart, and these people in Yellowville aren't very smart. They don't know very much about the town and don't know how to make good decisions. They are **very BAD** at making decisions!

In Blueville, ALL the Blues vote to decide what to do. Look! These Blues get to vote to decide. And these Blues, who **aren't very smart and don't know much about the town**, also get to vote.

In contrast, NOT all the Yellows vote to decide what to do. Look! These Yellows get to vote to decide. But these Yellows, **who aren't very smart and don't know much about the town**, DON'T get to vote.

Study 1b: Morality

Intro

Hi there! Today I'm going to tell you a story about voting. Do you know what voting is?

Here is a group of people, and they need to decide what to do as a group. Voting is to let each person say what he or she wants to do, and the group can do what MOST people want to do! Let's see an example!

For example, let's say these people are deciding to build a new building in town. They can decide to build a hospital, which is a place where people go to feel better, or a school, which is a place where people go to learn. They are going to vote to decide!

If MOST of the people say they want to build a hospital, then the entire group will help build the hospital! See? Just like this!

But if MOST of the people say to build a school, then the entire group will help build the school. See? Just like this! Does that make sense?

See, when people vote, they have to make all sorts of decisions -- especially decisions that are important to the group! These decisions can be good for everyone, or they can even be bad for everyone.

Now that we know what voting is, I'm going to tell you my story. Are you ready?

Sequence 1

Welcome! Look, here are FOUR different groups. In our stories today, I'm going to tell you something about each group!

Here is our first group. These are the Grays and they live in Grayville. There are different types of people in this Grayville.

Look here! These people in Grayville **are NOT** nice. They are mean to other people in the town and they hurt others. They are bad people!

Today, Grayville is going to get some water to drink. They're going to drink some water!

But, today, Grayville is going to only let some people drink water. Look! These Grays, they get to drink water.

And these Grays, who are NOT nice and hurt others, don't get to drink any water.

...

Now I'll get to tell you about a new group of people! These are the Blues and they live in Blueville. There are different types of people in this Blueville.

Look here! These people in Blueville are **NOT nice**. They are mean to other people in the town and they hurt others. They are bad people!

Today, Blueville is going to make a decision about their town. They're going to vote to decide!

But, today, Blueville is going to only let some people vote to decide. Look! These Blues, they will get to vote to decide.

And these Blues, who are **NOT nice and hurt others**, don't get to vote to decide.

...

Now I'll get to tell you about a new group of people! These are the Peaches and they live in Peachville. There are different types of people in this Peachville.

Look here! These people in Peachville like to wear purple shoes. They like their purple shoes and wear them a lot.

Today, Peachville is going to get some water to drink. They're going to drink some water!

But, today, Peachville is going to only let some people drink water. Look! These Peaches, they will get to drink water.

And these Peaches, who like to wear purple shoes, don't get to drink any water.

...

Now I'll tell you about our final group of people! These are the Olives and they live in Oliveville. There are different types of people in this Oliveville.

Look here! These people in Oliveville like to wear purple shoes. They like their purple shoes and wear them a lot.

Today, Oliveville is going to make a decision about their town. They're going to vote to decide!

But, today, Oliveville is going to only let some people vote. Look! These Olives, they will get to vote to decide.

And these Olives, who like to wear purple shoes, don't get to vote to decide.

Forced Choice

Thanks for answering my questions about the FOUR groups! I'm going to tell you about two FINAL groups of people: These ones on the left are called Blues and they live in Blueville. These ones on the right are called Yellows and they live in Yellowville.

Look here! These people in Blueville are NOT nice, and these people in Yellowville are NOT nice. They are mean to other people in the town and they hurt others. They are bad people!

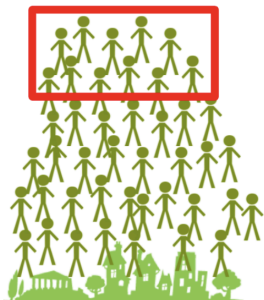
In Blueville, ALL the Blues vote to decide what to do. Look! These Blues get to vote to decide. And these Blues, who aren't nice and hurt others, also get to vote.

In contrast, NOT all the Yellows vote to decide what to do. Look! These Yellows get to vote to decide. But these Yellows, who aren't nice and hurt others, DON'T get to vote.

6) Sample testing stimuli in Study 3

Figure S. Testing stimuli for universal vs exclusionary voting trials in Study 3.

Sequence 1. Universal vs. Experts



In **Greentown**, the Greens decide by letting a **FEW Greens** (point) vote to decide what to do.

These Greens who get to decide are **experts** (point), which means that they **know a lot** about the town and know what is the **best decision** to make. **Other Greens** (point) **know less** about the town and do **not know the best decision** to make.

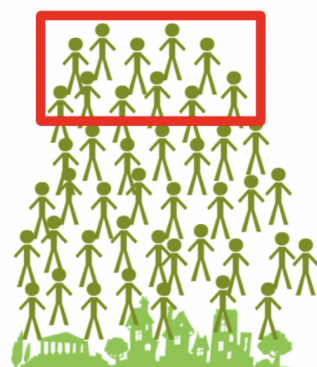
So, in Greentown, **only the few Greens** (point) who know what is best **get to vote**. Which means that this town **will do** whatever these **expert Greens think they should do**.



In **Orangeville**, the Oranges decide by letting **ALL Oranges** (point) vote to decide what to do.

Some Oranges are **experts**, which means that they **know a lot** about the town and know what is the **best decision** to make. **Other Oranges** **know less** about the town and do **not know the best decision** to make.

So, in Orangeville, **ALL Oranges** (point) **get to vote**. Which means that this town will do whatever **ALL the Oranges think they should do**.



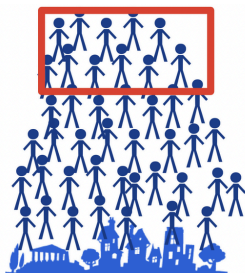
Now remember, in **Greentown**, **only the expert Greens** (point) get to vote and in **Orangeville**, **all the Oranges** (point) get to vote.



Now both of these towns decided how to grow the coconuts, but only one of these towns had a lot of coconuts on their tree because they made the smartest decisions. Remember, the Greens only let the experts decide and the Oranges lets everyone help decide.

Can you tell me which town made the right decisions and got a lot of coconuts? Was it Greentown? Or Orangeville?

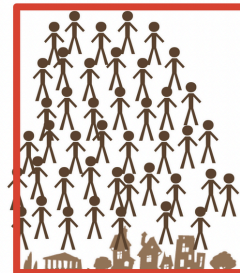
Sequence 2. Universal vs. Moral Experts



In **Bluetown**, the Blues decide by letting a **FEW Blues** (point) vote to decide what to do.

Some Blues are **really nice** (point), which means that they are **helpful to other people** in town and always try to be super helpful to others. **Other Blues** (point) can be nice, but are not as helpful to the others in town and don't do as many nice things.

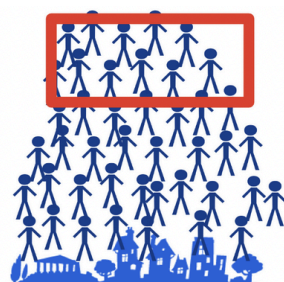
So, in Bluetown, **only the few Blues** (point) who are really nice **get to vote**. Which means that this town **will do** whatever these **really nice Blues think they should do**.



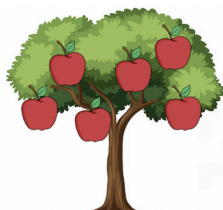
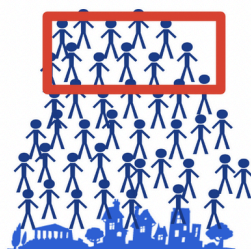
In **Brownville**, the Browns decide by letting **ALL Browns** (point) vote to decide what to do.

Some Browns are **really nice** (point), which means that they are **helpful to other people** in town and always try to be super helpful to others. **Other Browns** (point) can be nice, but are not as helpful to the others in town and don't do as many nice things.

So, in Brownville, **ALL Browns** (point) **get to vote**. Which means that this town will do whatever **ALL the Browns think they should do**.



Now remember, in **Bluetown**, **only the really nice Blues** (point) get to vote and in **Brownville**, **all the Browns** (point) get to vote.



Now after both of these towns decided how to grow the apples, only one of these towns had a lot of apples on their tree because they made the smartest decision. Remember, the Blues only let the Blues that are really nice decide and the Browns lets everyone help decide.

Can you tell me which town got a lot of apples? Was it Bluetown? Or Brownville?

Script:

Expert

These are two different groups of people.

These ones on the left are called Greens and they live in Greentown. These ones on the right are called Oranges and they live in Orangeville.

Both towns have to make all sorts of important decisions for their town, but they have different ways to decide what to do.

In Greentown, the Greens decide by letting a FEW Greens vote to decide what to do.

These Greens who get to decide are experts, which means that they know a lot about the town and know what is the best decision to make. Other Greens know less about the town and do not know the best decision to make.

So, in Greentown, only the few Greens who know what is best get to vote. Which means that this town will do whatever these expert Greens think they should do.

In Orangeville, the Oranges decide by letting ALL Oranges vote to decide what to do.

Some Oranges are experts, which means that they know a lot about the town and know what is the best decision to make. Other Oranges know less about the town and do not know the best decision to make.

So, in Orangeville, ALL Oranges get to vote. Which means that this town will do whatever ALL the Oranges think they should do.

Now remember, in Greentown, only the expert Greens get to vote and in Orangeville, all the Oranges get to vote.

...

One of the things these towns has to decide is how to take care of the coconut trees in town. If they make the right decisions and the coconut trees get a lot of sunlight and water, the town can get a lot of coconuts! If they don't make the right decisions, the coconut trees don't get enough sunlight and water, and the town can't get that many coconuts.

Now both of these towns decided how to grow the coconuts, but only one of these towns had a lot of coconuts on their tree because they made the smartest decisions. Remember, the Greens only let the experts decide and the Oranges lets everyone help decide.

Can you tell me which town made the right decisions and got a lot of coconuts? Was it Greentown? Or Orangeville?

Moral

These are two totally different groups of people.

These ones on the left are called Blues and they live in Bluetown. These ones on the right are called Browns and they live in Brownville.

Both towns have to make all sorts of important decisions for their town, but they have different ways to decide what to do.

In Bluetown, the Blues decide by letting a FEW Blues vote to decide what to do.

Some Blues are really nice , which means that they are helpful to other people in town and always try to be super helpful to others. Other Blues can be nice, but are not as helpful to the others in town and don't do as many nice things.

So, in Bluetown, only the few Blues who are really nice get to vote. Which means that this town will do whatever these really nice Blues think they should do.

In Brownville, the Browns decide by letting ALL Browns vote to decide what to do.

Some Browns are really nice , which means that they are helpful to other people in town and always try to be super helpful to others. Other Browns can be nice, but are not as helpful to the others in town and don't do as many nice things.

So, in Brownville, ALL Browns get to vote. Which means that this town will do whatever ALL the Browns think they should do.

Now remember, in Bluetown, only the really nice Blues get to vote and in Brownville, all the Browns get to vote.

...

One of the things these towns has to decide is how to take care of the apple trees in town. If they make the right decisions and the apple trees get a lot of sunlight and water, the town can get a lot of apples! If they don't make the right decisions, the apple trees don't get enough sunlight and water, and the town can't get that many apples.

Now after both of these towns decided how to grow the apples, only one of these towns had a lot of apples on their tree because they made the smartest decision. Remember, the Blues only let the Blues that are really nice decide and the Browns lets everyone help decide.

Can you tell me which town got a lot of apples? Was it Bluetown? Or Brownville?

7) Methods and Results for Study S1a and S1b:

Participants and Procedure

Study 1a Methods. We followed the same online-testing procedure and warm-up phase as in Study 1 (see main text). After the warm-up introduction, children in each study responded to one of two testing conditions. In **Study 1a**, participants were introduced to four different groups — Grayville, Blueville, Peachville, and Oliveville — shown in random order. As in

Studies 1 and 2, the towns and their modes of decision-making were represented by cartoon clip art images as the story proceeded. Each group of people was introduced as having a smaller faction of citizens who were either incompetent or immoral; these individuals were circled in gray (see sections 3 and 4). Two of the four towns excluded people for either incompetence (e.g., *“These people aren’t very smart. They don’t know very much about the town and don’t know how to make good decisions”*) and the other two towns excluded people for arbitrary reasons (e.g., *“They like to wear purple shoes”*). For each form of exclusion, one town excluded transgressors from voting (see study 2 for a more detailed explanation of this), and the other town excluded transgressors from accessing water, a life-giving resource. Our reasoning for this was to discern whether children conceptualized exclusion from voting as a punishment by comparing it to denying important resources. The citizens excluded from drinking water were explained with the following script:

“Today, Grayville is only going to let some people drink water. Look! These Grays, they get to drink water. And these Grays, who are NOT nice and hurt others, don’t get to drink water”

After hearing about each form of exclusion, children were then asked to rate the fairness of this exclusion on a 4-point Likert scale, with 1 representing “Really Unfair”; 2 representing “A Little Unfair”; 3 representing “A Little Fair”; and 4 representing “Really Fair”.

After hearing about the three towns, participants were shown one forced choice trial. In each condition, a town with a universal vote was compared to a town who excluded people from voting for incompetence reasons (see figure S5). Participants were told that the town with the universal vote also contained incompetent or immoral individuals. As such, the only difference between the universal vote and the exclusive vote was *who was permitted* to vote. After hearing

each story, children were asked to indicate 1) which way of voting was more fair, 2) which town they would rather live in and 3) which way of deciding works faster. They were given the option to respond either the universal vote (coded as 1), the exclusionary vote (coded as 0), or neither (coded as 0.5, excluded from analyses). This study was not pre-registered.

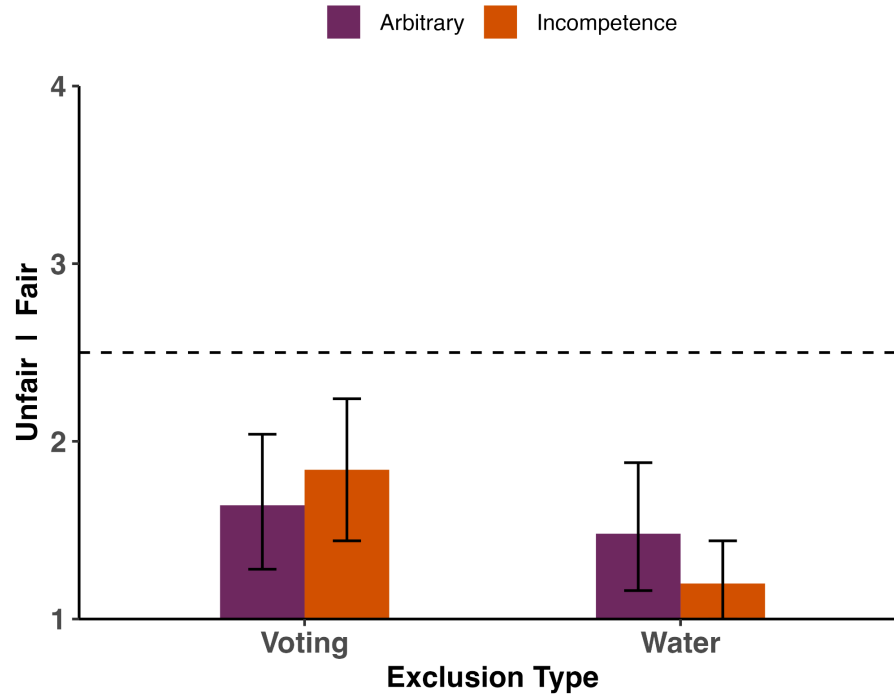
Study 1a Participants

We recruited 41 4- to 9-year-old children ($M_{\text{age}} = 7.21$ years, $SD = 1.47$ years, male = 26, female = 15). Study 1a Participants were recruited through a database of families in a Midwestern city in the United States. Among these participants, 51% were White, 2% were Black, 17% were Hispanic, 25% were Asian, and 5% were of another identity.

Study 1a Results

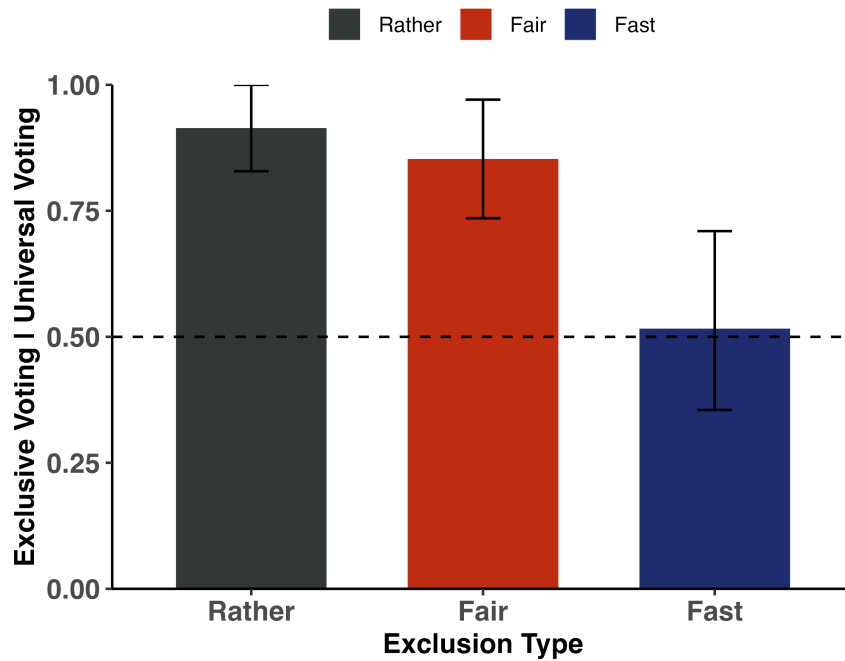
Fairness evaluations. We conducted a linear mixed effects model using type of exclusion (excluding from water or voting), exclusion reason (excluding because of incompetence or arbitrary reason), and their interaction to predict children's selections, with participant ID included as a random effect. According to the “drop 1” function in R, the interaction between type of exclusion and exclusion type marginally improved the model fit, $\chi^2(1, N = 72) = 3.09, p = .08$. We found a main effect of type of exclusion, such that children were significantly more likely to think that excluding from voting ($M = 1.74, SD = 1.03$) was more fair than excluding from water ($M = 1.34, SD = .80$), $B = -.40, SE = .14, t = -2.89, p = .005$, 95% CI [-.67, -.12], although fairness ratings for both type of exclusions were below the midpoint. We found no main effect of exclusion reason, $p = .773$, Figure S6. We added age in years to the model to explore if it would moderate the effects of exclusion type and reason. We did not find age significantly interact with exclusion type ($p = .58$) or exclusion reason ($p = .25$).

Figure S6. Children’s Fairness Ratings for Study S1a by Exclusion Type and Exclusion Reason.



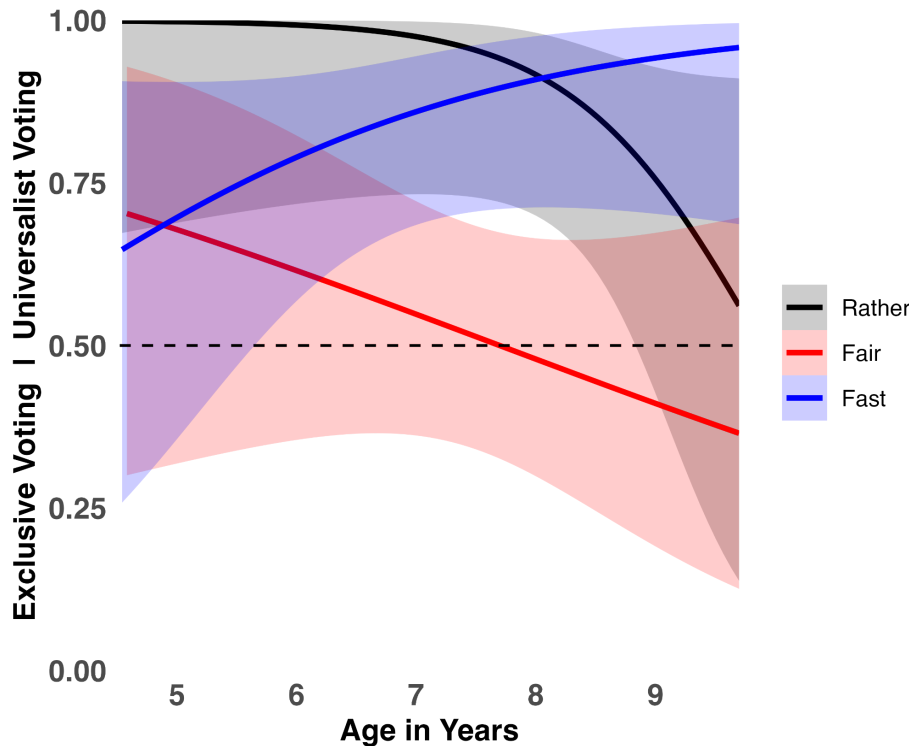
Forced choice response. We conducted a logistic regression using measure question (Fair, Rather, Faster) to predict children’s selections between a Universalist system where everyone votes (including the incompetent) versus an Exclusive system (where the incompetent are excluded from voting), with participant ID included as a random effect. The variable “measure” significantly contributed to model fit, $\chi^2(2, N=x) = 16.04, p < .001$. Model comparisons indicated that children’s judgment of which voting system is faster significantly differs from their judgment of which voting system is more fair, ($B = 1.69, SE = 0.60, Z = 2.81, p = .005$) and is significantly different from which they’d rather live in ($B = 2.30, SE = 3.27, Z = -4.98, p = .001$). Children’s selections of which was more fair did not significantly differ from which they’d rather live in, $p = .711$, Figure S7.

Figure S7. Children’s Forced Choice Responses for Study S1a by measure.



To examine children’s responses across ages and measures, we conducted a logistic regression, using measure, age in years, and their interaction to predict children’s responses, with participant ID included as a random intercept. According to the “drop 1” function in R, the interaction significantly improved model fit (likelihood ratio test comparing the full model to a model without the interaction), $\chi^2(2, N = x) = 7.52, p = .023$. To further understand the interaction, we conducted a separate logistic regression using age to predict each question. With age, children were more likely to think exclusive voting was faster ($B = -0.06, t = -2.03, p = .05$, 95% CI [-.13, .01]). Age did not have a significant effect on children’s ratings for rather ($p = .142$) or faster ($p = .321$), *Figure S8*.

Figure S8. Children's Forced-Choice Responses for Study S1a by Age and Measure.



Next, we analyzed younger (4- to 6-year olds) and older children's (7- to 9-year olds) responses separately and conducted binomial tests comparing responses to each question at chance level. Conceptually replicating our findings in Study 2, we found that young children were more likely to think the universal voting was marginally more fair ($M = 0.79, p = .057$), and was significantly the town that they would rather live in ($M = 0.91, p < .001$), but were at chance in their evaluations of which system was faster ($M = 0.56, p = .50$). Older children viewed the universal voting system was significantly more fair ($M = 0.90, p < .001$), and was the town that they would rather live in ($M = 0.85, p = .002$) significantly above chance level, whereas they were at chance in their selections when it came to which system was faster ($M = 0.50, p = .5$).

Study 1b Methods. Study 1b used the same procedure as Study 1a, with the difference being that the exclusionary variable of interest was exclusion based on moral transgression

instead of incompetence (e.g., “*These people are not nice. They are mean to other people in the town and they hurt others*”). This was also true for the forced choice trial in Study 1b.

Study 1b Participants

We recruited 41 4- to 9-year-old children ($M_{\text{age}} = 7.02$ years, $SD = 1.40$ years, male = 41, female = 20). Study 1b Participants were recruited through a database of families in a Midwestern city in the United States. Among these participants, 39% were White, 1% were Black, 2% were Hispanic, 29% were Asian, and 20% were of another identity.

Study 1b Results

Fairness evaluations. We first conducted a linear mixed effects model using type of exclusion (excluding from water or voting), exclusion reason (excluding because of immorality or arbitrary reasons), and their interaction to predict children’s fairness ratings, with participant ID included as a random effect. According to the “drop 1” function in R, the interaction between type of exclusion and exclusion type did not improve model fit, $p = .605$. However, we found a significant main effect of exclusion reason, such that children were significantly more likely to think that excluding based off of moral badness ($M = 2.52$, $SD = 1.20$) was more fair than excluding based off of arbitrary ($M = 1.68$, $SD = 1.15$), $B = .84$, $SE = .15$, $t = 5.48$, $p < .001$, 95% CI [.54, 1.14]. We also saw a main effect of exclusion type, such that children were significantly more likely to think that excluding from voting ($M = 2.26$, $SD = 1.27$) was more fair than excluding from giving them water ($M = 1.94$, $SD = 1.20$), $B = -.32$, $SE = .15$, $t = -2.09$, $p = .041$, 95% CI [-0.69, -0.02]. We added age in years into the model but did not find it interacted with exclusion type ($p = .94$) or exclusion reason ($p = .09$), Figure S9.

Figure S9. Children’s Fairness Ratings for Study S1b by Exclusion Type and Exclusion Reason.

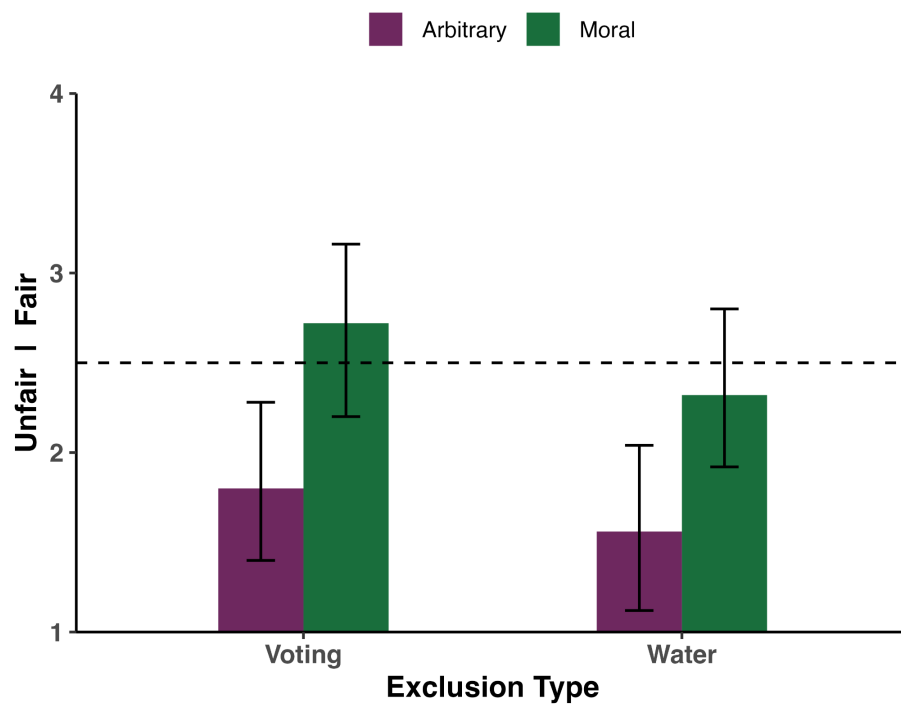
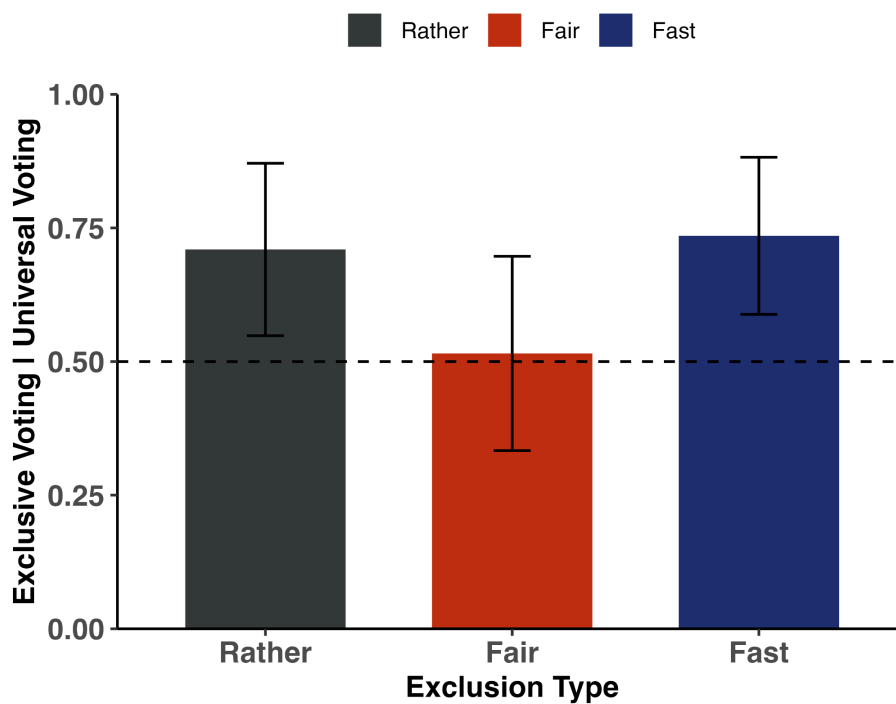


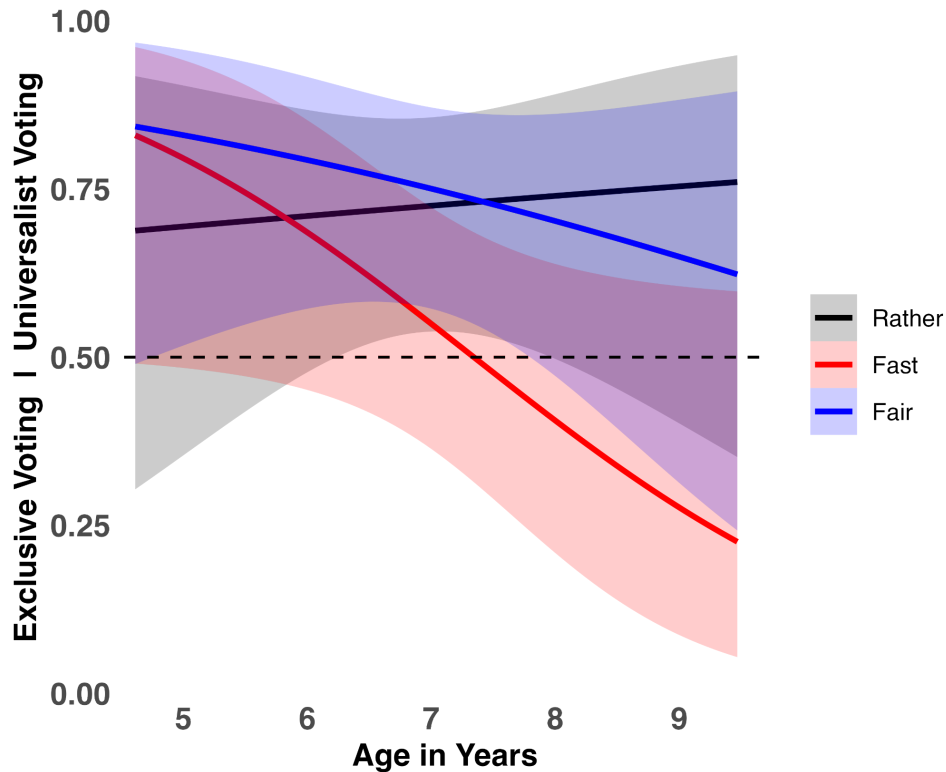
Figure S10. Children's Forced Choice Responses for Study S1b by Measure.



Forced choice response. We conducted a logistic regression using question (Fair, Faster, Rather) to predict children's selections between a Universalist system where everyone votes (including the immoral) versus an Exclusive system (where the immoral are excluded from voting), with participant ID included as a random effect. The variable "question" significantly contributed to model fit, $\chi^2(2, N = x) = 6.69, p < .036$. Model comparisons indicated that children's judgment of which voting system is faster differs from their judgment of which voting system is more fair, ($B = 1.77, SE = .80, Z = 2.21, p = .027$), and is not significantly different from which they would rather live in ($B = .13, SE = .74, Z = 1.74, p = .09$). There was no significant difference between children's selections between rather and faster ($p = .537$), Figure S10.

To examine children's responses across ages and measures, we conducted a logistic regression, using measure, age in years, and their interaction to predict children's responses, with participant ID included as a random intercept. According to the "drop 1" function in R, the interaction marginally improved model fit (likelihood ratio test comparing the full model to a model without the interaction), $\chi^2(2, N = x) = 5.51, p = .064$. We then used age to predict children's responses to each measure. We found a marginal effect of age for children's ratings for the fast question ($B = -0.11, SE = 0.06, t = -1.99, p = .055, 95\% \text{ CI } [-0.22, -0.002]$), Figure S11. Age did not have a significant effect on children's ratings for fair ($p = .94$) or rather ($p = .42$).

Figure S11. Children's Forced-Choice Responses for Study S1b by Age and Measure.



Next, we analyzed younger (4- to 6-year olds) and older children's (7- to 9-year olds) responses separately and conducted binomial tests comparing responses to each question at chance level. We found that young children were more likely to think the universal voting was significantly more fair ($M = 0.76, p = .026$), but were at chance in their evaluations of which system they'd rather live in ($M = 0.66, p = .24$) and which system was faster ($M = 0.65, p = .26$). In contrast, older children viewed the universal voting system was marginally more the system they'd rather live in ($M = 0.78, p = .057$). They were at chance in their evaluations of which system was faster ($M = 0.35, p = .42$) and more fair ($M = 0.71, p = .18$).

8) Supplemental Count Tables

Study 1: Adults

	Universal	Neither	Exclusionary
Better	85	10	15
Fair	102	4	4
Faster	17	20	73
Rather	90	5	15

Study 1: Older Children

	Universal	Neither	Exclusionary
Better	34	2	19
Fair	43	6	6
Faster	13	3	39
Rather	31	12	12

Study 1: Younger Children

	Universal	Neither	Exclusionary
Better	36	6	10
Fair	29	12	11
Faster	22	5	25
Rather	33	6	13

New Study: Adults

	Universal	Exclusionary
Expert Better	72	32
Expert Fair	82	22
Expert Faster	24	80
Expert Rather	76	28
Expert Outcome	30	74
Moral Better	84	20
Moral Fair	85	19
Moral Faster	27	77
Moral Rather	78	26
Moral Outcome	60	43

New Study: Older Children

	Universal	Exclusionary
Expert Better	31	26
Expert Fair	51	6
Expert Faster	11	46
Expert Rather	30	27
Expert Outcome	19	38
Moral Better	30	27
Moral Fair	47	10
Moral Faster	13	44
Moral Rather	27	30
Moral Outcome	25	32

New Study: Younger Children

	Universal	Exclusionary
Expert Better	28	16
Expert Fair	35	9
Expert Faster	20	24
Expert Rather	33	11
Expert Outcome	28	16
Moral Better	26	18
Moral Fair	28	16
Moral Faster	22	22
Moral Rather	17	27
Moral Outcome	31	13

Previous Study 2: Adults

	Universal	Neither	Exclusionary
Fair Arbitrary	95	16	11
Fair Competence	90	19	13
Fair Moral	83	19	20
Faster Arbitrary	32	61	29
Faster Competence	26	57	39
Faster Moral	30	59	33

Previous Study 2: Older Children

	Universal	Neither	Exclusionary
Fair Arbitrary	52	7	4
Fair Competence	47	6	10
Fair Moral	27	11	25
Faster Arbitrary	20	12	31
Faster Competence	14	12	37
Faster Moral	10	13	40

Previous Study 2: Younger Children

	Universal	Neither	Exclusionary
Fair Arbitrary	38	12	13
Fair Competence	45	14	4
Fair Moral	29	14	20
Faster Arbitrary	34	12	17
Faster Competence	31	13	19
Faster Moral	27	13	23