Measuring Social Norms

Cristina Bicchieri

University of Pennsylvania

PENN SONG

PENN SOCIAL NORMS GROUP

Running Agenda

- **What is the theory of social norms?**
- What are social norms?
- How do we measure whether there is a social norm?
- How do we measure sustainability?

Explaining norms

(Bicchieri-Muldoon, 2011)

- Macro view

- Functions
- Evolution
- Emergence

- Micro view

- Reasons to conform
  - Cost-benefit
  - Emotions
  - Expectations

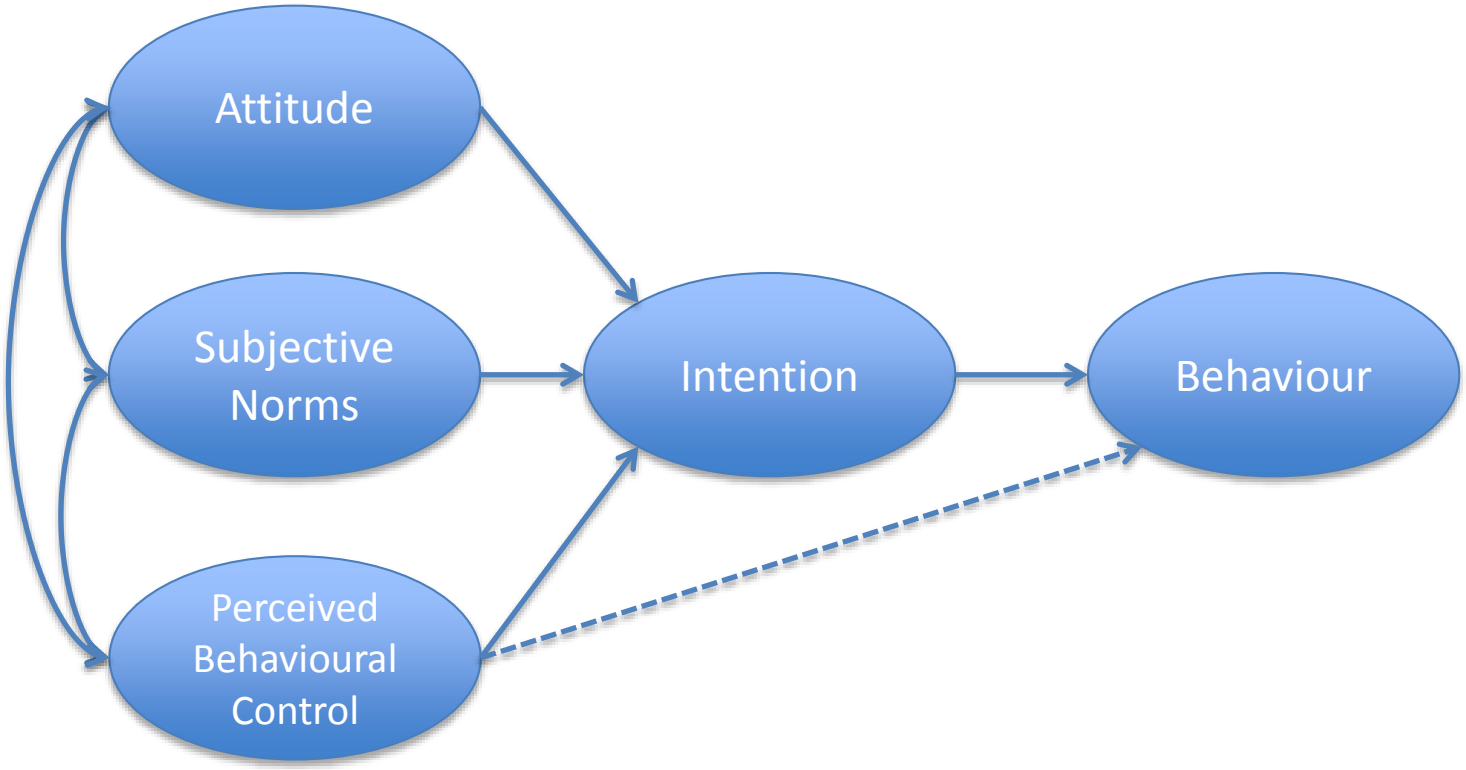
The content and behavioral effects of social norms remain a black box

Opening the Black Box

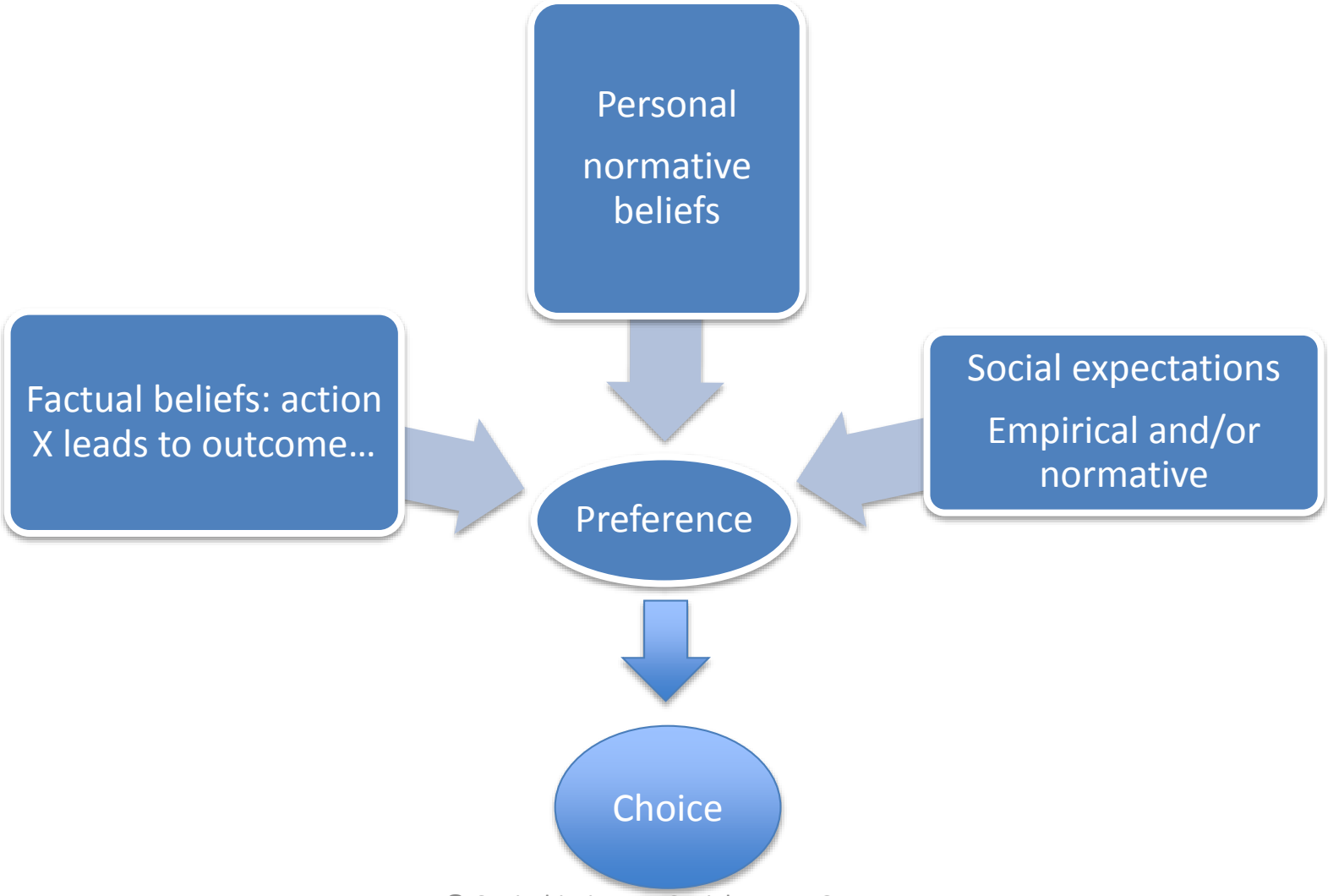
- Intervention goal needs micro-analysis
  - For *successful interventions* to curb harmful behaviors, we must figure out people's reasons for doing what they do
- To develop diagnostic tools
  - Must be guided by specific models of behavior
- Effective tools → good measures

Guidance: Theory of Planned Behavior

(Ajzen 1991)



Guidance: Modified Belief/Preference Model (Bicchieri 2006)



The Theory of Social Norms

- The theory of social norms is a theory of what motivates collective patterns of behavior.
- It tries to answer a very basic question
  - Why do people do what they do?
- We use very simple, measurable concepts to answer that question.

Our simple (measurable) concepts

(Bicchieri 2006, 2016)

- Preference (conditional)
- Personal Normative Belief
- Social Expectations
- Reference Network

So Why Do People Do What They Do?

- People do what they do because they **prefer** to act that way.
- Preference = a disposition to choose in a specific way, all things considered
  - Choices **reveal** preferences; If I choose A over B (for *whatever* reason), then I prefer A over B
  - Preferences =/= likings

Two Kinds of Preference

Unconditional: I have the preference **regardless** of what I expect others do or what I expect others think I should do.

– **Unconditional Preference → Independent Choice**

Conditional: My preference **depends** on what I expect others do or what I expect others think I should do.

– **Conditional Preference → Interdependent Choice**

So Why Do People Prefer to Do What They Do?

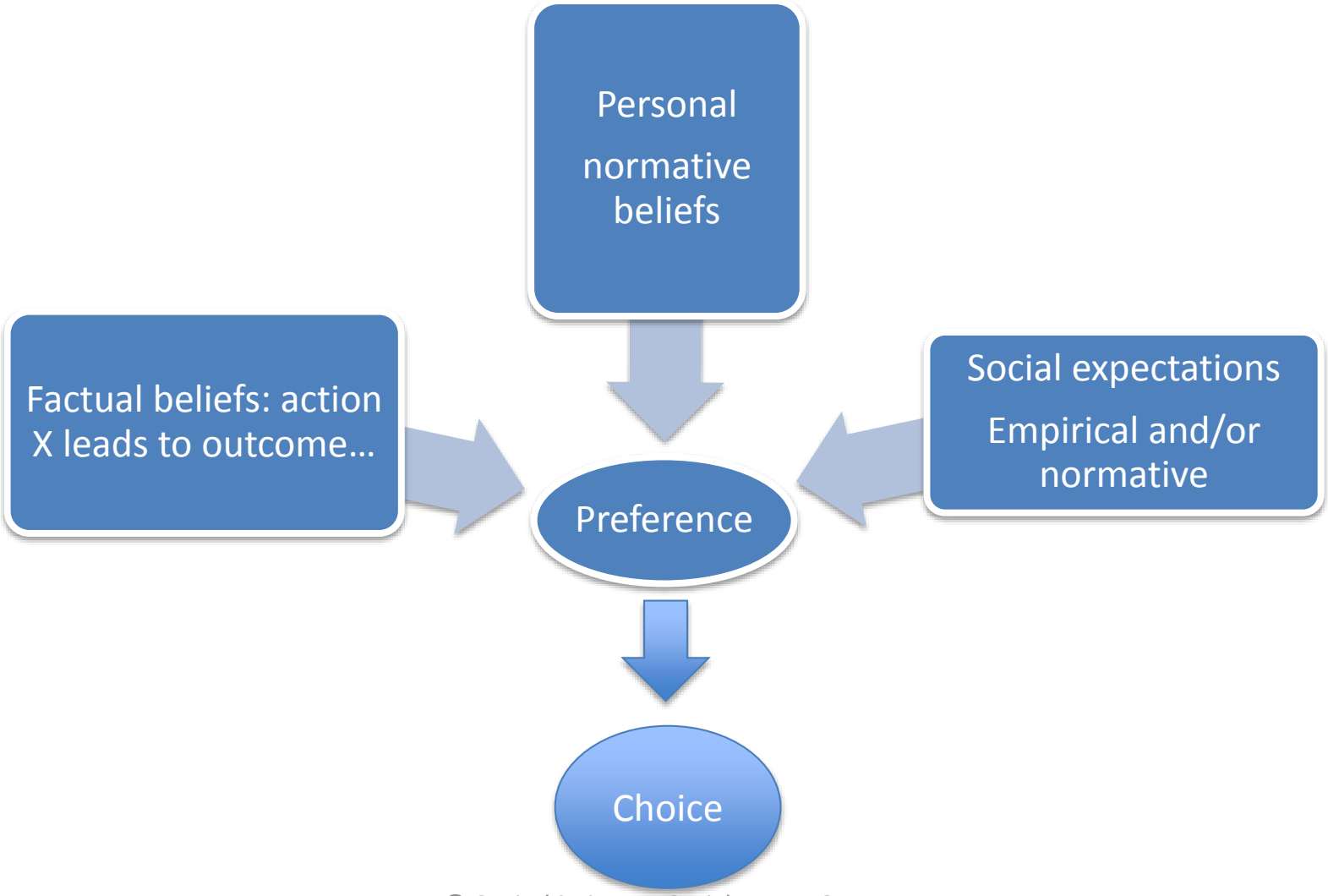
Possible answers:

- (1) because they believe it meets a need
- (2) because they believe it is the right thing to do
- **(3) because they believe other people are doing it**
- **(4) because they believe others think they should do it**

- (1) and (2) are unconditional preferences
- (3) and (4) are conditional preferences

Modified Belief/Preference Model

(Bicchieri 2006)



Personal Normative Belief

- **Personal normative beliefs** are beliefs about *what should happen*.
  - I believe: "*Men should (or should not) control use of a phone in a household*."
  - I believe: "*Women should (or should not) report intimate partner violence to police*."
  - I believe: "*Sexually active people should (or should not) use condoms*."

Two Kinds of Social Expectations

- **Empirical expectations** are beliefs about what we expect others to do.
  - I expect: "*Most women will not maintain a bank account*."
  - I expect: "*Most girls will marry before the age of 15*."
- **Normative expectations** are beliefs about what others think we *should* do.
  - I expect: "*Men to believe that men should make decisions about food consumption, production and sale in the household*."
  - I expect: "*Villagers to believe that women and children should fetch the water from the local source*."

Reference Networks

- If I have a conditional preference to engage in some collective pattern of behavior, then my behavior depends on my social expectations.

- But these expectations are about people whose behaviors and beliefs matter for my behavior. They are my reference network.

A social norm (Bicchieri 2006)

is a → rule of behavior

such that → individuals prefer to conform to it

on condition that they believe that

- most people in their reference network conform to it [empirical expectations]
- most people in their reference network believe they ought to conform to it [normative expectations]

How can we measure these social expectations and preferences?

Social psychology common definitions

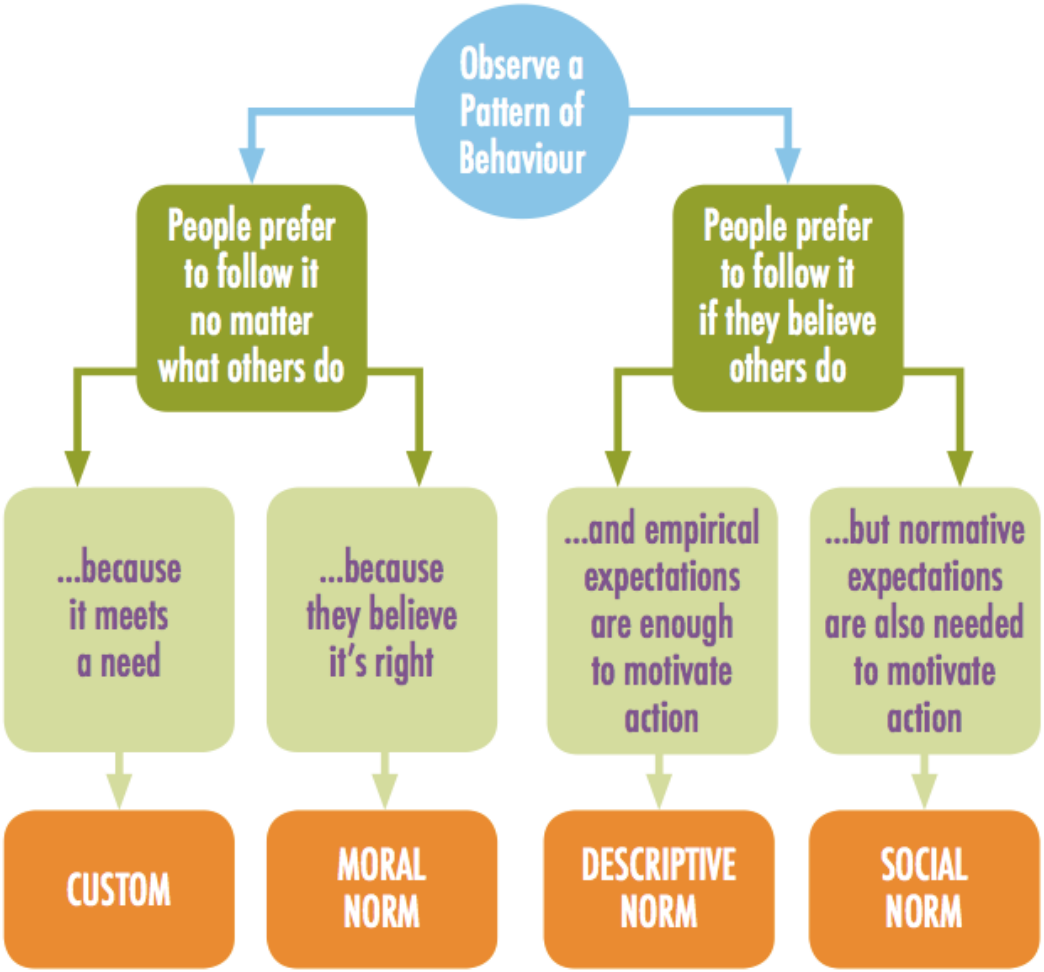
(Cialdini, Kallgren and Reno, 1990)

- Descriptive Norm: What people in a group normally do, typical behavior
  - Using umbrellas when it rains
  - Driving on the right side of the road
- Injunctive Norm: What people in a group deem to be appropriate behavior
  - Shared moral code ('do not harm innocents')
  - Good manners

Are these effective tools for interventions?

- Descriptive/injunctive does not distinguish between independent and interdependent behavior. Too inclusive.
- If goal is behavioral change → we need to be more specific (*nudges* vs. *group interventions*)
- Behavioral influence of social expectations → interdependence

Diagnosis



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- **How do we measure whether there is a social norm?**
- How do we measure sustainability?

Recap: What we need to know to diagnose a social norm

1. **Empirical expectations:** I believe enough other people are conforming to the behavioral rule
2. **Normative expectations:** I believe enough other people think I *should* conform to the rule/others will punish me if I don't conform
3. **Conditionality**: I prefer to conform to the rule dependent on my empirical and normative expectations

All three *have* to be present for the existence of a social norm that people follow

Measurement is about *operationalizing* these concepts

Measuring empirical expectations

Two steps:

1. Measure behavior
2. Measure people's belief about behavior you measured in step 1

Step 1: Measure behavior

- Two options:
  - Measure actual behavior with monitors
    - Pros: Not subject to self-report biases
    - Cons: can be incredibly difficult if not impossible and may influence behavior
  - Ask people about their behavior
    - Example: *Where do you defecate?/ Where do your household members defecate?*
    - Pros: Relatively inexpensive
    - Cons: People may not be forthcoming for a variety of reasons (embarrassment, self image, coercion)

Methods for eliciting accurate reports of personal behavior

- Incentivize accuracy with spot checks
  - Even if general monitoring is prohibitive, random spot checks may work with some behavior

- Reduce demand effects by hiding the true response from the experimenter
  - Method: Tell participant to secretly pick a number between 1 and 6 and to roll a die. If they roll the number they secretly picked, they say they engage in the target behavior, if they roll any other number, they are to tell the truth
  - This method makes the response completely private because the experimenter can't know why you said you engaged in the target behavior, but they can infer the community wide statistic

Step 2: Measure empirical expectations

- Ask the participant about their *belief* about the collective behavior just measured
  - Simple version: Do most other people engage in the behavior?
  - Intermediate version: Do more or fewer than 70% of people engage in the behavior?
  - Complex version: What proportion of people engage in the behavior?
- Fix the question to the relevant reference network

Step 2: Accurate EEs

- Because you measured behavior first, you can incentivize answers.
  - Ex: If you correctly guess whether most others engage in the behavior, you get reward R.
- Why incentives?
  - **We do not care if they guess correctly. We care that we accurately measure their empirical expectations.**
  - People may have hazy ideas about others' behaviors.
  - Incentivize to get people to focus on whether they think people engage in the behavior.

Measuring normative expectations

Two steps:

1. Measure personal normative beliefs
2. Measure people's beliefs about what you measured in step 1

Step 1: Measuring personal normative beliefs

- Personal normative belief is what you think people *should* or *ought* to do

- Personal normative belief questions suffer from the same accuracy problems as behavior questions

Method for eliciting accurate personal normative beliefs

- We cannot incentivize, as there is no way to directly monitor people's normative beliefs
- We *can* apply the same anonymity techniques we used for behavior (using a random device so interviewer cannot infer the truth)

Constructing a scale with multiple questions

- Most questions could be asked in a variety of different ways
- Example:
  - *Do you agree with the following statement: Do you believe that people should use the toilet because it is the right thing to do?*
  - *Do you agree with the following statement: Do you think it is wrong to not use the toilet?*
- By taking the average response across a variety of questions, we reduce noise from both the question chosen and participant response

Using Likert scales

- In order to get more detailed data, you can use a Likert scale rather than a simple Yes/No. This allows you to see more nuanced heterogeneity in the data
- Likert Example:
  - To what degree to you agree with the following statement: *It is wrong to engage in open defecation*:
    (1) Strongly Disagree (2) Disagree (3) Neither agree nor disagree (4) Agree (5) Strongly Agree

Step 2: Measuring normative expectations

- Similar to measuring empirical expectations, we can now survey people about other's personal normative beliefs
  - Example: *Do you think most other people said that you should use a toilet*?
- We have the same levels of complexity as in the empirical expectations
- Incentivize: If you correctly guess whether most other people agreed or strongly agreed with the statement "*it is wrong to engage in open defecation*", you will get a reward
- Measure belief in sanctions: "*What do you think would happen in your community if it was discovered that someone was engaging in open defecation*?"

Looking for consistency

- Mutually consistent normative expectations signal the **probable** existence of a norm (Bicchieri and Chavez, 2010)
  - Example: If a large majority of the community think that the other members of the community believe that it is wrong to engage in open defecation, then there is probably a norm
  - However, it could be a shared moral or prudent rule
- We still need to measure whether behavior *depends* on these expectations to know if a norm exists

Do expectations matter to choice?Conditionality and hypotheticals

- Conditionality means that the members of the community prefer to engage in the behavior depending on whether they have the proper social expectations
- This means that social expectations have causal power: if expectations were to change, behavior would change as well
- This requires hypotheticals, where the member of the community imagines a world where they did/did not have the proper expectations. We then measure behavior in that hypothetical situation

Measuring conditionality

Options:

1. Directly ask about hypotheticals
   - Pros: Simple and direct
   - Cons: Can be hard for respondents, particularly with little education, to answer
2. Use vignettes
   - Easier to understand; creates enough distance for people to answer
   - Cons: Harder to design properly and longer to administer

Direct

	Low Normative Expectations	High Normative expectations:
Low Empirical Expectations	Imagine that **90%** of your community engaged in open defecation, and **10%** of your community said it was wrong to engage in open defecation. If that were true, would you engage in open defecation?	Imagine that **90%** of your community engaged in open defecation, and **90%** of your community said it was wrong to engage in open defecation. If that were true, would you engage in open defecation?
High Empirical Expectations	Imagine that **10%** of your community engaged in open defecation, and **10%** of your community said it was wrong to engage in open defecation. If that were true, would you engage in open defecation?	Imagine that **10%** of your community engaged in open defecation, and **90%** of your community said it was wrong to engage in open defecation. If that were true, would you engage in open defecation?

Use reference networks

	Trust Network	Respect network
Low Empirical Expectations	Imagine that 90% of [the people listed in their trust network] engaged in open defecation, and 90% of them said it was wrong to engage in open defecation. If that were true, would you engage in open defecation?	Imagine that 90% of [the people listed in their respect network] engaged in open defecation, and 90% of them said it was wrong to engage in open defecation. If that were true, would you engage in open defecation?
High Empirical Expectations	Imagine that 10% of [the people listed in their trust network] engaged in open defecation, and 90% of them said it was wrong to engage in open defecation. If that were true, would you engage in open defecation?	Imagine that 10% of [the people listed in their respect network] engaged in open defecation, and 90% them said it was wrong to engage in open defecation. If that were true, would you engage in open defecation?

Vignettes

	Low Normative Expectations	High Normative expectations:
Low Empirical Expectation	90% of people in Mr. Afridi's community used to engage in open defecation, including Mr. Afridi himself. At the current time, **90%** of people in his community engage in open defecation, and **10%** of people think it is wrong to do so. How likely do you think it is that Mr. Afridi will continue to engage in open defecation?	90% of people in Mr. Afridi's community used to engage in open defecation, including Mr. Afridi himself. At the current time, **90%** of people in his community engage in open defecation, and **90%** of people think it is wrong to do so. How likely do you think it is that Mr. Afridi will continue to engage in open defecation?
High Empirical Expectation	90% of people in Mr. Afridi's community used to engage in open defecation, including Mr. Afridi himself. At the current time, **10%** of people in his community engage in open defecation, and **10%** of people think it is wrong to do so. How likely do you think it is that Mr. Afridi will continue to engage in open defecation?	90% of people in Mr. Afridi's community used to engage in open defecation, including Mr. Afridi himself. At the current time, **10%** of people in his community engage in open defecation, and **90%** of people think it is wrong to do so. How likely do you think it is that Mr. Afridi will continue to engage in open defecation?

Note on conflicting expectations

- Usually, empirical and normative expectations are consistent (high/high or low/low)
- However, what if you found that people in a community believe that others think they *should* use a toilet, but also believe that others in the community are engaging in open defecation
- When in conflict, **empirical expectations dominate normative expectations** (Bicchieri and Xiao, 2009)
  - Conflicting expectations undermine our normative expectations
  - People are rarely punished if everyone else is also engaging in the same behavior

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- **How do we measure sustainability?**

Assessing sustainability

- High levels of expectation
  - Empirical expectations are high
  - Normative expectations are high
- Expectations consistent with behavior and beliefs
  - Behavior is consistent with empirical expectations
  - Personal normative beliefs are consistent with normative expectations

Measurement Summary

Here we learned how to measure:

1. Empirical expectations
2. Normative expectations
3. Conditionality on those expectations

A norm exists and will be followed only if a large enough portion of the population (1) hold the correct empirical expectations (2) hold the necessary normative expectations, and (3) have the necessary conditional dependencies

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