



“You” and “I” in a foreign land: The persuasive force of generic-you[☆]

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ABSTRACT

Norms help people navigate their social lives, dictating what behaviors are typical, expected, or valued in a given context. Here we suggest that a subtle linguistic cue—the generic usage of the word “you” (i.e., “you” that refers to people in general rather than to one or more specific individuals) carries persuasive force, influencing how people discern unfamiliar norms. Across five experiments ($N = 800$), people endorsed unfamiliar behaviors described with generic-you (e.g., “You share them with your friends”) as more normatively correct than behaviors expressed with ‘I’ (e.g., “I share them with my family”) or third-person singular pronouns (“he” or “she”; e.g., “She shares them with her family”). These effects persisted even when participants were told that their informants were highly knowledgeable about the norms. Together, these findings indicate that generic-you functions as a linguistic nudge that carries persuasive force. Broadly, they add to a growing body of literature on how subtle linguistic shifts can meaningfully influence social cognition.

1. Introduction

Imagine that you just set foot in a foreign country. You ask a group of locals, “Where do you sit in a taxi around here?” One person says, “**You** sit in the front seat, next to the driver.”¹ Another says, “I sit in the back seat, behind the driver.” Whose response do you have more confidence in?

It may seem far-fetched to expect that such a subtle linguistic shift—using “you” versus “I”—could influence something as important as the reliance on a person's advice. Yet in this paper, we propose that such linguistic cues robustly affect people's interpretation of new information, informing what behaviors they believe are appropriate in a given context. Specifically, we suggest that using the word “you” to refer to people in general (i.e., hereinafter referred to as “generic-you”) leads people to consider novel information as more normatively correct.

Norms are the ‘glue’ that binds societies together (Bicchieri, 2005). They provide people with information regarding what behaviors are expected, typical, or approved of in a given situation (Cialdini, Kallgren, & Reno, 1991; Rakoczy & Schmidt, 2013; Sripada & Stich, 2006). People learn about norms in a variety of ways—through broad socio-cultural influences (e.g., institutions, family exchanges, rituals), nonverbal cues, observation of behaviors, and explicit instructions (Cialdini & Trost, 1998; Tankard & Paluck, 2016). In situations that are

ambiguous, the actions of others are particularly important for signaling what is normative (Asch, 1951; Goldstein & Cialdini, 2007; Smith, Hogg, Martin, & Terry, 2007). For example, in Sherif's now classic experiment, individuals altered their initial judgments of how far a pinpoint of light shifted in a dark room to conform to the judgment of the group, leading Sherif to conclude that in situations of uncertainty, “the group must be right” (p. 111).

In the absence of a physical group, language can serve as an important signal of what is normatively correct. This linguistic information can be expressed directly, for example, “In this classroom, students should hang their coats up neatly.” Here we suggest that it may additionally be expressed indirectly, using a pervasive but understudied linguistic device called “generic-you”—i.e., using ‘you’ to mean ‘one’ or ‘people in general’ (e.g., “What doesn't kill you makes you stronger”; Berry, 2009; Bolinger, 1979; Huang, Srioutai, & Greaux, 2018; Kamio, 2001; Kitagawa & Lehrer, 1990; Laberge & Sankoff, 1979). Specifically, we propose that generic-you may function as a *linguistic nudge*—a subtle alteration in the way information is presented in language that leads to a predictable change in people's behavior, without preventing them from making a different choice (Thaler & Sunstein, 2009).

Existing research supports the notion that generic-you is tightly linked to norms in *language production*. Both children and adults selectively use generic-you to express norms about self-relevant

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¹ Crucially, in this context, “you” is interpreted as generic; it does not refer specifically to the individual who asked the question. Here, the generic interpretation is signaled by the use of “you” in direct response to a question that also contains “you” (see Orvell et al., 2017, for discussion).

emotional (e.g., “When you’re a parent, you put your kids first”) and non-emotional experiences (e.g., “You carry an umbrella in the rain”) (Orvell, Kross, & Gelman, 2017, 2018). Although psychologists and philosophers have speculated that generics (which express information about abstract categories rather than specific individuals; e.g., “Boys don’t cry”) may play a role in the transmission and interpretation of norms, no work to our knowledge has directly tested this hypothesis (Gelman & Roberts, 2017; Knobe, Prasada, & Newman, 2013; Prasada & Dillingham, 2006, 2009; Wodak, Leslie, & Rhodes, 2015; Rhodes et al., 2012). Thus, it is unknown whether adults use generic-you to inform their interpretation of norms. The current research sought to address this question.

1.1. Research overview

Five studies examined whether individuals endorse unfamiliar behaviors as more normatively correct when they are expressed with generic-you (vs. ‘I’). In all of the experiments, participants were told to imagine that they were visiting a foreign land. They were then presented with a series of unfamiliar behaviors, described with either generic-you or ‘I’, and were asked to endorse how normatively correct a given behavior was. Thus, we tested whether generic-you led participants to make inferences about prescriptive norms—i.e., the *right* way for things to be done, as opposed to descriptive norms—i.e., what is done. In this way, we aimed to provide a conservative test of whether generic-you nudges people to make inferences about how normatively correct a given behavior is. Experiments 3 and 4 examined boundary conditions by testing whether the degree of knowledge that informants possessed would counteract the effect of generic-you. Experiments 5a–5b calibrated the persuasive force of generic you by comparing it to “he” or “she,” which may be less individuating than “I.” Across all the experiments, we prioritized robustness by using well-powered, within-subjects designs, and iteratively replicating the results.

We report all measures, manipulations, and exclusions for these experiments; data files and code are available at <http://doi.org/10.3886/E109001V5>.²

2. Experiment 1

Experiment 1 examined whether people make use of generic-you, which implies that a given action is general, to inform their interpretation of what is normative. Toward this end, we created a context in which participants would be motivated to identify whether the described action was normative or not. Specifically, participants were told to imagine that they were visiting a foreign land with objects that they had never seen before, and that they would have an opportunity to talk to inhabitants of the land to figure out how to use them the right way. Importantly, participants were told that some of the inhabitants were from the foreign land and knew how to use the objects, whereas others were new to the land, and did not know how to use the objects. After being presented with a response that contained generic-you and one that contained “I,” participants were asked to select how they should use the object. We predicted that participants would more often select the response that had been expressed with generic-you.

2.1. Method

2.1.1. Participants

We aimed to recruit 100 participants through TurkPrime (Litman, Robinson, & Abberbock, 2016).³ Data from 110 individuals were

² Variables containing information on participants’ geographic location were removed to ensure that participants could not be reasonably identified through a combination of their race, age, gender, occupation, and physical location.

³ A post-hoc power analysis using G*Power3 was conducted after an initial

collected. One participant was excluded for not being a native English speaker, an additional six participants were excluded for dropping out, and one participant was excluded for failing the attention check regarding which action they were supposed to select (i.e., the correct one vs. the incorrect one). This left a sample of 102 participants (37 women), $M_{\text{age}} = 36.66$, $SD = 11.31$, 80% White.

2.1.2. Materials

We selected objects that prior research with children had established as relatively unfamiliar (Corriveau & Harris, 2009; Gauthier et al., 2014). For each object, participants were presented with a label (for example, a garlic peeler was referred to as a “snegg”) and two different ways to use it, one using generic-you and the other using “I” (e.g., “You look through a snegg” vs. “I blow through a snegg”). Table 1 provides the photographs, labels, and functions for each object.

2.1.3. Design

We used a repeated measures design with four trials. As a between-subjects factor, we varied whether the speaker described a given action with generic-you or ‘I’, which also counterbalanced which pronoun appeared first within a given trial. Trials within each block were randomized.

2.1.4. Procedure

After providing consent and indicating that they were native English speakers, participants were told to imagine that they were in a foreign land with unfamiliar objects that they had never seen before, and that they needed to figure out the right way to use them. Participants were next informed that they would be able to watch some people interacting with the objects. They further were told:

“Some people are from this land and know how to use these objects. They learned how to use them when they were children, and they have seen many people using them before. Other people are not from this land, and do not know how to use these objects. They only recently encountered these objects, and have not seen others using them before.”

Next, participants completed the four trials. Before each trial we instructed participants to consider that they had first asked the target question (e.g., “You ask, ‘What do you do with sneggs?’”). With this question-answer framing, we ensured that the ‘you’ in the response was generic, not directed at the addressee, because a question asked with “you” that is answered with “you” is typically interpreted as generic (though, importantly, this is just one way to establish that ‘you’ is generic). We then asked participants, “Based on what the two people said, what should you do with sneggs?” For example:

You ask, “What do you do with this?”

Person A looks through a snegg and says, “You look through a snegg.”

Person B blows through a snegg and says, “I blow through a snegg.”

Based on what the two people said, what should you do with sneggs?





- Look through
- Blow through

After completing four trials, participants completed an attention

(footnote continued)

pilot experiment, Supplementary Experiment 1, which varied both pronoun (i.e., generic-you vs. “I”) and verb aspect (i.e., present non-progressive vs. present progressive). This analysis revealed that a sample of 47 participants would provide 95% power to detect an effect size for $d = 0.49$. However, we expected that the size of the effect in Experiment 1 could be smaller when only pronoun varied, so we again collected data from 100 participants.

Table 1
Stimuli used in experiment.

Item	Label	Action A	Action B
	Snegg	Look through	Blow through
	Hoon	Roll in between hands	Slap on hands
	Linz	Twist back and forth	Squeeze up and down
	Slod	Hold up to eye	Fly around

check where they were asked whether they were supposed to select the action they thought was the correct or incorrect way to use the object. Participants then answered three debriefing questions: “What do you think we were interested in looking at in this study?” “Did anything seem strange to you?” and “How did you judge which action was the ‘correct’ one?”. We also asked participants whether they recognized any of the objects; on the majority of trials (90%), participants indicated no familiarity with the items.

2.2. Results

Participants selected the actions described with generic-you 57.60% of the time, which is significantly above chance (50%), $t(101) = 2.87$, $p = .005$, 95% CI [52.35, 62.85], $d = 0.28$. There was no significant effect of order on participants' tendency to select the action expressed with generic-you, $b = 2.45$, $t(100) = 0.461$, $p = .646$. We also calculated a corrected percentage score to exclude trials on which participants indicated familiarity with the objects. Using this score, participants chose objects with “you” 56.94% of the time, which was also significantly above chance, $t(101) = 2.50$, $p = .014$, 95% CI [51.43, 62.46], $d = 0.25$.

2.3. Discussion

Experiment 1 indicated that generic vs. specific pronouns can influence whether individuals interpret a given action as normative. To our knowledge, this is the first experiment to demonstrate that a simple shift in pronoun (i.e., from specific ‘I’ to generic-you) can affect the normative interpretation of information. These findings demonstrate that people are sensitive to a subtle linguistic shift, using it to inform their judgment of how normatively correct a given action is.

3. Experiment 2

In Experiment 1, participants were given information about how to use objects. Our next set of studies sought to extend these findings by assessing whether generic-you is also useful for providing information about behavioral customs, which are flexible and can vary across contexts and cultures. In the United States, for example, people ride the “up” escalator standing on the right side, whereas in most of Japan, they ride the “up” escalator standing on the left side. To figure out the correct way to do things in Japan, an American would likely be reliant on social input, and may, for example, look to how most people are acting in a given situation. We reasoned that the generic usage of the word “you” might likewise serve as a cue regarding how people act in a given context. Thus, Experiment 2 was designed to examine whether

the effects of generic-you vs. ‘I’ on judgments of normativity extended to customs, for which social input, in this case via language, would be particularly important.

More specifically, we presented individuals with a series of customs that were meant to be specific to the foreign planet “Zorp.” Participants were presented with only one statement at a time, which described a behavior with either generic-you or ‘I’. This allowed us to conservatively assess the influence of generic-you alone, rather than directly contrasted with “I” (as in Experiment 1). This design also more closely approximates linguistic information that a person would typically encounter in the real world. That is, typically, people are presented with information from only one speaker at a time, and the speaker's usage of “I” or generic-you may vary. After reading each statement, participants were asked to judge how confident they were that “this was the right way to do things on Zorp,” allowing us to assess whether participants made an inference about how things *should* be done.

3.1. Method

3.1.1. Participants

We aimed to recruit a sample of 100 participants using TurkPrime (Litman et al., 2016). Data from 101 individuals were collected. Two participants were excluded because we determined that their responses were provided by nonhuman robots, which complete tasks through automated scripts, or participants on “server farms”.⁴ An additional three participants were excluded for not being native English speakers. This left a sample of 96 participants (46 women); $M_{age} = 36.59$, $SD = 11.60$; 80% White.

3.1.2. Materials

Participants were presented with eight trials. Each trial consisted of a question that asked about customs on the foreign planet; for example, “What do you do before a meal on Zorp?” and an answer to that question, which contained either generic-you or ‘I’; for example, “I/you give thanks to the gods.” Table 2 provides the questions and answers for each of the eight trials.

3.1.3. Design

We used a within-subjects design that included repeated measures for pronoun (generic-you vs. ‘I’). Participants received four unique trials with answers that contained generic-you and four unique trials with answers that contained ‘I’. Pronoun usage was blocked, and pronoun order was counterbalanced, such that half of the participants received four trials in a row with ‘you’ answers first, and half received four trials in a row with ‘I’ answers first. In the first block, four trials were randomly selected from the pool of eight questions. In the second block, participants were presented with the four remaining questions. Thus, our design ensured that each question was presented only once to each participant and was paired equally often with both types of pronouns across participants. The order of the trials was further randomized within each block.

3.1.4. Procedure

After providing consent, participants were presented with a cover story similar to that used in Experiment 1. Specifically, participants were told to imagine that they had just arrived on a foreign planet called Zorp, which had customs that were very different from those on

⁴ We identified ‘bots’ or workers taking HITS from server farms by searching for a GPS coordinate that had been widely reported as appearing in a number of academic studies shortly after our data were collected. We additionally identified ‘bots’ by searching for other repeating GPS locations, as well as responses to open-ended data that appeared to be provided by a robot (e.g., answers in all caps, answers that were entirely off-topic).

Table 2
Questions and answers used in Experiments 2–4.

Question	'You' & 'I' answers
What do you do before a meal on Zorp?	You/I give thanks to the gods.
How do you greet someone on Zorp?	You/I grab their left elbow with your/my right hand and shake it.
How do you show respect for your host on Zorp?	You/I do not clean up after yourself/myself and instead allow them to do it.
When do you arrive at a party on Zorp?	You/I arrive 10 minutes early, to show your/my excitement.
Where do you sit in a taxi on Zorp?	You/I sit in the front seat, next to the driver.
How do you dance at a party on Zorp?	You/I only dance in groups of 4 people or more.
How do you order food at a restaurant on Zorp?	You/I order your food with your/my eyes lowered.
How do you dress on Zorp?	You/I wear clothes that cover your/my knees.

Note. For each question, participants were provided with either the 'You' or the 'I' answer. Participants saw each question only once.

Earth. Next, they were told that to figure out how to do things on Zorp, they would be able to ask people who lived there some questions. As in Experiment 1, participants were told that some people were from Zorp and knew all of the customs, whereas other people were new to Zorp and did not know any of the customs. Participants were then told to "figure out the right way to do things on Zorp based on what [the people] say." Participants then completed the eight trials, rating their level of confidence that "this was the right way to do things on Zorp" (1-not at all confident, 7-extremely confident) after each one.

After completing the trials, participants answered the same three debriefing questions used in Experiment 1, and completed demographics.

3.2. Results

We analyzed the data using a multi-level, mixed-effects approach. This allowed us to consider the fixed effects of pronoun ('You' vs. 'I') and order ('I' block 1st vs. 'You' block 1st), while also taking into account the random variation associated with the different questions.⁵ The data were analyzed using R's lme4 package for mixed-effects (Bates, Maechler, Bolker, & Walker, 2015). Degrees of freedom and *p*-values for the mixed-effects models were obtained using the lmerTest package (Kuznetsova, Brockhoff, & Christensen, 2017). The model treated Pronoun ('You' = 0.5 vs. 'I' = -0.5) and Order ('You' 1st = 0.5 vs. 'I' 1st = -0.5) as fixed effects. Slopes and intercepts for the effect of Pronoun on confidence ratings were allowed to vary across participants, and the intercept for the effect of trial on confidence ratings was also allowed to vary. Because we had no reason to expect the effect of pronoun to be different for different trials, and because the design ensured that different pronouns were equally distributed across the eight questions, we used a more parsimonious model, which treated trial as a random effect with random intercepts, not slopes (Bates, Kliegl, Vasishth, & Baayen, 2015). Table S1 provides the results for all fixed and random effects included in the model; below, we include the fixed effects of primary interest.

As predicted, participants expressed more confidence that a given action was the right way to do things on Zorp if it was presented with generic-you ($M = 4.37$, $SE = 0.18$) than with 'I' ($M = 4.07$, $SE = 0.18$), $b = 0.30$, $SE = 0.12$, $t(94) = 2.48$, $p = .015$, 95% CI [0.06, 0.53]. Whether participants received the block with generic-you or 'I' first did not significantly affect their confidence ratings, $b = 0.21$, $SE = 0.19$, $t(94) = 1.13$, $p = .263$, 95% CI [-0.16, 0.59]. Additionally, there was no significant interaction between pronoun type and order on confidence ratings, $b = 0.12$, $SE = 0.24$, $t(94) = 0.51$, $p = .613$, 95% CI [-0.35, 0.59].

⁵ Because Experiment 1 used a force-choice paradigm that counterbalanced across participants which action was paired with generic vs. non-generic language, results were analyzed with a simple one-sample *t*-test. In Experiments 2–4, the stimuli were more variable across trials and there were additional, between-subjects factors; for these reasons, we used multi-level modeling to more conservatively test the hypotheses.

3.3. Discussion

The findings from Experiment 2 suggest that generic-you carries persuasive value when people make normative judgments about unfamiliar customs. It is notable that this design required participants to evaluate each behavior individually, and that there was no effect of pronoun order on ratings. This illustrates that generic-you statements influence perceptions of how normative a given action is, not only when they are directly contrasted with 'I' statements but also when they are presented by themselves.

4. Experiment 3

One important feature of Experiments 1–2 is that they created an expectation that some of the information that participants were exposed to may be incorrect, because some inhabitants were new to the land and did not know how to do things there. We reasoned that this framing might lead participants to infer that a "new arrival" to Zorp would be more likely to answer a question specifically (i.e., with 'I'), describing how they, personally, would act in given situation, whereas a "native" would be more likely to answer for the group, using generic-you.

One question arising from these studies, then, is whether individuals would still be sensitive to the generic usage of 'you' when there was no "new arrival" – that is, when *all* informants knew the norms.

To examine this question, Experiment 3 included a between-subjects factor that manipulated how much knowledge the inhabitants of Zorp had. Some participants were given the same cover story as in Experiments 1–2, in which some people knew how to do things on Zorp, whereas other people did not know how to do things there (referred to hereinafter as the Variable Knowledge Condition). Other participants were told that everyone knew the customs on Zorp (referred to hereinafter as the High Knowledge Condition).

Within the Variable Knowledge Condition, we expected the findings from Experiment 2 to replicate, with a significant effect of generic-you on participants' confidence that a given behavior expressed the right way to do things. In contrast, we had two competing predictions regarding the High Knowledge condition. On the one hand, participants may believe that behaviors express with "I" are reflective of the norms, given that every informant is knowledgeable about the customs on Zorp. If this were the case, we could expect to observe a significant Pronoun X Knowledge interaction, with no difference between generic-you and 'I' ratings in the High Knowledge condition. On the other hand, if linguistic cues influence judgments above and beyond other information that individuals may have access to, then generic-you statements may still nudge people to endorse norms more highly, even when everyone is highly knowledgeable. If this were the case, we would expect to observe a main effect of Pronoun on participants' ratings, and no Pronoun X Knowledge Interaction.

4.1. Method

4.1.1. Participants

Given the added between-subjects factor, we doubled our target sample size to 200 participants. We recruited 205 individuals using TurkPrime (Litman et al., 2016). We excluded 11 participants on the basis of identifying them as likely non-human (automated) respondents, following the same criteria outlined in Experiment 2. One additional participant was excluded for not being a native English speaker. This left a sample of 193 participants (74 women); $M_{\text{age}} = 37.84$, $SD = 26.77$; 82% White.

4.1.2. Materials

See Experiment 2.

4.1.3. Design

As described above, the design for Experiment 3 was identical to that of Experiment 2 with one exception: We added a between-subjects factor where we manipulated the amount of knowledge that people from Zorp possessed. Specifically, some participants were presented with the same cover story used in Experiments 1 and 2, wherein some people knew the customs on Zorp and some did not (Variable Knowledge condition). Other participants were told that *everyone* knew the customs on Zorp (High Knowledge condition). Specifically, they were told:

“Everyone is from the planet Zorp and knows how to act in all different types of situations. They learned the customs of Zorp when they were children, and have seen many people doing them before.”

Participants in both conditions were then told, “Please try to figure out the right way to do things on Zorp based on what [the people] say.”

Thus, our design consisted of a 2 (Knowledge: High Knowledge vs. Variable Knowledge) \times 2 (Pronoun: You vs. I) \times 2 (Order: ‘You’ block first vs. ‘I’ block first) design, where Knowledge and Order were between-subjects factors, and Pronoun was a within-subject factor.

4.1.4. Procedure

The procedure was identical to Experiment 2; participants completed the eight trials (for each, rating their level of confidence that “this was the right way to do things on Zorp” on a 1–7 scale), and then completed the same debriefing questions and demographics information.

4.2. Results

4.2.1. Overview

Data were analyzed with the same R packages described in Experiment 2. We entered Pronoun (‘You’ = 0.5 vs. ‘I’ = −0.5), Order (‘You’ 1st = 0.5 vs. ‘I’ 1st = −0.5), Condition (High Knowledge = 0.5 vs. Variable Knowledge = −0.5), and all interaction terms as fixed effects. As in the previous model, slopes and intercepts for the effect of pronoun on confidence ratings were allowed to vary across participants, and the intercept for the effect of trial on confidence ratings was also allowed to vary. Table S2 provides the results for all fixed and random effects included in the model; below, we include the fixed effects of primary interest.

4.2.2. Main analyses

As expected, participants in the High Knowledge condition were more confident overall that the behaviors described were the right way to do things on Zorp ($b = 0.98$, $se = 0.14$, $t(189) = 7.01$, $p < .001$, 95% CI [0.70, 1.25]), providing validation that participants attended to the knowledge manipulation.

Consistent with our prior experiments, we observed a main effect of Pronoun, indicating that participants endorsed norms described with generic-you ($M_{\text{you}} = 4.75$, $SE = 0.17$) more highly than those described

with ‘I’ ($M_I = 4.53$, $SE = 0.17$), $b = 0.22$, $SE = 0.07$, $t(189) = 3.10$, $p = .002$, 95% CI [0.08, 0.36]. We did not, however, observe a significant Condition \times Pronoun interaction ($b = 0.19$, $SE = 0.14$, $t(190) = 1.34$, $p = .181$, 95% CI [−0.09, 0.47]; High Knowledge: $M_{\text{you}} = 5.29$, $SE = 0.19$, $M_I = 4.97$, $SE = 0.18$; Variable Knowledge: $M_{\text{you}} = 4.21$, $SE = 0.19$, $M_I = 4.09$, $SE = 0.18$). The lack of a significant Condition \times Pronoun interaction indicates that the amount of knowledge that informants possessed did not differentially affect the normative force of generic-you on participants’ judgments.

Whether participants received the block with generic-you or ‘I’ first did not significantly affect their confidence ratings ($p = .812$). There were no other significant interactions (all $ps > .392$).

4.3. Discussion

The results of Experiment 3 were consistent with those obtained in the prior experiments: behaviors expressed with generic-you were rated as more normatively correct than those expressed with ‘I’. Moreover, the effect of pronoun on participants’ ratings of correctness did not vary depending on how much knowledge the inhabitants of Zorp were said to have about how to do things there. Crucially, this finding was not due to a lack of sensitivity to the two knowledge conditions, because confidence ratings were substantially higher overall in the High Knowledge (vs. Variable Knowledge) condition.

5. Experiment 4

To strengthen our confidence in these findings, we conducted Experiment 4, with several minor methodological changes to rule out alternative explanations for the lack of a significant Condition \times Knowledge interaction. These changes were meant to strengthen the interpretation that informants knew the customs in the “High Knowledge” condition.

5.1. Method

5.1.1. Participants

Our intended sample size was 200 participants recruited through TurkPrime (Litman et al., 2016). Data from 219 participants were collected. We excluded twenty participants on the basis of having identified them as likely non-human (automated) respondents, following the same criteria described in Experiment 3. An additional 10 participants dropped out of the study or opened the “HIT” and did not complete it, four participants were excluded on the basis of not being native English speakers, one person did not provide consent, and one response was excluded because another (earlier) response was collected from the same IP address. Finally, we excluded 25 participants who failed the attention check regarding how much knowledge the inhabitants of Zorp had. This left a sample of 158 participants (83 women); $M_{\text{age}} = 36.44$, $SD = 11.00$, 84% White.

5.1.2. Materials

See Experiments 2 and 3.

5.1.3. Design

As in Experiment 3, our design consisted of a 2 (Knowledge: High Knowledge vs. Variable Knowledge) \times 2 (Pronoun: ‘You’ vs. ‘I’) \times 2 (Order: ‘You’ block first vs. ‘I’ block first) design, where Knowledge and Order were between-subjects factors, and Pronoun was a within-subject factor.

5.1.4. Procedure

The procedure for Experiment 4 was similar to that used in Experiment 3, with the following minor adjustments. First, within the High Knowledge condition, the directions clarified that these inhabitants not only *knew* the rules, but *followed* them (addition is

illustrated here in bold, but was not bolded for participants):

“Everyone is from the planet Zorp and knows how to act in all different types of situations. They learned the customs of Zorp when they were children, have seen many people doing them before, **and they always do things the right way.**”

We also removed the phrase, “Please try to figure out the right way to do things on Zorp based on what they say” from this condition. We reasoned that this phrase may have introduced potential confusion, because it implied that there was “something to figure out” even though participants in this condition had been told that all inhabitants knew how to act on Zorp. The dependent variable was the same as in Experiments 2 and 3: on each trial, participants rated their level of confidence that “this was the right way to do things on Zorp,” on a 1–7 scale.

5.2. Results

We used the same analytic approach described in Experiment 3. Table S2 provides the results for all fixed and random effects included in the model; below, we include the fixed effects of primary interest.

5.2.1. Main analyses

As expected, participants in the High Knowledge condition were more confident overall than those in the Variable Knowledge condition that the behaviors described were the right way to do things on Zorp ($p < .001$), again validating the knowledge manipulation.

Replicating the previous experiments, we observed a significant main effect of Pronoun: participants provided higher confidence ratings of the behaviors when they were described with generic-you ($M = 5.01$, $SE = 0.18$) than with “I” ($M = 4.73$, $SE = 0.17$), $b = 0.28$, $SE = 0.08$, $t(152) = 3.42$, $p = .001$, 95% CI [0.12, 0.43]. Further replicating Experiment 3, there was no Condition X Pronoun interaction, indicating that participants' endorsement of norms expressed with generic-you did not vary based on how knowledgeable their informants were ($b = -0.21$, $SE = 0.16$, $t(153) = -1.27$, $p = .206$, 95% CI [-0.52, 0.11]; High Knowledge: $M_{you} = 5.73$, $SE = 0.20$, $M_I = 5.56$, $SE = 0.20$; Variable Knowledge: $M_{you} = 4.29$, $SE = 0.20$, $M_I = 3.91$, $SE = 0.20$).

Whether participants received the block with generic-you or “I” first did not significantly affect their confidence ratings ($p = .629$), and there were no other significant interactions (all $ps > .20$).

5.3. Discussion

This experiment provides further evidence that generic-you influences the extent to which a given behavior is interpreted as normative. Moreover, the results from Experiments 3 and 4 indicate that generic-you nudges participants' endorsements of behaviors compared to ‘I’, and that this effect is not dependent on how knowledgeable the informants providing the information are.

It may be surprising that generic-you continued to influence people's judgments in the high knowledge condition, given that these participants were told that the inhabitants of Zorp “know how to act in all different types of situations...and they always do things the right way.” However, interpretations of natural language often deviate from a strictly logical interpretation (Noveck, 2004). For example, research indicates that people tend to interpret universal quantifiers (such as “all” or “always”) loosely, allowing for exceptions (Leslie & Gelman, 2012; Leslie, Khemlani, & Glucksberg, 2011). Consistent with this point, although ratings in the high knowledge condition were higher than those in the variable knowledge condition (demonstrating sensitivity to the manipulation) they were not at ceiling. Given this colloquial interpretation of inhabitants' knowledge of norms on Zorp, there was still room for generic-you to have an effect on people's interpretations of behavior.

6. Experiments 5a & 5b

Experiments 1–4 demonstrated that generic-you (vs. “I”) affects people's interpretation of how normatively correct a given behavior is. In this last set of experiments, we sought to address a key question raised by these findings.

Specifically, do the results observed in Experiments 1–4 indicate that generic-you *increased* the persuasive force of a statement, because it is particularly general, or that “I” *decreased* the persuasive force of a statement, because it is particularly individuating? To address this question, we compared generic-you to third-person singular pronouns (“he” or “she”), which we reasoned would provide a more neutral baseline because they refer to a specific individual but do not additionally function as a personal endorsement.

7. Experiment 5a

Experiment 5a compared generic-you statements to “I” statements to ensure that the findings would replicate with this revised task, which was designed to permit use with a broader array of linguistic forms (including “he” and “she” [Experiment 5b] and “people” [Supplementary Experiment 2]; see Method). The results from Experiment 5a would also allow us compare the effect size for generic-you vs. “I” to the other linguistic contrasts we planned to test using this revised paradigm.

7.1. Method

7.1.1. Participants

We aimed to recruit a sample of 100 participants using TurkPrime (Litman et al., 2016). Data from 109 individuals were collected. Two participants were excluded because we determined that their responses were provided by nonhumans robots or by participants on a “server farm;” two participants were excluded for failing the attention check. An additional three participants were excluded for not being native English speakers. Two participants dropped out, and one participant was screened out for indicating that they were accessing the survey through a mobile device or tablet. This left a sample of 99 participants (41 women); $M_{age} = 35.91$, $SD = 11.20$; 74% White.

7.1.2. Materials

We selected novel labels (e.g., slods) for each item based on prior research (Corriveau & Harris, 2009; Horst & Hout, 2016). Each of the four items was presented with two different behaviors that could reasonably reflect *customs* or *individual preferences*: display them in living room/dining room; eat them for breakfast/lunch; share them with friends/family; on formal occasions, put them on hat/shoes. These actions were pre-tested (without pronouns) to ensure that they were equivalently plausible within each pair (e.g., display in living room vs. display in dining room). Table S2 provides the wording for each item. No pictures of the novel items were provided.

7.1.3. Design

We used a repeated measures design with four trials. On a given trial, participants were presented with two actions, one of which was worded with generic-you and the other of which was worded with “I.” Across participants, assignment of pronoun to action (e.g., whether generic-you went with Action A or Action B) and order of pronouns (e.g., whether generic-you was on the left or right) was fully counter-balanced, yielding four different versions of the task. For a given participant, the order of pronouns was kept constant. Within each version, trials were presented in randomized order.

7.1.4. Procedure

The procedure was similar to Experiment 1, with the following modifications: First, we constructed a new cover story which

emphasized the difference between people who did things according to the rules vs. people who did things according to their preferences. Specifically, participants were told, “Some people are “rule followers”. They do things the right way, the way they’re supposed to. Other people are “free thinkers”. They do things their own way, the way they like to.” We reasoned that this framing may increase people’s sensitivity to the linguistic cues, given that prior work has found that people use generic-you to express norms and “I” to express preferences (Orvell et al., 2017). Second, participants were not shown pictures of the objects, in order to minimize their reliance on extraneous cues. Third, we selected behaviors that went beyond strict functionality of objects, and instead could reflect customs or individual preferences. Fourth, participants were not cued to simulate asking a question for each trial. This allowed us to test linguistic mechanisms such as “he” or “people” which would not make sense in response to a question with “you.” It also permitted a test of effects of generic-you that did not rely on the question-answer framing used in the prior experiments. Fifth, participants were asked to indicate which of the two actions represented the right way to interact with the item (similar to Experiments 2–4). Sixth, we presented the two actions side-by-side and told participants that the two people responded separately and did not hear what each other said; this permitted us to rule out any interpretation that one person was responding to or correcting the other, which also ensured that the “you” was referring to people in general rather than to the other informant. Given this layout, we screened participants to ensure that they were viewing the survey through a computer rather than a tablet or mobile device. For example:

Person 3: Here’s what you do with nilts.
You eat them for breakfast.

Person 4: Here’s what I do with nilts.
I eat them for lunch.

After completing all four trials, participants answered the same attention check, debriefing, and demographics questions presented in Experiment 1.

7.2. Results and discussion

Participants selected the actions described with generic-you 69% of the time, which is significantly above chance (50%), $t(98) = 5.45$, $p < .001$, 95% CI [61.88, 75.49], $d = 0.55$. There was no significant effect of order on participants’ tendency to select the action expressed with generic-you, $F(3, 95) = 0.273$, $p = .845$.

These findings replicate Experiments 1–4 by demonstrating that generic-you influences people’s judgments of how normatively correct a given action is, when contrasted with ‘I’.

8. Experiment 5b

As explained earlier, one question arising from Experiments 1–4 is whether ‘you’ increases the normative force of a statement, or instead whether ‘I’ decreases the normative force of a statement (i.e., if ‘I’ is especially individuating). To address this question, Study 5b provided a more neutral baseline condition against which generic-you could be compared by contrasting generic-you statements with “he” or “she” statements.

8.1. Method

8.1.1. Participants

We aimed to recruit a sample of 100 participants using TurkPrime (Litman et al., 2016). Due to a technical error, data from 172 individuals were collected. Eight participants dropped out nearly immediately. An additional six participants were excluded for not being native English speakers and four were screened out for indicating that they were accessing the survey through a mobile device or tablet. Two participants were excluded for failing the attention check. This left a sample of 152 participants (70 women); $M_{age} = 37.05$, $SD = 12.10$; 72% White.

8.1.2. Materials

See Experiment 5a.

8.1.3. Design and procedure

The design and procedure were identical to Experiment 5a, except that ‘I’ was replaced with either ‘he’ or ‘she’. Whether a participant received male pronouns (“he,” “his”) or female pronouns (“she,” “her”) varied between subjects and was randomly determined.

8.2. Results and discussion

Participants selected the actions described with generic-you 75% of the time, which is significantly above chance (50%), $t(151) = 10.70$, $p < .001$, 95% CI [70.65, 80.01], $d = 0.87$.⁶ There was no significant effect of pronoun and action order on participants’ tendency to select the action expressed with generic-you, $F(3, 148) = 2.44$, $p = .066$, nor did it matter whether participants were presented with “he” versus “she” pronouns, $b = -4.60$, $t(150) = -0.97$, $p = .333$.

Thus, when generic-you was compared against a neutral baseline, it again was viewed as more normative. These results indicate that the findings from Experiments 1–5(a) were not driven by “I” being viewed as especially individuating. To the contrary, the size of the effect in Experiment 5b (“You” vs. “He/She”) was greater than that observed in Experiment 5a (“You” vs. “I”). Given that “I” expresses a personal endorsement, we suggest that the you/I contrasts in Experiments 1–5(a) provided a particularly strong test of the hypothesis that generic-you can influence people’s perceptions of norms.

9. General discussion

The ability to deduce which norms govern a certain situation is an essential component of social life. Across five studies, we find that a subtle linguistic mechanism, the generic usage of ‘you’, functions as a linguistic nudge that affects people’s interpretation of the right way to behave. In contrast to prior studies, which have focused on how context leads people to shift their use of pronouns—producing ‘I’ when discussing preferences and ‘you’ when discussing norms (Orvell et al., 2017), to our knowledge this is the first set of studies to examine how these linguistic shifts are interpreted. The present results demonstrate that generic-you has functional consequences not just for the speaker, but for the listener as well. Specifically, they illustrate that whether a pronoun is personal (i.e., ‘I’) or general (i.e., generic-you) can meaningfully affect how a listener interprets unfamiliar norms.

These experiments provided a particularly strong test of our hypothesis. In Experiment 1, we found that generic-you (vs. “I”) led people to endorse behaviors associated with novel objects as more normatively correct. In Experiments 2–4, we focused on customs, presenting participants with identical content, varying only a single word (‘you’ or ‘I’) across trials, to examine the effect of pronoun in isolation. In Experiment 5b, we contrasted generic-you to a more neutral baseline (‘he’ or ‘she’ rather than ‘I’). In all of these experiments, participants received minimal context. Given this, it would not have been surprising if participants had focused exclusively on the content and plausibility of the information that was expressed. For example, in Experiment 1, participants may have tried to deduce the correct action from the shape of the object. In Experiments 2–5, they may have tried to consider whether a given custom may be logical in other cultural contexts. Indeed, many participants noted that they did just this in their debriefing responses (e.g., one participant said that they tried to consider “If the custom sounded believable”). Given that people try to use

⁶ Restricting our sample to the first 100 eligible participants (i.e., our intended sample size) yielded the same pattern of results: participants chose actions with “you” 76% of the time, $t(99) = 9.75$, $p < .001$, 95% CI [70.91, 81.59], $d = 0.98$.

whatever world knowledge they possess to make inferences about others' behaviors, it is striking that pronoun exerted a role above and beyond content.

It is important to note that generic-you simply expresses that information is general, extending beyond a single individual. It does not say anything about which behaviors are correct or appropriate; this is an added semantic implication. It is also perfectly acceptable for people to endorse or express norms personally (e.g., "I brush my teeth in the morning and at night"). Moreover, personal endorsements can be quite powerful, because the speaker is publicly vouching for the behavior and may serve as a role model. In fact, a subset of the participants did report in debriefing that statements expressed with "I" indicated a model to be followed. Nonetheless, despite the power of "I", most participants found generic-you to be even more persuasive. These results further support the broader claim that people have a tendency to infer prescriptive norms—that is, what *should* be done, from descriptive information—that is, what *is* done (Roberts, Gelman, & Ho, 2017; Tworek & Cimpian, 2016).

One important question for future research concerns the extent to which generic-you influences people's judgments outside of their conscious awareness. Anecdotally, people often do not seem to notice when they have shifted from "I" to generic-you when they are speaking, and may realize only when miscommunications arise. Similarly, people seem to quickly deduce whether a "you" is generic (i.e., referring to people in general and/or the speaker herself) or canonical (i.e., referring to addressee) when in conversation with others. For example, if a mother said, "You forget the pain of childbirth once it's over," the man to whom she was speaking would not infer that the 'you' was referring to him, specifically (Gast, Deringer, Haas, & Rudolf, 2015). In this way, it is plausible that generic-you may be processed rapidly, intuitively, and relatively effortlessly (Orvell, Ayduk, Moser, Gelman, & Kross, in press). Consistent with this suggestion, our debriefing data indicate that participants in Experiments 1–5 typically did not mention using "generic-you" to inform their judgments (instead noting that they "went with their gut" or selected the answer that seemed more plausible). In contrast, in Supplementary Experiment 2, which compared the persuasive force of "people" to "I", roughly half of the participants mentioned using the word "people" to determine which action was correct. This suggests that individuals may rely on generic-you to inform their judgments, even when not explicitly aware that they are doing so. Future research should examine this question more directly. A related question is whether usage of generic-you also affects the listener's judgments of the speaker. For example, do people view an individual who is using generic-you as more trustworthy, confident, or as possessing authority?

An important challenge for future research is to examine the generalizability of these effects across different languages and cultures. The current experiments were conducted in English, with participants located in the United States, so we certainly cannot assume that the effects obtained in this population are universal. Indeed, although all languages possess some way to refer to people in general (Siewierska, 2004), it is not always done with generic-you.⁷ Other means of generic reference include other pronouns (e.g., one, man, or we), verb forms (e.g., reflexive), or grammatical sentence structures (e.g., making grammatical patient the topic). Future research should examine what is common across these different uses and what is distinctive to particular uses. Another question for future research is whether or how aspects of a given culture may moderate the strength of generic person reference

on persuasion. For example, the extent to which a culture is "tight," meaning that the social norms which govern it are many and strong, vs. "loose," meaning that the social norms that govern it are few and weak (Gelfand, Nishii, & Raver, 2006; Gelfand et al., 2011) may affect people's sensitivity to linguistic indicators. To the extent that people are more motivated to conform in tight cultures, individuals living in tight cultural contexts may be more sensitive to linguistic expressions of generality, such as generic-you.

Another question for future research is when in development children may be influenced by generic-you. Children are constantly trying to piece together parts of their social world, identifying norms that apply in the classroom, at home, or on the playground (Gockeritz, Schmidt, & Tomasello, 2014; Rakoczy & Schmidt, 2013; Schmidt & Tomasello, 2012). Research suggests that children, like adults, are sensitive to contexts in which generic-you is appropriate, using it to describe norms rather than preferences (Orvell et al., 2018). Given this, a fruitful direction would be to examine if and when children rely on generic-you to inform their judgments of norms.

Finally, although the magnitude of the effects of generic-you in these studies was modest, our findings raise the possibility that generic-you may function as a linguistic nudge that affects people's interpretations of norms in more consequential contexts including health or sustainability practices (perceptions of norms regarding alcohol consumption, recycling, etc.). Whereas attitudes are often formed based on life experiences, and are difficult to change because they are connected to personal beliefs, people's perceptions of norms are often easier to move around in ways that have implications for behavior (Tankard & Paluck, 2016). Indeed, interventions that highlight descriptive norms (that is, by indicating how many people do a certain behavior, for example, vote) have been used effectively in the past to change people's behavior related to voting (Gerber & Rogers, 2009), environmental sustainability (Cialdini et al., 2006; Goldstein, Cialdini, & Griskevicius, 2008), and intentions to confront prejudice (Bennett & Sekaquaptewa, 2014). Yet descriptive norm interventions can, at times, backfire (e.g., Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007). In contrast, the subtlety of generic-you may buffer against such reactance effects. Finally, it is possible that the persuasive force of generic-you may increase in domains that are self-relevant.

10. Conclusion

In sum, these findings add to a growing body of research that illuminates how small shifts in language can serve as a window, revealing how people interpret their environment, and as a lever, affecting how people interact with their environment, in this case, leading them to perceive certain behaviors as more normative.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jesp.2019.103869>.

References

- Asch, S. (1951). Effects of group pressure upon the modification and distortion of judgments. In M. Henle (Ed.), *Documents of gestalt psychology*. Berkeley and Los Angeles: University of California Press.
- Bates, D., Kliegl, R., Vasishth, S., & Baayen, H. (2015). Parsimonious mixed models. *ArXiv Preprint ArXiv:1506.04967* <http://doi.org/arXiv:1506.04967>.
- Bates, D., Maechler, M., Bolker, B., & Walker, S. W. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1), 1–48.
- Bennett, J. E., & Sekaquaptewa, D. (2014). Setting an egalitarian social norm in the

⁷ Interestingly, however, a variety of languages—including unrelated languages—express generic person by means of the pronoun "you", including Dutch, German, Gulf Arabic, Hindi, Mandinka, Saliba-Logea, and Duna (Creissels, 2013; de Hoop & Tarenskeen, 2015; Kitagawa & Lehrer, 1990; Majid, personal communication; Margetts, 2015). This cross-linguistic regularity suggests the likelihood of a common conceptual basis to this usage.

- classroom: Improving attitudes towards diversity among male engineering students. *Social Psychology of Education*, 17(2), 343–355. <https://doi.org/10.1007/s11218-014-9253-y>.
- Berry, R. (2009). You could say that: The generic second-person pronoun in modern English. *English Today*, 25(3), 29–34. <https://doi.org/10.1017/S0266078409990368>.
- Bicchieri, C. (2005). *The grammar of society: The nature and dynamics of social norms*. Cambridge University Press.
- Bolinger, D. L. (1979). To catch a metaphor: You as norm. *American Speech*, 54(3), 194–209. <https://doi.org/10.2307/454949>.
- Cialdini, R. B., Demaine, L. J., Sagarin, B. J., Barrett, D. W., Rhoads, K., & Winter, P. L. (2006). Managing social norms for persuasive impact. *Social Influence*, 1(1), 3–15. <https://doi.org/10.1080/15534510500181459>.
- Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. *Advances in Experimental Social Psychology*, 24, 201–234. [https://doi.org/10.1016/S0065-2601\(08\)60330-5](https://doi.org/10.1016/S0065-2601(08)60330-5).
- Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.). *The handbook of social psychology* (pp. 151–192). New York, NY, US: McGraw-Hill.
- Corriveau, K., & Harris, P. L. (2009). Choosing your informant: Weighing familiarity and recent accuracy. *Developmental Science*, 12(3), 426–437. <https://doi.org/10.1111/j.1467-7687.2008.00792.x>.
- Creissels, D. (2013). The generic use of the second person singular pronoun in Mandinka. In D. Bakker, & M. Haspelmath (Eds.). *Languages across boundaries: Studies in memory of Anna Siewierska* (pp. 53–67). Walter de Gruyter.
- de Hoop, H., & Tarenskeen, S. (2015). It's all about you in Dutch. *Journal of Pragmatics*, 88, 163–175.
- Gaither, S. E., Chen, E. E., Corriveau, K. H., Harris, P. L., Ambady, N., & Sommers, S. R. (2014). Monoracial and biracial children: Effects of racial identity saliency on social learning and social preferences. *Child Development*, 85(6), 2299–2316. <https://doi.org/10.1111/cdev.12266>.
- Gast, V., Deringer, L., Haas, F., & Rudolf, O. (2015). Impersonal uses of the second person singular: A pragmatic analysis of generalization and empathy effects. *Journal of Pragmatics*, 1–15. <https://doi.org/10.1016/j.pragma.2014.12.009>.
- Gelfand, M. J., Nishii, L. H., & Raver, J. L. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology*, 91(6), 1225–1244.
- Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., ... Aycan, Z. (2011). Differences between tight and loose cultures: A 33-nation study. *Science*, 332(6033), 1100–1104.
- Gelman, S. A., & Roberts, S. O. (2017). How language shapes the cultural inheritance of categories. *Proceedings of the National Academy of Sciences*, 114(30), 7900–7907. <https://doi.org/10.1073/pnas.1621073114>.
- Gerber, A. S., & Rogers, T. (2009). Descriptive social norms and motivation to vote: Everybody's voting and so should you. *Journal of Politics*, 71(1), 178–191. <https://doi.org/10.1017/S0022381608090117>.
- Gockeritz, S., Schmidt, M. F. H., & Tomasello, M. (2014). Young children's creation and transmission of social norms. *Cognitive Development*, 30(1), 81–95. <https://doi.org/10.1016/j.cogdev.2014.01.003>.
- Goldstein, N. J., & Cialdini, R. B. (2007). Using social norms as a lever of social influence. In A. R. Pratkanis (Ed.). *The science of social influence: Advances and future progress* (pp. 167–192). <https://doi.org/10.4324/9780203818565>.
- Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of Consumer Research*, 35(3), 472–482. <https://doi.org/10.1086/586910>.
- Horst, J. S., & Hout, M. C. (2016). The Novel Object and Unusual Name (NOUN) Database: A collection of novel images for use in experimental research. *Behavior Research Methods*, 48(4), 1393–1409.
- Huang, M., Srioutai, J., & Greux, M. (2018). Charting the speaker-relatedness of impersonal pronouns: Contrastive evidence from English, French, and Thai. In M. Huang, & K. M. Jaszczolt (Eds.). *Expressing the self: Cultural diversity and cognitive universals* (pp. 116–142). Oxford University Press.
- Kamio, A. (2001). English generic we, you, and they: An analysis in terms of territory of information. *Journal of Pragmatics*, 33(7), 1111–1124. [https://doi.org/10.1016/S0378-2166\(00\)00052-7](https://doi.org/10.1016/S0378-2166(00)00052-7).
- Kitagawa, C., & Lehrer, A. (1990). Impersonal uses of personal pronouns. *Journal of Pragmatics*, 14(5), 739–759.
- Knobe, J., Prasada, S., & Newman, G. E. (2013). Dual character concepts and the normative dimension of conceptual representation. *Cognition*, 127(2), 242–257. <https://doi.org/10.1016/j.cognition.2013.01.005>.
- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). lmerTest package: Tests in linear mixed effects models. *Journal of Statistical Software*, 82(13).
- Laberge, S., & Sankoff, G. (1979). Anything you can do. *Economy and Society*, 29(1), 160–178.
- Leslie, S. J., & Gelman, S. A. (2012). Quantified statements are recalled as generics: Evidence from preschool children and adults. *Cognitive Psychology*, 64(3), 186–214.
- Leslie, S. J., Khemlani, S., & Glucksberg, S. (2011). Do all ducks lay eggs? The generic overgeneralization effect. *Journal of Memory and Language*, 65(1), 15–31.
- Litman, A., Ayduk, O., Moser, J., Gelman, S., & Kross, E. (2019). Linguistic shifts: A versatile crowd-sourcing data acquisition platform for the behavioral sciences. *Behavior Research Methods*, 1–10.
- Margitts, A. (2015). Person shift at narrative peak. *Language*, 91(4), 755–805.
- Noveck, I. A. (2004). Pragmatic inferences related to logical terms. In I. A. Noveck, & D. Sperber (Eds.). *Experimental pragmatics* (pp. 301–321). London: Palgrave Macmillan.
- Orvell, A., Ayduk, O., Moser, J., Gelman, S., & Kross, E. (2019). Linguistic shifts: A relatively effortless route to emotion regulation? *Current Directions in Psychological Science* (in press).
- Orvell, A., Kross, E., & Gelman, S. A. (2017). How “you” makes meaning. *Science*, 355(6331), 1299–1302. <https://doi.org/10.1126/science.aaj2014>.
- Orvell, A., Kross, E., & Gelman, S. A. (2018). That's how “you” do it: Generic you expresses norms during early childhood. *Journal of Experimental Child Psychology*, 165, 183–195. <https://doi.org/10.1016/j.jecp.2017.04.015>.
- Prasada, S., & Dillingham, E. M. (2006). Principled and statistical connections in common sense conception. *Cognition*, 99(1), 73–112. <https://doi.org/10.1016/j.cognition.2005.01.003>.
- Prasada, S., & Dillingham, E. M. (2009). Representation of principled connections: A window onto the formal aspect of common sense conception. *Cognitive Science*, 33(3), 401–448. <https://doi.org/10.1111/j.1551-6709.2009.01018.x>.
- Rakoczy, H., & Schmidt, M. F. H. (2013). The early ontogeny of social norms. *Child Development Perspectives*, 7(1), 17–21. <https://doi.org/10.1111/cdep.12010>.
- Rhodes, M., Leslie, S.-J., & Tworek, C. M. (2012). Cultural transmission of social essentialism. *Proceedings of the National Academy of Sciences*, 109(34), 13526–13531. <https://doi.org/10.1073/pnas.1208951109>.
- Roberts, S. O., Gelman, S. A., & Ho, A. K. (2017). So it is, so it shall be: Group regularities license children's prescriptive judgments. *Cognitive Science*, 41, 576–600.
- Schmidt, M. F. H., & Tomasello, M. (2012). Young children enforce social norms. *Current Directions in Psychological Science*, 21(4), 232–236. <https://doi.org/10.1177/0963721412448659>.
- Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. *Psychological Science*, 18(5), 429–434.
- Siewierska, A. (2004). *Person*. Cambridge University Press.
- Smith, J., Hogg, M., Martin, R., & Terry, D. (2007). Uncertainty and the influence of group norms in the attitude-behaviour relationship. *British Journal of Social Psychology*, 46, 769–792. [https://doi.org/10.1016/S0022-1694\(00\)00237-7](https://doi.org/10.1016/S0022-1694(00)00237-7). Inundation.
- Sripada, C., & Stich, S. (2006). A framework for the psychology of norms. In P. Carruthers, S. Laurence, & S. Stich (Eds.). *The innate mind: Culture and cognition* (pp. 280–301). New York: Oxford University Press.
- Tankard, M. E., & Paluck, E. L. (2016). Norm perception as a vehicle for social change. *The Journal of Alternative and Complementary Medicine*, 10(1), 181–211. <https://doi.org/10.1089/acm.2005.11.578>.
- Thaler, R. H., & Sunstein, C. R. (2009). *Nudge: Improving decisions about health, wealth, and happiness*. Penguin.
- Tworek, C. M., & Cimpian, A. (2016). Why do people tend to infer “ought” from “is”? The role of biases in explanation. *Psychological Science*, 27(8), 1109–1122.
- Wodak, D., Leslie, S. J., & Rhodes, M. (2015). What a loaded generalization: Generics and social cognition. *Philosophy Compass*, 10(9), 625–635. <https://doi.org/10.1111/phc3.12250>.