"You" speaks to me: Effects of generic-you in creating resonance between people and ideas

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Creating resonance between people and ideas is a central goal of communication. Historically, attempts to understand the factors that promote resonance have focused on altering the content of a message. Here we identify an additional route to evoking resonance that is embedded in the structure of language: the generic use of the word "you" (e.g., "You can't understand someone until you've walked a mile in their shoes"). Using crowd-sourced data from the Amazon Kindle application, we demonstrate that passages that people highlighted—collectively, over a quarter of a million times—were substantially more likely to contain generic-you compared to yoked passages that they did not highlight. We also demonstrate in four experiments (n = 1,900) that ideas expressed with generic-you increased resonance. These findings illustrate how a subtle shift in language establishes a powerful sense of connection between people and ideas.

language | persuasion | emotion

Consider the feeling evoked by watching a gripping scene in a film, hearing a moving song, or coming across a quotation that seems to be written just for you. Experiencing resonance, a sense of connection, is a pervasive human experience. Prior research examining the processes that promote this experience suggests that altering a message to evoke emotion (1–7), highlighting its applicability to a person's life (2, 6, 8–10), or appealing to a person's beliefs (4, 8, 11) can all contribute to an idea's resonance. Here we examine an additional route to cultivating this experience, which is grounded in a message's form rather than its content: the use of a linguistic device that frames an idea as applying broadly.

The ability to frame an idea as general rather than specific is a universal feature of language (12–15). One frequently used device is the generic usage of the pronoun "you" (15–17). Although "you" is often used to refer to a specific person or persons (e.g., "How did you get to work today?"), in many languages, it can also be used to refer to people in general (e.g., "You avoid rush hour if you can."). This general use of "you" is comparable to the more formal "one," but is used much more frequently (18).

Research indicates that people often use "you" in this way to generalize from their own experiences. For example, a person reflecting on getting fired from their job might say, "It makes you feel betrayed" (18). Here, we propose that using "you" to refer to people in general has additional social implications, affecting whether an idea evokes resonance.

Two features of the general usage of "you" (hereafter, "generic-you") motivate this hypothesis. First, generic-you conveys that ideas are generalizable. Rather than expressing information that applies to a particular situation (e.g., "Leo broke your heart"), generic-you expresses information that is timeless and applies across contexts (e.g., "Eventually, you recover from heartbreak"; 18–23). Second, generic-you is expressed with the same word ("you") that is used in nongeneric contexts to refer to the addressee. Thus, even when "you" is used generically, the association to its specific meaning may further pull in the addressee, heightening resonance. Together, these features suggest that generic-you should promote the resonance of an idea. We tested this hypothesis across five preregistered studies (24–28), using a combination of crowd-sourced data and online experimental paradigms. Data, code, and materials are publicly available via the Open Science Framework (https://osf.io/6J2ZC/) (29). Study 1 used publicly available data from the Amazon Kindle application. Studies 2–5 were approved by the University of Michigan Health Sciences and Behavioral Sciences institutional review board (IRB) under HUM00172473 and deemed exempt from ongoing IRB review. All participants who participated in studies 2–5 provided informed consent via a checkbox presented through the online survey platform, Qualtrics.

Study 1

As our starting point, we used data from the Amazon Kindle application, which allows people to highlight text on their personal device to "preserve [their] favorite concepts, topics, and insights while [they] read so [they] can revisit them later" (30). We reasoned that these highlighted passages would serve as an index of whether a passage had evoked resonance, and predicted that highlighted passages would contain higher rates of generic-you compared to a set of yoked control passages that people had not highlighted (see *Materials and Methods* section for additional details on the selection of control passages).

To test this prediction, we analyzed all 56 books (1,120 total passages) from Oprah's Book Club, a collection of highly read books, that met our preregistered inclusion criteria. Two condition-blind independent coders identified all generic uses of the word "you" in the highlighted and nonhighlighted control passages (K = 0.89). We then examined whether highlighted passages were more

Significance

Feeling resonance in response to ideas is a pervasive human experience. Previous efforts to enhance resonance have focused on changing the content of a message. Here we identify a linguistic device—the generic use of the word "you" (e.g., "You live, you learn")—that accomplishes the same goal. Using crowd-sourced data from the Amazon Kindle application, we found that generic-you was substantially more likely to appear in passages that people highlighted (vs. did not highlight) while reading. Moreover, we present the results of four experiments (n = 1,900), indicating that generic-you causally promoted resonance. These data reveal how a subtle linguistic shift can shape a pervasive human experience, promoting connection between people and ideas.

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likely than nonhighlighted control passages to contain at least one instance of generic-you, using multilevel logistic regression models that additionally controlled for passage length.

As Fig. 1 illustrates, generic-you appeared substantially more frequently in highlighted than control passages. Indeed, the odds of generic-you appearing in highlighted passages were over 12 times the odds of it appearing in nonhighlighted control passages, b = 2.55, SE = 0.27, $z = 9.54$, $P < 0.001$, 95% confidence interval (CI) [2.03, 3.08], odds ratio (OR) = 12.86.

In addition to generic-you, there are other ways in English to refer to people in general, including generic-we, generic-one, and generic uses of "people." To examine how generic-you compares to other means of referring to generic persons, we examined whether these additional generic person indicators would be more likely to appear in highlighted vs. control passages. First, as Fig. 1 illustrates, when considering all four linguistic indicators together (i.e., generic "you," "we," "one," and "people"), the odds of highlighted passages containing at least one linguistic indicator of generality were nearly 14 times the odds of at least one indicator appearing in nonhighlighted control passages, b = 2.63, SE = 0.22, $z = 12.14$, $P < 0.001$, 95% CI [2.22, 3.07], OR = 13.82. Further, the generic use of both "we" (b = 1.59, SE= 0.35, $z = 4.61$, $P < 0.001$, 95% CI [1.00, 2.32], OR = 4.91) and "people" (b = 2.75, SE = 0.61, $z = 4.54$, $P < 0.001$, 95% CI [1.73, 4.19], OR = 15.68) appeared at higher rates in highlighted (vs. nonhighlighted control) passages. However, generic-you was the most common generic indicator, appearing in 26% of highlighted passages, which was higher than the rate of generic uses of "we," "one," or "people" combined (18%), McNemar's $\chi^2 = 10.32$, $P = 0.001$. This suggests that generic-you may be a particularly accessible way to convey resonant ideas.

These analyses illustrate that generic person indicators, and especially generic-you, appeared at higher rates in resonant passages compared to passages that did not resonate with readers. As a point of contrast, we examined the presence of first-person singular pronouns (I, me, my, mine) because they convey a particular individual's perspective rather than that of a generic person. An analysis examining the rates of first-person singular pronouns revealed that they were significantly less likely to appear in highlighted (29%) passages as opposed to nonhighlighted control (44%) passages, b = −0.89, se = 0.15, z = −6.12, $P < 0.001$, 95% CI [−1.18, −0.60], OR = 0.41, further underscoring the role of generality in conveying resonant ideas.

These findings demonstrate that linguistic devices referring to people in general, and especially generic-you, were substantially more likely to appear in passages that individuals spontaneously highlighted while reading in their daily life, compared to passages that they did not highlight. This suggests that such linguistic devices may pull in the reader, evoking a sense of resonance.

Study 2

To validate that highlighting indexes resonance, we asked participants in study 2 ($n = 363$) to rate a subset of highlighted passages that contained generic-you and a subset of nonhighlighted control passages that did not contain generic-you on how much they "resonated, or had an impact on [them]" (1 - *Not at all*, 5 - *A great deal*). Generic-you was the focus because it was by far the most frequent indicator of generality observed in study 1. As predicted, participants indicated that highlighted passages with generic-you ($M = 2.88$, SE = 0.06) resonated with them more strongly than control passages ($M = 2.14$, SE = 0.07), b = 0.79, SE = 0.07, $t(145) = 10.87$, $P < 0.001$, 95% CI [0.65, 0.93].

The results so far identify a linguistic index that reliably appears in passages that resonate with readers as they read novels in their daily lives. However, it is unclear whether generic-you actually enhances the resonance of a message, as hypothesized. An alternative explanation is that generic-you cooccurs with the expression of ideas that are particularly resonant, but does not play a causal role in enhancing resonance. Like a fever that correlates with the presence of an illness but does not cause it, it is possible that people are more likely to use generic-you when they are communicating information that other people connect with, but that doing so has no effect on the perceived resonance of the message. This possibility is tested in studies 3–5.

Study 3

To determine whether generic-you enhances resonance, study 3 manipulated whether the highlighted literary passages from study 2 were expressed with generic-you or with first-person singular pronouns (e.g., "If you waited till everything was perfect to celebrate, you might never celebrate anything" vs. "If I waited till everything was perfect to celebrate, I might never celebrate anything"). We then asked a new set of participants ($n = 300$) to rate each passage on resonance, using a repeated-measures, within-subjects design. As predicted, participants indicated that passages expressed with generic-you ($M = 2.63$, SE = 0.07) vs. first-person singular pronouns ($M = 2.56$, SE = 0.07) resonated with them more strongly, b = 0.09, SE = 0.03, $t(5,040) = 2.99$, $P = 0.003$, 95% CI [0.03, 0.14].

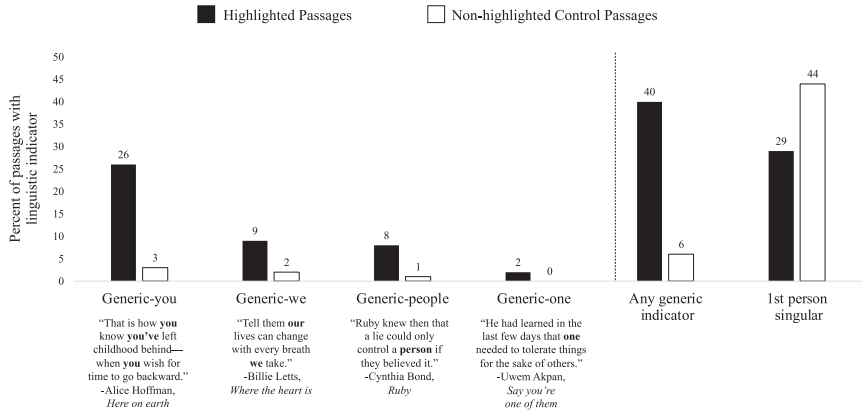

Fig. 1. Presence of different linguistic indicators in highlighted vs. nonhighlighted control passages. The figure depicts the percent of highlighted and nonhighlighted control passages that contained at least one instance of generic-you, generic-we, generic-people, and generic-one. "Any generic indicator" depicts the percent of highlighted vs. nonhighlighted control passages that contained at least one of these linguistic indicators of generality. The figure also depicts the percent of highlighted and nonhighlighted control passages with first-person singular pronouns as a point of contrast. Note that frequency of generic- one was very low, limiting the appropriateness of an inferential statistical test.

Study 4

Study 4 was designed as a replication of study 3, but using standalone statements that we created (e.g., "Sometimes, you have to take a step back before you can take a step forward" vs. "Sometimes, I have to take a step back before I can take a step forward") rather than passages excerpted from literary novels. This allowed for tighter experimental control because the statements were constructed as entirely independent, rather than taken out of context from a novel. The statements were designed to express ideas that were expected to resonate with people, providing a more conservative test of whether generic-you enhances resonance. Using a repeated-measures, within-subjects design, participants (n = 199) rated how much each statement resonated with them. As predicted, statements resonated with participants more when expressed with generic-you (M = 2.94, SE = 0.10) than when expressed with first-person singular pronouns (M = 2.86, SE = 0.10), b = 0.08, SE = 0.03, $t(3{,}761)$ = 2.29, P = 0.022, 95% CI [0.01, 0.14].

Studies 3 and 4 demonstrate that generic-you enhanced the resonance of an idea relative to when it was expressed with first-person singular pronouns. However, generic-you differs from "I" in two key respects: not only is it more general, but it may also pull in the reader, by virtue of using a word that typically refers to the addressee (i.e., you). Study 5 was designed to determine whether the resonant force of generic-you arises purely from its generalizing meaning, or its generalizing meaning and its more direct relevance to the reader.

Study 5

To differentiate among these possibilities, we asked participants to rate statements including not just generic-you and "I," but also statements including generic-people. That is, study 5 included the matched generic-you and "I" statements from study 4 (e.g., "Sometimes, you have to take a step back before you can take a step forward"; "Sometimes I have to take a step back before I can take a step forward"), as well as matched statements with generic-people (e.g., "Sometimes, people have to take a step back before they can take a step forward"). To maintain consistency with study 4, each participant received only two types of wording. This yielded three between-subject groups (and thus, three pairs of means): generic-you vs. "I" (as in study 4; n = 346), generic-you vs. generic-people (new to study 5; n = 345), and generic-people vs. "I" (new to study 5; n = 347). Participants rated the same 20 statements used in study 4, but with slight modifications to render the statements maximally parallel across conditions.

There were two possibilities 1): If generic-you enhances resonance exclusively because it expresses information that is generalizable, then ideas expressed with generic-you and generic-people will be equally resonant to one another, but more resonant than those expressed with "I." 2) If generic-you enhances resonance because it expresses information that is general, but also because it pulls in the addressee by means of the word "you," then ideas expressed with generic-you will be most resonant, followed by those expressed with generic-people, followed by those expressed with "I."

We began by testing the first possibility—that generic-you enhances resonance solely because it is generalizable—by examining the resonance ratings for people in the generic-you vs. generic-people group (a within-subject comparison). Generic-you (M = 3.04, SE = 0.10) increased resonance relative to generic-people (M = 2.95, SE = 0.10), b = 0.09, SE = 0.03, $t(343)$ = 3.20, P = 0.002, 95% CI [0.034, 0.142], indicating that generality alone does not explain the resonant force of generic-you.

Next, we examined the second possibility—that generic-you enhances resonance because it expresses general information and pulls in the addressee. The finding that generic-you was more resonant than generic-people lends support to this possibility. We proceeded to continue testing the second possibility by comparing the second within-subject contrast, generic-you vs. "I." Replicating our findings from studies 3 and 4, generic-you (M = 2.99, SE = 0.10) increased resonance relative to "I" (M = 2.91, SE = 0.10), b = 0.08, SE = 0.03, $t(344)$ = 2.57, P = 0.011, 95% CI [0.018, 0.133]. Finally, the last within-subject contrast revealed that there was also a tendency for statements with generic-people (M = 2.95, SE = 0.11) to be rated as somewhat more resonant than those with "I" (M = 2.91, SE = 0.11), although this did not reach statistical significance, b = 0.05, SE = 0.03, $t(6573)$ = 1.80, P = 0.072, 95% CI [−0.004, 0.095].

Collectively, these findings support the idea that generic-you enhances resonance both because of its capacity to generalize and its ability to pull in the reader.

Discussion

Achieving resonance with others' ideas is a central goal of human communication. Whereas past approaches to understanding this phenomenon have focused on how to increase resonance by altering the content of the message itself, here we demonstrate that this can be accomplished by leveraging how an idea is expressed. Specifically, a subtle linguistic device that frames an idea as applying to people in general, rather than to a specific person or moment, was associated with enhanced feelings of resonance in both naturally observed and experimental contexts.

It is noteworthy that the data from study 1 captured how people spontaneously reacted to passages that "spoke to them" as they read novels in their daily lives. The magnitude of this effect was striking—generic-you appeared in 26% of highlighted passages compared to just 3% of nonhighlighted control passages, and 40% of highlighted passages contained at least one indicator of generic persons compared to 6% of nonhighlighted control passages. Further, these data were compiled from a broad array of widely read books: while the television show "Oprah" was on-air, 59 of the 70 books selected for Oprah's Book Club made USA Today's Top 10 best seller list, and roughly 22 million copies of book club editions were sold within a 10-year period (31), suggesting that Kindle readers of these books reflect a broad range of individuals. These data thus capture an elemental relation between language use and resonance, providing a window into how subtle shifts in language influence how information is filtered as people spontaneously navigate the world around them.

The findings from study 1 also suggest that people may gravitate toward generic language to express resonant ideas. Additionally, the results from studies 3–5 suggest that generic-you provides an additional small but reliable "nudge," which enhances the resonance of a message above and beyond the content being expressed.

Together, these data suggest that the generic use of "you" is an effective lever for promoting resonance between people and ideas. It is possible that by referring to people in general—by means of the same word typically used to refer to the addressee—generic-you invites the addressee to take a sentiment that is situated in a specific context and consider how it may apply to them (18, 32, 33). This highlights how the architecture of language is structured to allow ideas to become portable, traversing specific moments in time to convey broadly relevant experiences. Taken together, the findings from the current studies demonstrate how a linguistic device that is often hidden in plain sight can create a meaningful sense of connection between people and ideas.

Materials and Methods

Study 1.

Method.

Novel selection. Our sample consisted of all books that were selected for Oprah's Book Club between the years 1996 and 2018, so long as they were: adult fiction, written after 1900, originally written in English, and had "Popular Highlights" available. Books also needed to be available through the Amazon Kindle application. We reasoned that these books would provide a sample of fiction that had been widely read by the general public. This yielded a sample of 56 books written by 46 authors (*SI Appendix*, Table S3).*

Selection of control passages. To test our hypothesis that generic person indicators (i.e., generic "you," "we," "one," and "people") would be more likely to appear in highlighted passages compared to other parts of the book that readers had not highlighted, we identified a set of control passages, which readers had not highlighted while reading. In selecting the control passages, we took several considerations into account: First, we wanted to ensure independence between highlighted and control passages (that is, writers may have been building toward a generalization or insight, and thus the sentence immediately preceding a highlighted passage may have been less likely to contain a generic person reference). Second, given that some readers may have stopped reading a book at any point after starting, we wanted to ensure to the extent possible that people had read the selected control passages (which would mean that they would have had equal opportunity to highlight them). To meet these considerations, we selected yoked control passages (method for selection described below). Control passages were matched to highlighted passages in number of sentences; word count was included as a fixed effect in all analyses, as sentence length varied.

Data collection. Data were collected from the Amazon Kindle desktop application using downloaded e-book editions of the selected novels. The method for selecting highlighted and control passages was devised a priori and was preregistered (24). Trained research assistants first synchronized their viewing settings through the Amazon Kindle desktop application to portrait mode; font size was left as the default setting upon the e-book download. Research assistants then enabled the Popular Highlights feature, allowing them to view highlighted passages.

Each highlighted passage was copied and pasted into a spreadsheet for subsequent use. In addition to the highlighted passage, all other text on the screen was copied and pasted so that human coders had additional contextual information to use when determining whether a given indicator was generic. If the highlighted passages spanned two pages, approximately half the text on each page preceding and following the passage was selected for context.

To select yoked control passages, research assistants navigated from the Popular Highlights window to each highlighted passage in the text. They then navigated two screens back in the text and found the start of the third complete sentence on the screen to mark the beginning of the control passage. If the third available sentence was also highlighted, research assistants began with the start of the next sentence. They then selected control text that was matched in the number of sentences to the yoked highlighted passage. The third sentence on the screen was chosen as a starting point to allow for sufficient surrounding context, and they navigated two screens back to ensure that the control content had been read, and thus had an equal opportunity to be highlighted.

Several exceptions were built into the instructions to account for unusual scenarios. First, if a highlighted passage included an incomplete sentence, research assistants were instructed to treat it as a full sentence when selecting the yoked control passage. For example, the following highlighted passage led to the selection of a two-sentence-long control passage: "... on the bright and sunny day. They hadn't enjoyed themselves like this for many years." Second, if there were two highlighted passages on a given page, the control passages had the same number of sentences separating them as the two highlighted passages did. Third, if the highlighted passage was located within the first two screens of the book, the control passage was selected by navigating two screens later; this only occurred with four sets of highlighted and control passages, all from the same book.

Researchers collected additional context for each control passage following the same method described for the highlighted passages.

In addition to collecting the passages and their surrounding context, the following information was recorded for each passage: 1) Date the e-book was downloaded to the Kindle library and date that highlights were recorded (given that the Popular Highlights may change over time depending on Amazon's method for selection); 2) Passage location provided by Amazon (for control and highlighted passages); 3) Number of highlights (for highlighted passages only); 4) Number of sentences; 5) Number of words [determined by Linguistic Inquiry and Word Count (2015; LIWC) for control and highlighted passages; 34].

The full set of passages included in this study is available via the Open Science Framework (https://osf.io/6J2ZC/).

Text analysis and coding. All passages were run through LIWC 2015. Given the high volume of passages, we created four subsets of passages for human coding: 1) Passages identified as containing the word "you" (including all variants such as "your," "you'll," etc.); 2) Passages identified as containing the word "we" (including all variants such as "our," "us," etc.); 3) Passages identified as containing the word "one" (including variants such as "one's"); 4) Passages identified as containing the word "people" (including "person" and "persons"; identified through a custom dictionary). Coders used these subsets of data when determining which uses of each indicator were generic.†

Two condition-blind coders coded all passages that contained the word "you" to determine whether each use of "you" in a given passage was generic or not, following prior methods (18). Given the restricted range of generic-yous in each passage ($M = 0.37$, range: 0–11, mode: 1), we created a categorical variable indicating presence vs. absence of generic-you in a passage. Reliability between coders was excellent, $K = 0.89$. Discrepancies were resolved by an independent coder.

A different set of two condition-blind coders identified all generic instances of "we," "people," and "one." These coders trained on 20% of the data, given that separate practice datasets with generic "we," "people," and "one" were not available. Similar to the frequency of generic-you, the ranges of generic "we" ($M = 0.11$, range: 0–7, mode: 1), "one" ($M = 0.01$, range: 0–2, mode: 1), and "people" ($M = 0.05$, range: 0–4, mode: 1) were restricted, so we created categorical variables indicating presence vs. absence of each of these indicators. Reliability for the 80% of the data that the coders independently coded was good (overall $K = 0.77$; $K_{We} = 0.75$, $K_{One,} = 0.94$, $K_{people} = 0.61$). Disagreements were resolved through discussion.

Statistical analysis.

Analytic approach. Our general approach for all studies was to use multilevel models, which consider hierarchically structured data (e.g., passages nested within books) and random effects. All analyses were conducted using R's lme4 package (35). We began by attempting to run the model proposed in our preregistration document. If models did not converge, we removed random effect terms that contributed little variance to simplify the models and improve likelihood of convergence (for discussion, see 36).

Primary analyses. We preregistered two primary analyses for study 1. First, we planned to examine the effect of condition (highlighted passages vs. nonhighlighted control passages) on the presence (vs. absence) of generic-you. Second, we planned to examine the effect of condition (highlighted passages vs. nonhighlighted control passages) on the presence (vs. absence) of at least one of the indices of generality that we coded for (i.e., generic-you, generic-we, generic-people, and generic-one).

To examine these questions, we conducted multilevel logistic regression models. In both models, condition (highlighted passages vs. nonhighlighted control passages) was entered as a fixed effect. The number of words in each passage (i.e., word count, mean centered) was also entered as a fixed effect to control for the role of passage length on the presence or absence of the linguistic indicators of interest (although yoked passages were matched on sentence length, word count could still vary between the yoked control and highlighted passages). The models also included the interaction between condition and word count. Both models also included "book" as a random effect with random intercepts. Although our preregistration additionally specified including "passage" as a random effect, model fit was singular, so passage was dropped as a random effect (additionally, inspection of a model that only included passage as a random effect revealed that it contributed little variance—i.e., 0.08).

We report the fixed effect of condition from the models in the main text; below in Table 1, we report all fixed and random effects.

*A Million Little Pieces by James Frey was excluded, as it was originally published as a (nonfictional) memoir. Oprah also revoked the book's status as a book club selection.

†11.6% ($n = 130$) of the passages were corrected to account for a human error that occurred when determining sentence length based on punctuation. Of these 130 passages, 14 (1.3% of total sample) were recoded by an expert coder (because "you," "we," "one," or "people" was either removed or added to the corrected passage).

Table 1. Multilevel models examining the fixed effects of condition (highlighted passages vs. nonhighlighted control passages) and word count on presence (vs. absence) of linguistic indicators of generality and first-person singular pronouns in study 1

	Fixed effects						Random effects	
	b	SE	*z*	*P*	95% CI	OR	Variance	SD
Generic-you								
Condition	2.55	0.268	9.54	<0.001	2.05, 3.12	12.86	—	—
Word count	0.01	0.003	2.79	0.005	0.002, 0.015	1.01	—	—
Condition × word count	0.01	0.006	1.15	0.249	−0.005, 0.020	1.01	—	—
Book	—	—	—	—	—	—	0.80	0.90
Generic-we								
Condition	1.59	0.346	4.61	<0.001	1.00, 2.32	4.91	—	—
Word count	0.01	0.004	2.23	0.026	0.001, 0.017	1.01	—	—
Condition × word count	0.00	0.008	0.49	0.625	−0.012, 0.020	1.00	—	—
Book	—	—	—	—	—	—	0.98	0.99
Generic-people								
Condition	2.75	0.606	4.54	<0.001	1.73, 4.19	15.68	—	—
Word count	0.01	0.005	1.32	0.188	−0.011, 0.015	1.01	—	—
Condition × word count	0.01	0.011	0.52	0.604	−0.012, 0.042	1.01	—	—
Book	—	—	—	—	—	—	0.00	0.00
Any indicator of generality								
Condition	2.63	0.216	12.14	<0.001	2.22, 3.07	13.82	—	—
Word count	0.01	0.003	3.19	0.001	0.003, 0.015	1.01	—	—
Condition × word count	0.00	0.006	0.74	0.457	−0.007, 0.015	1.00	—	—
Book	—	—	—	—	—	—	0.46	0.68
First-person singular pronouns								
Condition	−1.18	0.145	−6.12	<0.001	−1.18, −0.603	0.41	—	—
Word count	0.01	0.003	4.94	<0.001	0.009, 0.021	1.01	—	—
Condition × word count	0.02	0.006	2.73	0.006	0.004, 0.027	1.02	—	—
Book	—	—	—	—	—	—	1.41	1.19

Tables 1–3 list fixed effects terms in regular text and random effects terms in italicized text.

Study 2.

Method.

Participants. Participants were 382 individuals recruited from TurkPrime (37). Seven individuals were screened out for not being native English speakers. Nine individuals dropped out nearly immediately or did not provide consent, and an additional three participants were excluded for completing fewer than 90% of the trials. This left a sample of 363 participants (M_{age} = 38.36, SD = 11.28; 155 female, 70% White, 15% Black, 6% Asian, 5% Hispanic, 4% identifying with other races/ethnicities, or preferring not to respond).[‡]

Stimuli. Stimuli consisted of all passages from study 1 that contained generic-you and were one sentence in length (n = 55) as well as their yoked control passages (n = 55). See *SI Appendix*, Table S4 for all passages. We restricted our stimuli to passages that contained generic-you because it was by far the most commonly observed generic person reference in study 1. We restricted the stimuli to passages that were one sentence in length to reduce the burden on participants who would be reading each passage.

Design. We used a within-subjects, repeated-measures design. Each participant read 11 highlighted passages and 11 nonhighlighted control passages. As a between-subjects factor, participants were randomly assigned to receive one of five batches of passages. Batches were constructed by randomly dividing the 110 passages into five groups, each containing an equal number of control and highlighted passages. Highlighted and yoked control passages could be spread across different batches, and all passages were presented in random order.

Procedure. After providing consent and indicating that they were native English speakers, participants began the main task. They were presented with the following text to introduce the purpose of the study and the concept of resonance: "We're interested in gathering a database of meaningful quotes. When reading each passage, rate to what extent it resonates or has an impact on you." Participants were then presented with 22 highlighted and nonhighlighted control passages, in random order. Only one passage was presented per screen. For each passage, participants responded to the question: "How much does this passage resonate with you?" (1, Not at all; 2, A little; 3, A moderate amount; 4, A lot; 5, A great deal; M = 2.50, SD = 1.37). After completing the main task, participants answered demographics questions.

Statistical analysis.

Primary analysis. Multilevel analyses were conducted using R's lme4 package to examine the effect of condition (highlighted vs. nonhighlighted control passages) on resonance ratings. Our preregistration specified a complex model that accounted for all potential random effects; however, initial attempts to fit this model revealed that fit was singular. Removing batch and retaining book allowed for model convergence, but inspection of the random effects revealed that book was contributing very little variance (0.04); hence, we removed both batch and book as random effects to allow for the most parsimonious model. Notably, however, all model variations revealed a significant main effect of condition.

The final model included condition (highlighted vs. nonhighlighted control), the number of words in each passage (i.e., word count, to control for the role of passage length on resonance ratings), and the interaction between condition and word count. We included passage as a random effect with random intercepts; participant was also included as a random effect, and initial tests confirmed that allowing for random slopes at the participant level for the effect of condition improved model fit (χ^2 = 329.69, P < 0.001). The fixed effect of condition from this model is reported in the main text; all additional fixed and random effects are reported below, in Table 2. As indicated below, the interaction between condition and word count was significant, such that resonance ratings decreased slightly for highlighted passages as the number of words increased.

Study 3.

Method.

Participants. Participants were 318 individuals recruited from TurkPrime. Three individuals were screened out for not being native English speakers. Eight individuals dropped out nearly immediately or were excluded on the basis of having duplicate internet protocol (IP) addresses and suspicious

[‡]Note that only the preregistration for study 4 specified that participants would respond to fewer than 90% of the trials would be excluded; we applied this criterion to studies 2 and 3 for consistency. All main effects remain when this exclusion criterion is not applied.

Table 2. Multilevel model examining the effect of condition (highlighted vs. nonhighlighted control passage) on resonance ratings in study 2

	Fixed effects						Random effects	
	b	SE	*df*	*t*	*P*	95% CI	Variance	SD
Condition	0.79	0.073	145	10.87	<0.001	0.648, 0.930	—	—
Word count	−0.01	0.003	108	−2.79	0.006	−0.014, −0.003	—	—
Condition × word count	−0.02	0.006	107	−3.58	<0.001	−0.033, −0.010	—	—
Participant								
Intercept	—	—	—	—	—	—	0.70	0.84
Condition	—	—	—	—	—	—	0.32	0.56
Passage	—	—	—	—	—	—	0.10	0.32

df, degrees of freedom.

responses. An additional seven participants were excluded who completed fewer than 90% of the trials. This left a sample of 300 participants (M_{age} = 35.61, SD = 10.72; 118 female, 70% White, 11% Black, 5% Asian, 5% Hispanic, 9% identifying with other races/ethnicities, or preferring not to respond).

Stimuli. Stimuli consisted of the one-sentence highlighted, generic-you passages used in study 2, except that we also created an alternative version of each passage that contained first-person singular pronouns instead of generic-you pronouns.[§] Fifteen (i.e., 28%) of the passages were altered to ensure that the first-person singular passages were clear and to make the manipulation maximally clean. See *SI Appendix*, Table S5 for all passages. A detailed description of situations that precipitated altering the passages is contained in the preregistration document (26).

Design. The 54 passages were divided into three batches of 18 that were roughly matched on the resonance ratings collected in study 2. That is, we created three tertiles from the 54 passages that ordered them in terms of how resonant they were judged to be by participants in study 2 (lowest tertile: M = 2.43, SD = 0.19; middle tertile: M = 2.84, SD = 0.11; highest tertile: M = 3.31, SD = 0.27). We then randomly assigned passages within each tertile to one of three batches; this ensured that passages across the three batches were matched in terms of how resonant they were. Finally, within each batch, we created an "A" version and a "B" version, which counterbalanced whether a given passage was presented with generic-you vs. first-person singular pronouns (hereafter, sometimes referred to as "I" versions, for short). This ensured that generic-you and I versions of the passages were presented equally across participants. Altogether, then, there were six sets of passages.

As a between-subjects factor, we randomly assigned participants to receive one of the six batches of passages. Each participant rated 18 passages total (half containing generic-you and half containing first-person singular pronouns) on resonance using the same measure described in study 2. Passages were presented in random order.

Statistical analysis.

Preliminary analyses. Multilevel analyses, which allowed us to consider the hierarchical structure of the data, were conducted using R's lme4 package to examine the effect of condition (generic-you passages vs. "I" passages) on resonance ratings. Our preregistration proposed a preliminary examination of whether the counterbalanced version of passages (i.e., whether a given passage was presented with first-person singular pronouns vs. generic-you pronouns) affected resonance ratings. However, we subsequently realized that this counterbalancing was nested within each of the three batches of passages. Thus, we examined the counterbalanced factor of passage version as a random effect instead, nested within the three distinct batches of passages. The fullest model with all random effects included yielded singular fit. Subsequent inspection of the random effects revealed that book was explaining very little variance, as were batch passage version. Thus, these random effect terms were removed. Given that our design ensured that each batch of passages had an equal distribution of passages that varied in resonance ratings and that our model still included the random effect of passage (to account for stimulus-level variability), we deemed this appropriate both theoretically and analytically.

Next, we examined whether including random slopes for the effect of condition at the participant level improved model fit; it did not (χ^2 = 1.03, P = 0.597), so only intercepts were allowed to vary. Thus, our final model included condition, word count, and their interaction as fixed effects. Passage number and participant were entered as random effects with random intercepts.

Once this model was determined, we proceeded to conduct one preliminary analysis (as outlined in our preregistration) to examine whether altering a given passage was associated with increased or decreased resonance ratings. Condition (generic-you passage vs. "I" passage) and whether a passage was altered were entered as fixed effects; the interaction between these two terms was also included in the model. As outlined in the paragraph above, passage number and participant were entered as random effects with random intercepts. When including whether the passage was altered in the model, the effect of condition was in the expected direction, b = 0.06, P = 0.055, but whether a passage was altered did not affect resonance ratings, b = −0.17, P = 0.164. Importantly, condition did not interact with whether a passage was altered to affect resonance ratings, b = −0.11, P = 0.096; thus, this factor was not considered in subsequent models.

Primary analysis. The fixed effect of condition on resonance ratings from this model is reported in the main text; Table 3 reports all fixed and random effects from the model.

Study 4.

Method.

Participants. Participants were 206 individuals recruited from TurkPrime. One individual was screened out for not being a native English speaker. Five individuals dropped out nearly immediately, and an additional participant was excluded for responding to fewer than 90% of the trials. This left a sample of 199 participants (M_{age} = 35.77, SD = 11.30; 90 female, 76% White, 9% Black, 6% Asian, 5% Hispanic, 4% identifying with other races/ethnicities, or preferring not to respond).

Stimuli. Stimuli consisted of 20 one-sentence statements that we created. Each statement contained a generic-you version and a first-person singular pronoun version. See *SI Appendix*, Table S6 for all passages.

Design. As a between-subjects factor, we counterbalanced which statements were presented with generic-you vs. "I" (by creating a set A and a set B version of the stimuli); thus, as in study 3, each passage was equally presented with both linguistic frames across participants. Each participant saw 10 passages expressed with generic-you and 10 expressed with "I," in random order. After each passage was presented, participants were asked to rate the extent to which it resonated with them, with the same question used in studies 2 and 3, except rather than asking participants to rate each passage we asked them to rate each "statement."

Statistical analysis.

Preliminary analyses. Multilevel analyses, which allowed us to consider the hierarchical structure of the data, were conducted using R's lme4 package to examine the effect of condition (generic-you passage vs. first-person singular pronoun passage) on resonance ratings. We conducted one preliminary analysis, as outlined in our preregistration. Specifically, we tested whether set (i.e., which particular passages were assigned to generic-you vs. "I") affected resonance ratings. It did not (b = −0.08, P = 0.345), so this term was not considered further.

Including random slopes for the effect of condition at the participant level did not improve model fit (χ^2 = 4.27, P = 0.118), so only intercepts were allowed to vary. The final model thus included the fixed effect of condition and random intercepts for passage and participant.

Primary analysis. The fixed effect of condition on resonance ratings from this model is reported in the main text; Table 3 reports all fixed and random effects from the model.

[§]We excluded one passage used in study 2, which contained generic "thee" rather than generic-you, yielding 54 passages total.

Table 3. Multilevel model examining the effect of condition (i.e., linguistic contrast) on resonance ratings in Studies 3, 4 and 5

	Fixed effects						Random effects	
	b	SE	*df*	*t*	*P*	95% CI	Variance	SD
Study 3								
Condition	0.09	0.029	5040	2.99	0.003	0.030, 0.142	—	—
Word count	−1.41	0.005	52	−2.81	0.007	−0.024, −0.004	—	—
Condition × word count	−0.005	0.003	5182	−1.61	0.108	−0.010, 0.001	—	—
Participant	—	—	—	—	—	—	0.59	0.77
Passage	—	—	—	—	—	—	0.14	0.37
Study 4								
Condition	0.08	0.034	3761	2.29	0.022	0.011, 0.143	—	—
Participant	—	—	—	—	—	—	0.34	0.58
Passage	—	—	—	—	—	—	0.15	0.39
Study 5								
You vs. I								
Condition	0.08	0.029	344	2.57	0.011	0.018, 0.133	—	—
Participant								
Intercept	—	—	—	—	—	—	0.43	0.66
Condition	—	—	—	—	—	—	0.08	0.28
Passage	—	—	—	—	—	—	0.17	0.41
You vs. People								
Condition	0.09	0.027	343	3.20	0.002	0.034, 0.142	—	—
Participant								
Intercept	—	—	—	—	—	—	0.44	0.67
Condition	—	—	—	—	—	—	0.05	0.21
Passage	—	—	—	—	—	—	0.18	0.42
People vs. I								
Condition	0.05	0.025	6573	1.80	0.072	−0.004, 0.095	—	—
Participant	—	—	—	—	—	—	0.38	0.62
Passage	—	—	—	—	—	—	0.20	0.44

In studies 3, 4, and the "People vs. I" contrast in study 5, random slopes for the effect of condition at the participant level were not allowed to vary, explaining variation in degrees of freedom.

Study 5.

Method.

Participants. Participants were 1,074 individuals recruited from TurkPrime. Sixteen individuals were screened out for not being native English speakers. Thirteen individuals dropped out nearly immediately, an additional six participants were excluded for responding to fewer than 90% of the trials, and one was excluded because of a duplicate IP address. This left a sample of 1,038 participants (M_{age} = 38.99, SD = 12.67; 519 female, 74% White, 9% Black, 7% Asian, 5% Hispanic, 5% identifying with other races/ethnicities, or preferring not to respond).

Stimuli. Stimuli consisted of the 20 one-sentence statements used in study 4, with slight alterations to make them parallel across conditions. Each statement contained a generic-you version, a generic-people version, and a first-person singular pronoun version ("I" version). See *SI Appendix*, Table S6 for all passages.

Design. The design was identical to study 4 with one exception: Participants were randomly assigned to receive statements with one of three sets of linguistic contrasts: generic-you vs. generic-people (n = 345), generic-you vs. "I" (n = 346), or generic-people vs. "I" (n = 347).

Statistical analysis.

Preliminary analyses. Multilevel analyses, which allowed us to consider the hierarchical structure of the data, were conducted using R's lme4 package to examine the effect of condition (i.e., each linguistic contrast) on resonance ratings. In all models, passage and participant were entered as random effects. For the models testing the contrast between generic-you vs. "I" and generic-you vs. generic-people, including random slopes for condition at the participant level significantly improved model fit (generic-you vs. generic-people: $\chi^2 = 6.36$, $P = 0.041$; generic-you vs. I: $\chi^2 = 22.22$, $P < 0.001$); for the model testing the contrast between generic-people and "I," including random slopes for condition at the participant level did not significantly improve model fit ($\chi^2 = 2.66$, $P = 0.265$), so only random intercepts for participant were included.

Next, we conducted one preliminary analysis for each linguistic contrast, as outlined in our preregistration. Specifically, we tested whether set (i.e., which passages were assigned to be presented with certain wording, e.g., generic-you vs. "I") affected resonance ratings. It did not for any of the linguistic contrasts (generic-you vs. generic-people effect of set: b = −0.07, $P = 0.339$; generic-you vs. "I" effect of set: b = 0.02, $P = 0.774$; generic-people vs. "I" effect of set: b = 0.01, $P = .847$), so this term was not considered further in any of the models.

Primary analyses. The fixed effect of condition on resonance ratings from these models is reported in the main text; Table 3 reports all fixed and random effects from the model.

Data Availability. Data, code, and materials, including the passages analyzed in study 1, are publicly available via the Open Science Framework (https://osf.io/6J2ZC/). Stimuli for studies 2–5 are also available in *SI Appendix*, Tables S4–S6.

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