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Title

Finding relevance in the news: The scale of self-reference

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Data Availability Statement

The dataset used for this paper is publicly available on our website (<https://knology.org/article/data-set-the-relevance-of-news-stories/>) and cited in the bibliography as Knology (2020).

Abstract

According to both professional journalists and news users, news should be *relevant*. While a great deal of research that treats relevance as co-constructed starts from the text of news stories, this paper asks how *news users* explicitly construct the (ir)relevance of particular news reports, taking a language-centered lens to open-ended survey responses.

This paper makes a methodological argument in favor of a language-centered approach to open-ended survey data. Given the ubiquity of online surveys in many social science disciplines, the present paper provides an example of how this approach can deepen our understanding of survey responses.

We find that news users construct relevance at varying scales, using a number of linguistic strategies of self-reference. Those who said they found the story they saw relevant used pronouns with a different distribution than those who did not, and these differences exceeded chance. In general, those who referred to themselves as members of larger collectivities were more likely to say they found a news story relevant, suggesting that relevance is discursively constructed in part through practices of self-reference.

Keywords

News talk, self-reference, pronouns, relevance, collective identity, person reference

1 Introduction

How do news users evaluate whether stories are *relevant* to them? Both professional journalists¹ and news users understand *relevance* as a core news value, but in different ways. For journalists, relevance is one news value among many (but see Bednarek, 2016, for a critique of this use); for news users, relevance is one of the most important news values, if not the single most important one. Lee and Chyi (2014) posit *relevance* and *interestingness* as the two key elements in audience judgments of *noteworthiness*, which they contrast with editorial judgments of *newsworthiness*. Similarly, professionals focus primarily on relevance to the community of coverage, that is, people who live where they report (Cotter, 2010). Meanwhile, news users want journalists to express an explicit rationale for relevance (Heikkilä and Ahva, 2015; Heikkilä et al., 2010).

Earlier studies have explored headlines from the perspective of relevance theory. Dor (2003) found that headline writers try to optimize relevance, in its technical meaning. Ifantidou (2009) complicates this picture by showing that readers do not orient to journalists' norms regarding headlines. We differ from these studies in two key regards. First, we are interested in judgments about the full news story rather than the headline, as a larger natural unit of news. Second, we use *relevance* to refer to a value articulated by both journalists and news users, not in the technical sense associated with relevance theory.

2 Theoretical Background

2.1 Conceptions of Relevance

Relevance is a thorny term, in part because our work sits at the intersection of fields that define it quite differently from one another. Within pragmatics proper, the most influential is likely relevance theory (Sperber & Wilson, 1986; Wilson & Sperber, 2006). Building on Grice's (1975) terse maxim "be relevant," relevance theory defines a relevant input as one that provides "a worthwhile difference to the individual's representation of the world" (Wilson & Sperber, 2006, p. 608). Roughly, relevance is a trade-off between maximizing new information while minimizing processing effort. Crucially, relevance is always comparative rather than absolute in this view: people pay attention to what is most relevant at any given time.

Meanwhile, the linguistic literature on news values (e.g. Bell, 1991; Cotter, 2010; van Dijk, 1988) has largely included *relevance* as one value among many. In a summary of linguists' treatment of news values, Bednarek (2016) notes that those scholars who include *relevance* have often provided somewhat vague definitions, and largely subsumes this value within the category of impact (see also Bednarek & Caple, 2017). While we agree with Bednarek's critique of vagueness, we note that *impact* obscures important questions of positionality that other linguists have raised. That is, relevance to whom? Cotter (2010, p. 168) observes that the use of second-person pronouns can limit relevance rather than expanding it, and van Dijk (1988) takes a critical approach by raising questions of power. As van Dijk notes, "relevance must be defined in terms of large or powerful groups. ... Second, relevance is also determined by the interests of those in control of the social system" (van Dijk, 1988, p. 122).

Within the journalism literature, Lee and Chyi (2014) provide a much-needed perspective shift from journalists' assumptions about news users to the perspectives of

¹ We prefer *news users* to *audiences* to highlight the diversity of ways people engage with news (cf. Picone, 2016), but we use *audience* when referring to literature that uses this term. We use *journalist* throughout this paper as an umbrella term encompassing specific roles within the news team, such as reporters, editors, and producers.

those news users themselves. They challenge researchers who take the importance of news for granted, writing that “news is often studied as *is* and presumed to be innately of value. But news is a product and the decline in demand should be studied from the audience’s perspective” (Lee & Chyi, 2014, p. 808). Contrasting journalists’ sense of *newsworthiness* with an audience perspective on *noteworthiness*, they break down audience concerns into two dimensions: *relevance* and *interestingness*. However, they do not attempt to define either term but start from common-sense understanding of these terms.

We are not the first to bring these two definitions into conversation. Dor (2003, p. 702) cautions that the “technical notion of relevance should not be equated with relevance in the ordinary sense of the word. Relevance in this ordinary sense may be thought of as the measurement of the association, or congruence, between some content and its context of interpretation. Thus, a news story will be relevant in this sense to the extent that it is about those issues which are directly related to the readers’ lives and interests. Indeed, relevance in this sense may play a role in news value judgments.” It is precisely because the term *relevance* is so widely used – and because a news report can be relevant in one sense but not the other – that we focused on how news users understand this term.

2.2 Relevance as Discursively Co-Constructed

We start from the premise that relevance is co-constructed by journalists and news users (Cotter, 2010, ch. 6). Journalists may frame stories to highlight their relevance to some particular audience, and news users may make additional personal connections that are not explicit in the story, or that emerge only in talk with others. Previous research has explored the linguistic resources that *journalists* use to communicate the relevance of stories, as well as news values more generally. For example, Spitulnik Vidali (2010) observes that news media project the ‘generic personhood’ of viewers through pronouns, participation structures, and normative ideologies of sincerity, and Molek-Kozakowska (2016: 5) reminds us that ‘events are not always intrinsically newsworthy, but can be constructed as newsworthy with specific application of images and linguistic devices.’ Similarly, discursive news values analysis focuses on journalistic texts as the locus of these values (see, e.g., Bednarek, 2016; Bednarek & Caple, 2012; 2014).

There is considerably less research on how *news users* discursively construct relevance, although there is reason to believe they may differ from professional journalists (Armstrong et al., 2015; Cunningham et al., 2016; Lee & Chyi, 2014). Exceptions include Bird, whose research focuses on *news talk*, ‘the informal and often very active way that news stories are communicated among people, and meanings are made that may have more or less to do with the original intent of the journalist who created the text’ (Bird, 2011, pp. 494-495). Similarly, Spitulnik Vidali (2010) analyzed young American adults’ discourses of disengagement from mainstream news, finding that multiple stances and rationales are clustered together under the umbrella of ‘disengagement.’

A three-year study in Finland found that news users understand the relevance of journalism in terms of their daily lives and particularly their social networks (Heikkilä and Ahva, 2015; Heikkilä et al., 2010). In that work, Heikkilä and colleagues treat media routines, interpretation, and public action as discursive practices of equal status that take place in social networks. That means that relevance is “anchored into the everyday social interaction of the members of any given public” (Heikkilä et al. 2010, p. 278). Building on their framework, our research proposes a method to narrow in on the interpretation of particular stories and better understand the scale of the social structures and relationships (*networks*, in Heikkilä and colleagues’ terms) that inform judgments of relevance. Specifically, we seek to determine whether there are defining linguistic features of *news users’* judgments of, and accounts for, story relevance, particularly in self-reference.

2.3 Deixis, Self-Reference, and Scale

To understand how people discursively construct their relationships and networks, we need to look at their practices of self-reference. Self-reference is a special case of deixis, ‘the encoding of many different aspects of the circumstances surrounding the utterance, within the utterance itself’ (Levinson 1983, p. 55). It is important to recognize that English contains no linguistic forms that are either uniquely or necessarily self-referential (Jaszczolt, 2013). Deictic frameworks can always be nested in one another such that the referents of even seemingly quintessential first-person forms like *I* and *me* shift (Goffman, 1981; Hanks, 2005).

We build on previous work that problematizes any “one-to-one mapping between person and reference” (Hogeweg & de Hoop, 2015, p. 133). Most such work starts from linguistic phenomena: pronouns and person (see, e.g., Gast et al., 2015; de Hoop & Tarenskeen, 2015; Helmbrecht, 2015). In contrast, we start from a discursive phenomenon: talk about the self.

In particular, we are interested in the practices of self-reference through which people locate the self as a member of groups of varying size and scale (Lerner, 1993). At one extreme, the pronouns *I*, *me*, and *my* are the most common method of individual self-reference (Schegloff, 1996; Land & Kitzinger, 2007). At the other, speakers make statements about *people* or *humans* or *life on Earth* that present the self only by implicature, as a member of the largest possible collective. Other frequently deployed resources at this extreme include universal (e.g. *everyone*) and free-choice (e.g. *anyone*) pronouns.

Speakers frequently use first-person plural pronouns (*we*, *us*, *our*) to cover most of the ground in between. Canonically, first-person plural pronouns are self-referential; they include both the speaker and at least one other individual.² How can one differentiate the range of scales at which speakers use *we*? Discourse studies of the first-person have focused on the distinction between inclusive and exclusive pronouns. Although English does not lexically or morphologically differentiate between first-person plural pronouns that include or exclude the hearer, structural and pragmatic differences typically allow English speakers to determine whether a particular token is inclusive or exclusive (Scheibman, 2004). In a research context like the one we analyze here, where respondents are likely to have little information about their interlocutor, the inclusive-exclusive distinction may be less important than a specificity distinction: *we* can refer to specific individuals (*individuated*, cf. Scheibman, 2004), to some group (*class*), or it may be *generic*. While we use Scheibman’s (2004) terminology here, the difference between *class* and *generic* is akin to the difference between what Kitagawa and Lehrer (1990) call *vague* and *impersonal* uses of *we*: ‘An ‘impersonal’ use of a pronoun applies to anyone and/or everyone. A ‘vague’ use applies to specific individuals, but they are not identified, or identifiable, by the speaker’ (Kitagawa and Lehrer, 1990, p. 742). In this study, we focused on additional linguistic resources people use to clarify the specificity of first-person plural pronouns.

Consistent with psychological theories of moral concern (Crimston et al., 2018), in addition to Heikkilä and colleagues’ findings about the role of networks in making sense of news, we anticipated that respondents who positioned themselves as part of larger collectivities vis-à-vis some news report would also be more likely to find that report relevant.

3 Data and Methods

This paper draws on data collected from seven studies (Table 1; Knology, 2020) conducted as part of two multi-year research initiatives on U.S. adults’ news consumption (Barchas-Lichtenstein et al., 2020). The studies were designed to elicit news user judgments of stories at the moment of interpretation (cf. Heikkilä & Ahva, 2015). While

² The context analyzed in this paper does not license the ‘hearer-dominant reading’ (De Cock, 2011) in which English first-person plural pronouns can exclude the speaker.

other aspects of research design differed, all participants were asked to view or read a piece of news content and respond to open- and closed-ended questions about it. This paper focuses specifically on responses to an open-ended question about the relevance of the news story to the respondent: ‘*Why [did you find this story relevant to you] or why not?*’³ Making use of this data allows us to compare the way a large number of people discursively construct news story (ir)relevance in a relatively standardized (but see Speer, 2002) linguistic and social context. Because the question text asks respondents to account for a judgment of relevance “to you,” an appropriate answer requires self-reference, whether to the individual self or to some collectivity of which that self is a part.

Table 1. Studies used for this analysis.

Topic	Description	Population	N	% of data set
Lyme disease	Respondents viewed one of three pieces (Facebook Live, broadcast video, web article)	18-35, not in school	294	26%
Opioids	Respondents viewed one of four pieces (web article, broadcast video, storified Twitter chat, digital explainer video)	24-33	172	15%
Dolphins	Respondents viewed one of three versions of a broadcast video	18-35, not in school	293	26%
Antibiotics	Respondents viewed a single broadcast video	18+	94	8%
Influenza	Respondents viewed a single broadcast video	18+	100	9%
Dogs	Respondents viewed a single broadcast video	18+	93	8%
Dentist	Respondents viewed a single broadcast video	18+	97	8%
Total			1143	

Notes: The first three studies were part of a larger study about U.S. early career adults’ science news use; the latter four were part of a larger study about U.S. adults’ health news use. All stories were produced by PBS NewsHour, a partner on both studies. All samples were recruited using TurkPrime (Litman et al., 2016) and Mechanical Turk, with the exception of the Opioids study, which was recruited through Soapbox Sample. N here includes only respondents who provided a codeable response to the open-ended question. See Supplement S1 for more details about each news report.

Bird (2011) observes that capturing everyday news talk in situ is often time-consuming and impractical for researchers. To avoid this challenge, she set up discussion groups as one way of eliciting such news talk. We elicited news talk through a different method, namely open-ended responses in online surveys. Fully understanding users’ reactions to news, which pervades daily life, requires triangulation between information drawn from a wide range of sources, particularly long-term ethnography (Madianou 2009, 2010). Our method does not replace such methods but complements them both by eliciting news talk and by means of an analytic strategy that highlights the depth already present in survey responses, which has frequently been overlooked.

We were particularly interested in survey responses for two reasons: survey research is frequent in journalism studies (Moy and Murphy, 2016), and researchers typically analyze open-ended questions using content analysis methods popular across the social sciences. These methods shift the focus away from the linguistic form of responses (e.g., Chi, 1997). As automated methods of content analysis become more prevalent, linguistic form recedes even further into the distance. In fact, many of these methods systematically change the linguistic form of texts for easier processing (Boumans and

³ In the first study (Lyme disease), respondents saw a single open-ended prompt that contained both questions: ‘Did you find this story relevant to you? Why or why not?’ In all subsequent studies, these questions were separated: respondents were asked to first answer a forced-choice question (‘Did you find this story relevant to you?’), and then a separate open-ended question: ‘Why or why not?’ See Supplement S2 for the visual appearance of the prompts.

Trilling, 2016). As such, we were interested in how an approach that centers language might complement these methods (see also Raclaw et al., in press).

A full analysis of audience positioning in the news reports is beyond the scope of this paper, but it is important to note that these news pieces varied in how frequently they made explicit reference to some audience. In some reports – including a news video about influenza, a digital explainer about opioids, and an article about Lyme disease – reporters and sources addressed news users directly, repeatedly using second-person pronouns and other second-person constructions like imperatives. In other cases, particularly three versions of a video about dolphins, the relationship of the content to news users was left more implicit.

3.1 Data Cleaning

The researchers excluded responses of three words or fewer because many of them were difficult to parse (e.g. “it just isn’t”). Furthermore, because the questions were set up differently in the Lyme disease study, the researchers coded these responses for comparability with the rest of the data set (Supplement S3).

Because our project focuses on reference in the specific context of appropriate responses to a question (*‘Why [did you find this story relevant to you] or why not?’*), we also excluded most first-person evidential and epistemic constructions (e.g. “I think”) from consideration (Supplement S4) before conducting further analysis. We do so in keeping with scholars like Schiffrin (1987), who treats composite discourse markers like ‘you know’ and ‘I mean’ as functional units. Similarly, Jaszczolt (2013, p. 68) observes that “in some [functions] first-person reference plays a secondary role, like for example self-attribution of mental states used for the purpose of attenuating commitment in ‘I think’ or ‘I believe.’”

3.2 Data Analysis

In contrast to content analysis methods that assume surveys provide direct access to some underlying mental representation, we propose a language-centered method for analyzing these questions. In this case, our analysis focused on responses to a single open-ended question. The question itself (*‘Why [did you find this story relevant to you] or why not?’*) contains an implicit second-person construction that is contextually understood as singular, thereby inviting self-reference in one form or another in the response. Our analysis therefore centers on deixis and particularly self-referential pronouns. Looking at these pronouns – which include not only the first-person singular but a number of other pronoun types – in context allowed us to explore respondents’ strategies for locating the relevance of a given news story in the social landscape.

3.2.1 Pronouns

Researchers annotated responses in the resulting data set by hand to identify relevant constructions. We first noted the presence or absence of specific types of pronouns *referring to persons*, namely:

- First-person singular pronouns, including those that were not overt (cf. Scott, 2013);
- First-person plural pronouns;⁴
- Universal indefinite pronouns (‘everyone’ and ‘everybody’ but not ‘everything’);
- Negative indefinite pronouns (‘no one’ and ‘nobody’, plus ‘anyone’ and ‘anybody’ in the presence of a negative polarity item, but not ‘nothing’ or ‘anything’); and
- Free-choice pronouns (‘anyone’ and ‘anybody’ in the absence of a negative polarity item, but not ‘anything’).

⁴ Initially, researchers attempted to determine if these pronouns were being used in an inclusive or exclusive fashion, but there were relatively few of these pronouns in the data set, and in some cases, there was insufficient discourse context to make a determination. Instead, the first author considered this question later, during detailed analysis of pronouns in context.

For more details on the initial annotation process, see Supplement S5.

We anticipated that self-reference at larger scale – including first-person plural pronouns, universal indefinite pronouns, and free-choice pronouns – would be more common among those who found a news story relevant. While not the central focus of this paper, we modeled these differences statistically, using logistic regression (see Supplements S6 and S7).

Our goal was to map out the full range of strategies that people use to locate themselves as individuals or members of collectives, rather than to measure the frequency of use. We acknowledge that the form of our experiment was procedurally consequential (cf. Speer, 2002) for the overall frequency of each pronoun type we study here. As such, we provide frequencies primarily as a way of characterizing our data set, rather than as grounds for inference.

3.2.2 Pronouns in Context

After the full data set was annotated, the first author examined strategies for communicating scale in all responses in the following categories, which were not mutually exclusive:

- Responses that contained at least one first-person plural pronoun;
- Responses that contained at least one universal indefinite pronoun;
- Responses that contained at least one free-choice pronoun;
- Responses that contained at least one negative indefinite pronoun; and
- Responses that did *not* contain first-person singular pronouns outside of epistemic constructions.

We looked primarily at the types of features that limit or broaden the reference of each pronoun. Such features included co-reference, co-occurrence with other quantifiers such as *all*, and modifying clauses or phrases. Given semantic constraints on the use of each pronoun, the features we examined differed somewhat from pronoun to pronoun.

In our more detailed analysis of these categories, we also considered *modality*, to determine whether respondents locate news story relevance in actual worlds or possible ones. Modal auxiliaries provide a primary linguistic resource for considering possible worlds others than the current world by referring to either a counterfactual past and present or a possible or probable future. For the purposes of this paper, we looked at three types of modals. We consider modals that indicate futurity, specifically *will* and *be going to*. We also examine modals of possibility or probability (*can*, *could*, *may*, *might*, and *would*) and modals of necessity or obligation (*have to*, *must*, *need to*, and *should*). We anticipated that modals of futurity and possibility would also be more common in responses from those who found a news story relevant, because they can be used to broaden the conditions for relevance. We did not have a prediction about the distribution of modals of necessity or obligation.

Finally, we noted words, phrases, or structures that appeared particularly frequently in each grouping.

4 Characterizing the Data Set

4.1. Perceptions of Relevance

Survey respondents said they perceived most stories as highly relevant, with 69% of all respondents claiming relevance regardless of the story (Table 2). Within stories, the proportion of participants who found each story relevant differed significantly from chance (50%). The exception was individuals who viewed one of the four Opioids pieces. Viewers of the other stories were almost twice as likely to rate those stories as relevant, compared to viewers of the Opioids stories. The low relevance rating for the Opioids stories was the only significant difference between stories.

Table 2. Number of respondents who reported that they perceived relevance, by story.

Topic	<i>n</i> relevant	Total <i>N</i>	%
Lyme disease	206	294	70%
Article	61	96	64%
Broadcast	68	97	70%
Facebook Live	77	101	76%
Opioids	85	172	49%
Article	23	47	49%
Broadcast	19	39	49%
Storified Twitter	23	48	48%
Digital Explainer	20	38	53%
Dolphins	195	293	67%
Version A	64	94	68%
Version B	69	102	68%
Version C	62	97	64%
Antibiotics	71	94	76%
Influenza	82	100	82%
Dogs	71	93	76%
Dentist	79	97	81%
Total	789	1143	69%

Notes: This table characterizes the initial binary judgment (see footnote on p.5) but respondents could and did use the open-ended question to provide additional subtlety. See Raclaw et al. (in press) for an example of a respondent upgrading their initial response.

Based on a logistic regression, differences between topics did not exceed chance, except for the difference between Opioids and other topics (Supplement S6). Differences between stories on any topic did not exceed chance.

Because comparable proportions of respondents found almost every story relevant, subsequent analysis focused on perceived relevance rather than story topic.

4.2 Grammatical Differences by Perceived Relevance

Next, we compared pronoun use across perceived story relevance. For all five types of pronouns, the two groups differed, and all differences exceeded chance (Tables 3 and 4). Those who found the story they saw relevant were more likely to use first-person plural, universal indefinite, and free choice pronouns. Those who did not find the story relevant were more likely to use first-person singular and negative indefinite pronouns.

Table 3. Presence of first-person constructions, excluding epistemic constructions, by perceived relevance.

Perceived Relevance	1 st person singular		1 st person plural		Total <i>N</i>
	<i>n</i>	%	<i>n</i>	%	
Yes	668	85%	90	11%	789
No	348	98%	7	2%	354
Total	1016	89%	97	8%	1143

Note: All differences exceeded chance. See Supplement S7.

Table 4. Presence of additional pronouns outside epistemic constructions, by perceived relevance.

Perceived Relevance	universal indefinite		negative indefinite		free-choice	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	52	7%	7	1%	24	3%
No	1	0%	30	8%	0	0%
Total	53	5%	37	3%	24	2%

Note: All differences exceeded chance. See Supplement S7.

These results suggest systematic differences in practices of self-reference when people are discussing news stories that they do or do not find relevant, particularly since all

differences were statistically robust. The next section focuses on the wide range of strategies respondents used to communicate scale that cannot be reduced to pronoun choice.

5 Self-Reference at Different Scales

5.1 First-person plural pronouns

We first identified the specificity of first-person plural pronouns in our data set, considering the relative frequency of *generic* pronouns that refer to everyone, *individuated* pronouns that refer to some specific set of individuals, and *class* pronouns that refer to some group. Gast et al. (2015) note that personal and impersonal uses of *you* are not distinguished either lexically or grammatically; we also took a pragmatic approach to the question of specificity.

About two-thirds (sixty-five of ninety-seven) of responses containing first-person plural pronouns were determined to contain only generic pronouns (Table 5). Another one-fifth contained only individuated pronouns. Smaller numbers of responses contained only class pronouns – typically referring to some specific geographic area – or both individuated and class pronouns. We then considered each type of pronoun by group to identify common features that led us to these judgments.

Table 5. Specificity of first-person pronouns in responses.

Perceived Relevance	individuated only	class only	generic only	individuated & class
Yes	22	6	61	2
No	1	2	4	-
Total	23	8	65	2

Respondents communicated genericness through a range of linguistic strategies which were not mutually exclusive:

- They used *we* co-occurring with *all* ($n = 22$), either as a floating quantifier or in the phrases *we all* or *all of us*. One additional respondent used the phrase *we collectively*.
- In nineteen cases, respondents used the first-person plural pronoun possessively (*our*) to modify an abstract noun. These nouns referred either to Earth as a whole (*ecosystem*, *environment*, *oceans*, *planet*, *sea life*, *world*, etc.), to some unspecified grouping of people (*society*) or to an effect or trait of humanity as a whole (*carelessness*, *impact on the globe*, *understanding of the world around us*, etc.).
- In fourteen responses, respondents used *we* to co-refer with either universal indefinite pronouns or free-choice pronouns.
- A number of respondents ($n = 9$) claimed membership in groups defined by the generic noun *humans* through co-reference (Example 1).

Example 1⁵

I'm **a human who wants to live** and these bugs could kill **us all**. (Antibiotics)

⁵ For ease of reading, we have standardized orthography in all partial and full survey responses quoted in this paper in the following ways: (1) capitalized response- and sentence-initial words and the pronoun *I*; (2) introduced apostrophes into contractions that were written without these (e.g. *dont* became *don't*); (3) revised non-standard orthographic representations if and only if there was a single standard possibility (e.g. *egosystems* became *ecosystems* and *opiod* became *opioid*). We use **bold** to indicate phenomena of interest, while underlining indicates epistemic first-person constructions that were excluded from analysis.

Fourteen respondents used none of these strategies. However, all of them used *we* either in the context of general scientific progress ($n = 6$), broad environmental action ($n = 6$), or to locate the response in a particular moment in time ($n = 2$).

About half ($n = 33$) of all generic first-person plural pronouns co-occurred with future and modal verbs, typically in the context of an abstract or future action attributable to, or affecting, humanity rather than specific individuals. Specifically, responses with first-person plural pronouns included roughly equal numbers of modals of necessity, such as *need to* and *should* ($n = 16$), and possibility, such as *can* and *could* ($n = 17$). Future constructions ($n = 5$) were less common.

Meanwhile, respondents most commonly expressed individuation through co-reference or by means of specific possessive constructions. *We* often co-referred with *my family* or other kin terms, and often included split antecedents (Example 2). Expressions that indicated some specific joint possession or relative (e.g. 'We have a dog,' 'our yard,' 'our children') also indicated some specific, individuated set of referents.

Example 2

...These two topics are something **myself** and **the people close to me** care about.
We all try as much as possible... (Dolphins)

In a few cases, absent any motivation for a generic reading, researchers understood *we* to refer in an individuated fashion to the respondent and their partner or immediate family (Examples 3-6). As Kitzing (2005: 245) notes, 'use of a locally initial and unspecified *we* is normatively treated by co-interactants as meaning the speaker and his or her spouse.' In all such cases in our data, respondents portray the collectivity referenced by *we* as either living together or having joint medical concerns, both of which are culturally understood as characteristic of couples or families (cf. Kitzing 2005: 247).

Example 3

It is relevant to me because **we** live in an area that has ticks. Anyone could get ticks on them and it will be better to have something to cure it so the person does not have to suffer. Plus, I have kids so they could easily get a tick on them. (Lyme disease)

Example 4

Yes. I know **we** are not in the area where ticks are more likely to be found, but I like to be prepared since we do have a large feral cat population as well as dogs. (Lyme disease)

Example 5

I find this story relevant to me. In April of this year, I had a tick and **we** were concerned I was going to get Lyme's disease. Thankfully, **we** don't think I did, but... (Lyme disease)

Example 6

I think **we** could research this as a way to keep my grandkids' teeth healthy.
(Dentist)

Individuated pronouns also co-occurred with modals with a similar frequency: twelve of the twenty-four responses containing individuated pronouns also contained modals. With these pronouns, modals of possibility were much more frequent ($n = 9$) than either futurity ($n = 4$) or necessity ($n = 1$). One response contained a habitual *would*, which fits none of these categories. In many cases, *we* and its co-referents are outside the scope of the modal auxiliary. In those cases where it is clearly within scope, respondents use modals of possibility to locate story relevance within some possible world. For example, 'Yes, it was relevant, because *we* and our pets can be at risk.'

Finally, first-person plural pronouns understood to have a class interpretation all occurred in the context of some sort of locative expression, such that *we* referred to inhabitants of that location (Example 4; Examples 7-9).

Example 7

Yes, because in upstate NY **we** have a lot of ticks and I have found some on my pants and my dogs in past years. (Lyme disease)

Example 8

I lived in the south, where **we** were taught to always check for ticks. :) (Lyme disease)

Example 9

I live in Hawaii and feel very connected to the ocean that surrounds **us**. I love nature and animals and feel much more needs to be done to protect them. (Dolphins)

Only seven of the respondents who used first-person plural pronouns judged the story they saw not relevant. Two of these respondents used class pronouns in their observation that the issue at hand was not relevant to their geographic area, and one used an individuated pronoun to disclaim any immediate connection. The other four respondents used generic pronouns, and three of them explicitly differentiated between relevance to the individual and relevance to the larger social collective (Example 10).

Example 10

I do not live near much marine life, but I guess everything that happens in the environment is somewhat important to all of us. It does not affect me directly though. (Dolphins)

5.2 Universal indefinite pronouns and free-choice pronouns

Both universal indefinite pronouns like *everyone* and free-choice pronouns like *anyone* are understood to have broad reference, and both can be modified such that their interpretation is universal within some given context rather than truly universal.⁶ Given this paper's focus, we considered these two types of pronouns together.

5.2.1 Limitations on universal reference

In forty-two out of fifty-three cases, respondents did not modify universal indefinite pronouns. Interestingly, even when respondents used modifying clauses or phrases, they only rarely significantly limited the scale of the pronoun (Table 6). In four cases, respondents used locative phrases to modify *everyone*. However, those locative phrases typically referred to Earth as a whole: '*everyone in society*,' '*everyone on the planet*,' '*everyone in the world*.' In the last case, the respondent used a specific locative phrase that did meaningfully qualify *everyone*: '*everyone in the US*.' In three cases, respondents only modified *everyone* to position themselves relative to this *everyone*: one respondent wrote about '*everyone, including me*' while two respondents compared themselves to '*everyone else*.' Two respondents pre-emptively dismissed limitations to the pronoun's reference: '*everyone who ever gets sick (so, everyone)*' and '*everyone whether you're living on the coast or not*.' One respondent hedged the universal reference ('*just about everyone*'). Finally, two respondents used restrictive relative clauses to further define the pronoun's reference; however, both respondents did so to somewhat facetious effect: '*everyone who has teeth*' and '*everyone who ever gets sick*.'

⁶ Semantic differences between universal and free-choice items are beyond the scope of this article, but see Giannakidou (2001).

Table 6. Modified universal indefinite pronouns in the data set.

Strategy	Number of cases	Cases
Broad locative	4	Every one in society feels this is relevant because flu season is applicable to all. ... (Influenza) ... The study regarding the life of dolphins is just one of the many important things everyone in the world needs to know more about. ... (Dolphins) <u>I think</u> this story is important to everyone on the planet since it can harm all of us. (Antibiotics)
Specific locative	1	<u>I think</u> the flu and being aware of it is relevant to everyone in the US (Influenza)
Position self	3	Well, clearly, because I am ultimately as reliant on antibiotics as everyone else , so it's definitely relevant to me. (Antibiotics) I like everyone else am vulnerable to becoming infected with the flu and ... (Influenza) It's relevant to everyone, including me , because antibiotics are a major way that diseases are treated and ... (Antibiotics)
Dismiss limitations	2	It's relevant to everyone whether you're living on the coast or not because of how humans affect the ecosystems of the ocean. (Dolphins) It's relevant to everyone who ever gets sick (so, everyone) . It's likewise relevant even for those who rarely get sick, but ... (Antibiotics)
Hedge	1	<u>I think</u> dentist visits are relevant to just about everyone , thus I would affirm that <u>it is relevant to me</u> . (Dentist)
Definition (restrictive relative clause or prepositional phrase)	2	Dental care and treatment options are important to everyone who has teeth . (Dentist) It's relevant to everyone who ever gets sick (so, everyone) . It's likewise relevant even for those who rarely get sick, but ... (Antibiotics)
Generic we	-	-

Notes: A total of 53 responses in the data set contained this type of pronoun. All others were unmodified.

Meanwhile, respondents more frequently limited the scale of free-choice pronouns (Table 7). Half of the twenty-four cases were modified, and seven of them defined the referent through a relative clause or prepositional phrase. In one case, the respondent limited the interpretation of the pronoun to free choice within a small, individuated group: 'anyone of my family.' Only one case positioned the respondent vis-à-vis 'anyone else,' one dismissed limitations ('*anyone no matter where they are*'), and two hedged the force of the pronoun ('*just about anyone*'). Finally, one respondent used *anyone* with a generic first-person plural pronoun ('*anyone of us*'), a strategy that was not available with universal indefinite pronouns.

Table 7. Modified free-choice pronouns in the data set.

Strategy	Number of cases	Cases
Broad locative	-	-
Specific locative	-	-
Position self	1	Like anyone else , I could get the flu so it is relevant in that sense. ... (Influenza)
Dismiss limitations	1	Yes because it can happen to anyone no matter where they are . (Lyme disease)
Hedge	2	... So sure the story is relevant to just about anyone . (Dentist) ... owning a pet could certainly provide psychological (and possibly physical) benefits to just about anyone (Dogs)
Definition (restrictive relative clause or prepositional phrase)	7	<u>I guess</u> it's relevant to anyone with teeth (Dentist) It's relevant to anyone who's in areas with the flu outbreak . (Influenza) I think it is relevant to anyone who may be prescribed antibiotics (Antibiotics) <u>I think</u> it's relevant to anyone who could potentially be affected by ticks . (Lyme disease) ...ticks are relevant to anyone that goes outside . (Lyme disease) It's relevant to anyone that can get the flu? ... (Influenza) I live in the United States and I have kids so anyone of my family could get the flu ... (Influenza)
Generic we	1	It could affect anyone of us . (Antibiotics)

Notes: A total of 24 responses in the data set contained this type of pronoun. All others were unmodified.

5.2.2 Modality: Actual worlds and possible worlds

The fifty-three respondents who used universal indefinite pronouns differed primarily in whether they located a story's universal relevance in current reality or linked it to possible worlds. Twenty-four of them used at least one modal verb, with modals of possibility or probability ($n = 17$) used most frequently. Modals indicating necessity or obligation ($n = 5$) were less frequent, as were those indicating futurity ($n = 6$). In general, the universal pronoun or its co-referent was within the scope of these modals, although there were two exceptions (Examples 11-12).

Example 11

I love dolphins, I think if there is a fundraiser to help this cause I **would** be willing to donate. Every part of the ecosystem is relevant to **everyone** in my opinion. Just because I don't fish or live near an ocean doesn't mean this topic is irrelevant to me. (Dolphins)

Example 12

It's relevant to **everyone** who ever gets sick (so, everyone). It's likewise relevant even for those who rarely get sick, but may visit someone in the hospital, where unfortunately it seems most of the superbugs seem to be picked up.

I also have a child who, while she's been extremely healthy so far (don't think she's yet been put on any antibiotics), **will** possibly face this problem becoming more serious before it gets better. (Antibiotics)

Meanwhile, respondents typically used free-choice pronouns in contexts suggesting a story's possible relevance rather than current relevance.⁷ All but six of the twenty-four respondents who included free-choice pronouns used modal verbs. These were overwhelmingly modals of possibility. Specifically, all eighteen responses contained at least one of these,⁸ with only two responses containing modals of necessity and one containing a future. When free-choice pronouns co-occurred with any modal auxiliary, they were always within the scope of at least one of these auxiliaries. One of the six responses that did not use a modal communicated possibility through lexical means (Example 13). All five other responses described the story as 'relevant to anyone.'

Example 13

I thankfully don't have a lot of tooth decay, but I do have teeth, and **anyone is susceptible to cavities**. (Dentist)

5.3 Negative indefinite pronouns

Thirty-seven respondents used negative indefinite pronouns. What was most striking about their responses, was the preponderance of a single verb, *know*, which occurred in thirty-two of these thirty-seven responses. While these responses took different forms, a first-person singular pronoun (whether overt or non-overt) was the subject of *know* and the negative indefinite was the object in every single one (Examples 14-16)

Example 14

No, **[I] never** had a tick bite or **know anyone who has** (Lyme disease)

Example 15

I personally do not live anywhere near the ocean and do not engage in fishing practices. **I also do not know anyone who does engage in ocean fishing**. (Dolphins)

Example 16

No one I know is on any drugs, and I've never done any. (Opioids)

The other five respondents used different wording, but they all similarly disavowed social connection to people with lived experience related to the topic of the story (Examples 17-21). Negative indefinite pronouns varied systematically from the other pronouns in that the respondents who judged the story **not relevant** were much more likely to use them. Furthermore, all seven of the respondents who found their story relevant used these pronouns to problematize their claim of relevance. Five of these responses were structurally similar: 'I don't know anyone who [has lived experience] but [justification for claiming relevance]' while the other two responses began with the justification.

Example 17

It doesn't personally involve anyone or anything **near and dear to me**. I do find it fascinating though. (Dolphins)

Example 18

I don't do drugs and **nobody around me does either** so don't really affect me (Opioids)

⁷ See Giannakidou, 2001, for semantic constraints on the distribution of free-choice pronouns.

⁸ One of these responses included a free-choice pronoun in a context that limited its possible referents to a very small group: 'I live in the United States and I have kids so anyone of my family could get the flu so I find it very relevant.'

Example 19

I neither have nor **have come in contact with anyone battling this addiction** (Opioids)

Example 20

Because even though **I don't have any one close to me that uses drugs** but I can positively contribute in discussions and also on social media. (Opioids)

Example 21

It's not relevant to me even tho **I find the story interesting**, but has no relevance to my personal life because I've never done drugs and will never do drugs and **I have no one in my personal life that does any such drugs**. (Opioids)

5.4 Responses without first-person singular pronouns

As Schegloff (1996: 447) reminds us, 'a significant but otherwise hidden feature of 'I' and 'you' [is] ... that they mask the relevance of the referent and the reference at that point in the talk.' In contrast, other ways of referring to one's self or one's interlocutor make this connection more explicit. In the context of the survey question, the absence of first-person singular pronouns is pragmatically marked, and we were particularly interested in how respondents might make their responses intelligible as answers to the question, particularly because we expected to see other forms of self-reference of the type Schegloff describes.

The full data set included a total of 127 responses with no non-epistemic first-person pronoun. Of these 127, seventy-seven used at least one of the pronoun types analyzed in detail above.⁹ Meanwhile, the fifty respondents who used none of the included pronouns made use of a range of grammatical constructions and strategies. These strategies varied in their scale, with some indicating a story's individual relevance or relevance to some particular group, others indicating generic or universal relevance, and still others with multiple readings.

Individualizing strategies included elliptical self-reference (Examples 22-23),¹⁰ while strategies for referring to a class included locative constructions that presented the respondent as part of some geographic group by implicature (Example 24). Meanwhile, universalizing strategies included: second-person pronouns (Example 25); nouns of humanity (*people*, *humans*, *the human race*) or life more broadly (*life on earth*), often used with universal quantifiers like *all*; and impersonal constructions about the magnitude of the problems addressed (Examples 26-27).

Example 22

Because as a dog owner, it's awesome hearing these kinds of stories. (Dogs)

Example 23

Yes, there is a dog in the house and this is good information about ticks. (Lyme disease)

Example 24

I did [find it relevant] - there are a lot of ticks in Minnesota and so it's important to know how to deal with them! (Lyme disease)

⁹ There was wide variation in co-occurrence. All negative indefinite pronouns co-occurred with first-person singular pronouns, while only about one-quarter of universal indefinite pronouns did. See Supplement S8.

¹⁰ We are indebted to Joshua Raclaw for this description of these constructions.

Example 25

It makes you pause and think about your environmental impact. It's not just "some trash stays around for a long time." It can also be, "some trash immediately affects wildlife." (Dolphins)

Example 26

Because this is really happening all over the world (Opioids)

Example 27

Opioid addiction is a real crisis (Opioids)

Meanwhile, some strategies were ambiguous: they could be read on either the individual or generic level. Notably, a number of respondents used impersonal constructions about the interest or relevance of the story (e.g. 'nothing was very interesting [to me / anyone]' and 'it was tangentially relevant [to me / in general], the knowledge of this was important') or the importance of being informed (e.g. 'It's important [for me / everyone] to know about this topic'), both of which were ambiguous in this way.

Only five of these fifty responses included modal verbs. Three of these were modals of necessity or obligation (Examples 28-30), while two were modals of possibility (Examples 25, 31). In all cases, modals served as universalizing strategies, whether alone or in concert with other such strategies.

Example 28

I think that people **should** be informed. (Opioids)

Example 29

It further shows how unchecked human activity has caused an array of environmental issues that **need to** be resolved (Dolphins)

Example 30

It **needs to** be known for the future (Antibiotics)

Example 31

Relevant because it involves a disease that **can** affect humans. (Lyme disease)

6 Concluding Thoughts: Implications for Researchers and Journalists

The findings reported here represent an important first step in understanding how news users construct story relevance. There appears to be a link between individuals' perception of story relevance and how they refer to themselves — as individuals or as members of collectives or varying sizes. Focusing on linguistic form rather than on some underlying mental representation demonstrates both a) various strategies of self-reference and b) some of the mechanisms of co-construction of story relevance. It also suggests that further examination of this question may be valuable for researchers and professional journalists alike.

In general, respondents who referred to themselves as members of larger-scale collectivities were more likely to say they perceived a news report as relevant. Similarly, respondents who judged a news story as irrelevant were much more likely to use individualizing forms of self-reference. Respondents who saw different stories judged them relevant at different rates, and the patterns we observed across stories bolster the view of news relevance as co-constructed by journalists and news users, rather than inherent to story topic. We suggest the following provisional definition, which starts from the news user's perspective: "a news report is relevant if a news user treats it as impacting the

everyday experiences or interactions of either that individual or a larger collectivity of which they describe themselves as a member.”

What types of larger collectivities do people describe themselves as members of? Although it is not the focus of the present paper, these results suggest that further study of practices of self-categorization (Schegloff, 2007a, b) may also be valuable for understanding this question. For example, many respondents in our data set self-categorize either elliptically or directly. While elliptical self-categorizations in our data set are typically adverbial, direct self-categorizations prototypically appear as ‘I am (not) a(n) ...’ either solely or as part of a longer answer. For a response of this form to be a good answer to the question, respondents must believe that the story they saw is self-evidently relevant to members of the category in question. Further research might investigate the categories that come to the fore in responses of this sort, and thus determine the commonalities in these judgments of news story relevance. Such research might also ultimately develop research methods for understanding these judgments at a larger scale.

For researchers, our study sheds light into how news users consider story relevance. These findings also support the value of applying language-centered methods to textual data collected through online surveys. As applied researchers, the authors often work in contexts where ethnography and interview methods are not feasible, due to the time required of both researchers and research participants. Online surveys are increasingly common across disciplines (Boyle et al. 2017), but they are vulnerable to the same critiques of context-insensitivity as other survey research methods. We suggest that our approach may reintroduce some of the nuance and complexity that ethnographic methods capture so well, and perhaps highlight regularities that may have gone previously unnoticed.

For journalists hoping to inform a broad cross-section of society, our results make it clear that they cannot hope to produce stories that are of relevance to all news users, nor can they assume that relevance is fully within their control. In particular, simple mappings of topics to types of people cannot take into account the varying scales of social life that inform these judgments. Instead, journalists must make explicit connections to as broad a variety of possible points of relevance as is practical. In this context, better understanding of self-categorization practices might help journalists determine which points of relevance to highlight. Our findings also suggest the need for additional ethnographic research on how people talk about news stories, how they discursively construct the relevance of news in a range of contexts, and how they make sense of news in their daily lives.

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