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Power of the people or the expert? The influence of vox pop and expert statements on news-item evaluation, perceived public opinion, and personal opinion

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Abstract: Vox pops, interviews with ordinary people on the street, are one of the most common ways to represent public opinion in television news. Research found that they influence audience judgments more than static base-rate information such as poll results. However, little research has compared vox pops with vivified base-rate information. Most research studying vox pops assumed they are included in the news because of their apparent attractiveness and trustworthiness to audiences. Using a television news experiment comparing statistical base-rate information vivified by an expert with vox pop statements, this study shows that news items containing vox pop statements are perceived as being less attractive and trustworthy than items containing the expert statement. No difference is found between the two types of public opinion information in their influence on perceived public opinion, but vox pops do influence audiences' personal opinion more strongly.

Keywords: exemplification, experiment, expert, journalism, public opinion, television news, vox pops

1 Introduction

Vox pops, interviews with ordinary people on the street representing the general public, are one of the most prevalent ways for journalists to portray public opinion in television news (Lewis, Inthorn, and Wahl-Jorgensen, 2005). To show how people think about a news topic, journalists often present interviews with a few apparently randomly selected citizens sharing their viewpoint on the topic. These vox pops are found to take away airtime from other—elite—sources and public opinion representations in the news (Beckers, Walgrave, and Van den

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Bulck, 2018; De Swert, Walgrave, Hooghe, Uce, and Hardy, 2008; Kleemans, Schaap, and Hermans, 2017; Pantti and Husslage, 2009). Most research focusing on vox pops has assumed they are included in the news by journalists because of their attractiveness and audience appeal (Beckers, 2017; Kleemans et al., 2017; Pantti and Husslage, 2009; Skovsgaard and van Dalen, 2013). However, it is as yet unknown whether audiences indeed perceive a news item as being more attractive when it contains vox pop interviews.

When used as a representation of public opinion in the news, the inclusion of vox pops is not without consequences. Research based on exemplification theory has consistently shown that "vox pops" or "popular exemplars" in the news influence audiences' perceptions of public opinion and in some cases even personal opinions (Arpan, 2009; Beckers, 2019; Brosius and Bathelt, 1994; Perry and Gonzenbach, 1997). Consequently, we already know these apparently trivial news sources to be influential, which would be explained mostly by their vivid nature (Zillmann and Brosius, 2000). Vox pops are almost unfailingly found to be more influential than (statistical) base-rate information on a news issue. However, most effects research has compared vox pops with rather static base-rate information in the news or studied the mere presence of vox pops (e. g., Daschmann, 2000; Perry and Gonzenbach, 1997). Little is known about the influence of other more vivid representations of public opinion, such as direct quotes by an expert. This is striking as Daschmann and Brosius (1999) found expert interviews to be the second most used means to present base-rate information in the news, appearing in 57 % of German television news stories. This paper will thus compare the influence of vox pop statements with another vivid way to present base-rate information on public opinion: expert accounts.

Besides their vividness, the influence of vox pops is often explained by their perceived trustworthiness and authenticity, which would distinguish them from most other sources in the news. Vox pops make news more recognizable to audiences and would be perceived as being more trustworthy because they have no apparent stake in the issue at hand (Arpan, 2009; Lefevere, Walgrave, and De Swert, 2012; Zillmann and Brosius, 2000). For this reason, this paper studies how news items containing vox pops score regarding audience evaluations compared to news items containing other (elite) news sources, more specifically experts. If news items containing vox pops are indeed perceived as being more trustworthy by audiences, this might help provide a better understanding of their influence on perceptions of public opinion and personal opinion.

First, this study investigates differences in perceived attractiveness and trustworthiness of news items containing either vox pops exemplifying public opinion or an expert presenting statistical poll information. Second, we study to what extent the vox pop's effect on people's perceived public opinion and personal

opinion differs from the effect of the interviewed expert. To do so, we draw on a web-based experiment in Flanders (Belgium) using constructed television news items containing either vox pops or an expert giving different viewpoints on an issue.

News item evaluation

Increased competition, the battle for audience shares, and around-the-clock deadlines are often seen as factors that push broadcasters to continuously try to attract audiences (Paulussen and Ugille, 2008; Saltzis and Dickinson, 2008; Witschge and Nygren, 2009). One of the strategies to do so would be to make the news more personal and to focus on a human-interest approach (Hendriks Vettehen, Nuijten, and Beentjes, 2005; Hendriks Vettehen, Beentjes, Nuijten, and Peeters, 2010; Kleemans et al., 2017). Instead of using elite sources with more authority, the media would increasingly turn to ordinary citizens, who are easy for audiences to identify with, although elites still dominate the news for most issues. Despite the fact that a survey with Flemish journalists found that journalists think vox pops are used too frequently in the news (Beckers, 2018), several content analyses found vox pops were increasingly taking away airtime from traditional elites such as experts and politicians (Hendriks Vettehen et al., 2010; Kleemans et al., 2017). It thus seems that journalists regularly use vox pops in their news coverage. This is often explained by the assumption that they make news items more attractive to audiences (Brants and Van Praag, 2006; Brosius, 2003; D'Alessio, 2003; Hopmann, Elmelundpræstekær, Albæk, and De Vreese, 2009; Kleemans et al., 2017; Zillmann and Brosius, 2000). However, so far only assumptions exist about the perceived attraction of vox pops to audiences compared to other forms of public opinion information. It is not known whether this is indeed the case, and this study will be the first to compare the influence of vox pops exemplifying public opinion on news item attractiveness to an elite source, that is, an expert source presenting public opinion information.

H1: News items containing vox pop statements exemplifying public opinion will be evaluated as being more attractive than news items containing an expert-statement giving statistical public opinion information.

Vox pops' influence in the news is often ascribed to their apparent recognizability and authenticity. They would be perceived by audiences as trustworthy because they have the closest proximity to the audience as a representation of the general public in the news and provide news with some sort of legitimacy (Brosius, 2003;

D'Alessio, 2003; Zillmann and Brosius, 2000). Vox pops draw their right to speak in television news from their authentic experiences and honest reactions because they have no direct involvement with a news issue (Carpentier, 2011; Lewis et al., 2005, p. 85). However, few studies have investigated whether vox pops are indeed perceived by audiences as being trustworthy. The first to systematically test this were Lefevere, Walgrave and De Swert (2012) in an experiment in which they compared vox pops and expert statements. They found that, against their expectations, news items containing expert statements were perceived as being equally trustworthy as news items containing vox pops. This might be explained by the fact that compared to other elite sources such as politicians or businesspeople, experts have fewer reasons to speak in the news with a certain agenda. There are therefore reasons to expect that the inclusion of both vox pops and expert statements increase a news item's trustworthiness. As little evidence exists on the differences in trustworthiness between vox pop statements and public opinion information put forward by an expert and the spillover to the perceived trustworthiness of the news item, we formulate the following research question:

RQ1: Are there differences in the perceived trustworthiness between news items containing an expert statement giving statistical public opinion information and news items containing vox pop statements exemplifying public opinion?

Perceived public opinion and personal opinion

For most people, news media are their main source of information to learn about public opinion on societal issues, so how journalists report on the public sentiment is important (Busselle and Shrum, 2003; Gunther, 1998; Moy and Scheufele, 2000). Vox pops are one of the most prevalent ways to refer to public opinion in television news, comprising four out of ten references to public opinion in UK and US news broadcasts (Lewis et al., 2005), and making up almost half of all types of citizen participation in Spanish television news (Bergillos, 2019). However, several other ways exist in which media can present public opinion in the news, such as public opinion polls and general inferences to public opinion (e. g., "the people are angry").

Most research has studied the public opinion influence of vox pops by comparing them to base-rate information, which is usually based on more valid and reliable empirical data. Results of these studies have almost consistently indicated that (numerical and non-numerical) base-rate information has almost no impact whereas vox pops were found to influence people's judgments and

opinions (Brosius and Bathelt, 1994; Gibson and Zillmann, 1993, 1994; Zillmann and Brosius, 2000; Zillmann, Perkins, and Sundar, 1992). These effects were established for several news issues, (Brosius and Bathelt, 1994), even for morally loaded (Zerback and Fawzi, 2017) or politically important topics (i. e., elections; Daschmann, 2000). Moreover, in previous studies, vox pops were compared to other public opinion displays such as opinion polls (e. g., Daschmann, 2000) and general inferences (Zillmann, Gibson, Sundar, and Perkins, 1996). In these studies, vox pops were found to be influential whereas the other public opinion information had almost no impact. However, in most cases, the base-rate information was provided in a rather static manner (e. g., providing the information in a printed text without the use of quotes). Most studies did not 'vivify' the base-rate information.

A few studies did manipulate the vividness of this base-rate information, but they did not use other forms of direct quotation. Brosius and Bathelt (1994), for instance, manipulated the vividness of the exemplars' speech by using emotional quotes compared to monotonous and pallid quotes. Additionally, they compared more vivid, directly-quoted interviews with a journalist paraphrasing the information from the exemplars. While they did not find an effect of the vividness of the language used, they did find that respondents' perceived public opinion and personal opinion were influenced more in the direction of the vivid direct interviews compared to the journalist paraphrasing the same exemplar statements. It thus seems that the fact that exemplars are directly quoted might play a role in their influence. Other studies also found directly-quoted exemplars of ordinary citizens to be more influential than similar indirect citations (Gibson and Zillmann, 1993, 1998). Consequently, it might be that base-rate information is influential when vivified, for instance, when explained by an expert.

Yet, there are other reasons to expect that vox pops are still more influential than vivified base-rate information on perceptions of public opinion and personal opinion. The effect of vox pops is often grounded in exemplification theory, which is based on heuristic information processing. The basic premise is that people do not have the time and/or motivation to process all information in the news attentively, and therefore often rely on simple heuristics, causing them to make cognitive shortcuts (Tversky and Kahneman, 1973). Of relevance for this study is what is called the "*base-rate fallacy*" (Bar-Hillel, 1980). When general information (e. g., statistics) and specific information (e. g., examples) are presented, people have the tendency to focus on the specific and neglect the general. They have difficulty interpreting the base-rate information and evaluating its diagnostic value (Tversky and Kahneman, 1971). So, people often do not base their decisions on concrete numbers but on specific cases such as vox pops. A related heuristic that applies to the context of comparing vox pops with expert statements is the *repre-*

sentativeness heuristic. People are bad at interpreting samples and tend to generalize specific examples to the broader population. When doing so, people neglect other information about the general probability or occurrence of events.

Besides the representativeness heuristic, what is referred to as *availability* is often used to explain the almost consistent influence of exemplars over other information: People's perceptions and judgements are based to a large degree on information that is easy to retrieve from memory (Tversky and Kahneman, 1973). In exemplification research, availability is often operationalized in terms of vividness: More vivid information would be easier to process and retrieve from memory when people are forming judgments. Several studies concluded that regardless of how clear or explicit the base-rate information was about the direction of public opinion, people followed the direction of the vox pop viewpoints. However, in most of these studies, base-rate information was kept constant and was presented in a static manner (e. g., Zillmann and Brosius, 2000). In our experiment, we take away the vividness advantage of the vox pops and present the base-rate information in an equally vivid manner.

Lefevere, De Swert, and Walgrave (2012) were the first (and to our knowledge the only researchers) to compare the influence of directly-quoted vox pops with directly-quoted experts and politicians on people's personal opinion. They found respondents to be influenced least by the politicians' quotes. Moreover, the vox pop (they called them "popular exemplars") quotes were found to be more influential than the public opinion information given by the expert. Based on this empirical evidence and the different heuristics that are expected to come into play, we hypothesize that people do not take decisions based on quantified probabilities, even when they are vivified through an expert-quote, but based on specific cases such as vox pops. People will perceive the small sample of vox pops as an implicit representation of the public in the news and generalize the information they give to the entire population (Lewis et al., 2005; Myers, 2004). This is why we hypothesize the vox pop statements to be more influential than the expert statement, both for audience perceptions and opinions.

H2: People's perceived public opinion will be more in accordance with vox pop statements exemplifying public opinion than with an expert statement giving statistical public opinion information.

H3: People's personal opinion will be more in accordance with vox pop statements exemplifying public opinion than with an expert statement giving statistical public opinion information.

2 Method

To investigate the research question and hypotheses, we conduct a web-based experiment. The experimental stimuli are four news items created especially for this experiment in association with the Flemish public service broadcaster *Eén*. To construct the items, we collaborated with the broadcaster's news anchor and journalists. The official layout and a professional film crew were used.

Stimulus materials

The stimulus news item covered a story about an ongoing discussion in the Flemish Parliament about investments in traffic infrastructure. The news anchor explains that due to budget cuts, the government will have to choose between the maintenance of regional highways or further investments in bicycle highways in the short term. After the introductory text by the news anchor, the voice-over further explains the choice the government will have to make, while footage of bicycle highways and regional highways is shown on-screen.

After the identical introduction, depending on the condition, interviews with different types of sources ensued (four vox pops or one expert), giving information about public opinion. The vox pop news clips contained vox pops that were diverse in terms of age and gender, making them as realistic as possible. Half of the interviewees were male, the other two female. Moreover, all vox pops came from different age groups and were displayed without a caption, as is also the case in the real news broadcasts. The expert was a 39-year-old man, accompanied with the caption "traffic expert" and filmed in front of a banner of the Flemish Traffic Foundation (Vlaamse Stichting Verkeerskunde, VSV).

The speaking sources either favored bicycle highways ("pro-bike") or regional highways ("pro-car"). In the vox pop conditions, all four vox pops gave either pro-bike opinions (e. g., "I think they should prioritize weak road users, so bicyclists" or "I think the government should invest in bicycle highways first"), or pro-car (e. g., "On the news they are always talking about traffic jams. I think they need to take a look at the roads first" or "They should start paying attention to the Flemish roads. I think that is more important than a bicycle highway"). The expert talked about a survey which the VSV had conducted: "As VSV, we conducted a survey with a sample of Flemings to get to know their opinions about investments in safe road infrastructure. From the results it became clear that the Flemings would rather invest in bicycle highways [regional highways]. 64 % of Flemings indicated their preference for investments in additional bicycle high-

ways [regional highways] over investments in regional roads [bicycle highways]. So, the government faces an important choice."

Four vox pop statements were compared to one expert statement. This choice was made to keep the external validity of the news item as high as possible, in line with the study conducted by Lefevere, De Swert, and Walgrave (2012). In real news items, a single vox pop is rather rare, and it is also unlikely that results from more than one survey are presented. However, this choice for realistic news items decreases our internal validity. To minimize this confounding factor, we tried to keep the length of the news items similar across conditions. The news items containing the expert statements were on average longer (75 seconds) than the news items containing the vox pops (58 seconds). Differences existed due to variations in speaking speed and pauses between sentences, yet the actual scripts were as identical as possible.

The experiment uses a 2 (public opinion source: expert or vox pops) x 2 (viewpoint: pro-bike or pro-car) design. We chose to include only pro and contra viewpoint statements, as the study of Beckers, Walgrave, and Van den Bulck (2018) found that the large majority (73 %) of news items only presented one viewpoint through vox pops. In Table 1, an overview of the different conditions and the number of participants in each condition can be found.

Table 1: Experimental conditions.

Condition	Source	Viewpoint	*N*
1	Vox pops	Pro-bike	184
2	Vox pops	Pro-car	186
3	Expert	Pro-bike	182
4	Expert	Pro-car	197

Several mechanisms were used to control for actual exposure to the news clips. First, the time (in seconds) spent on the page displaying the news clip was measured and the button to go to the next page appeared after one minute. Second, the playback control buttons were disabled, making it impossible to skip forward or go back in the news item. Only participants who watched the entire news clip were included in the analyses.

Dependent variables

We measured news item *attractiveness* using the question: "We are interested in your opinion about the news item you just saw. Please indicate to what extent

you thought the news item met the following characteristics: The news item was: 'attractive'." This question was followed by a five-point scale (going from 1 = totally disagree to 5 = totally agree). News item trustworthiness was measured using the same 5-point scale containing three items: 'trustworthy'; 'honest' and 'credible' (based on: Hovland and Weiss, 1951; Ohanian, 1990). The scale was found to be reliable, Cronbach's α = 0.88. Higher scores on this variable indicate a higher perceived trustworthiness of the news item.

Next, we measured participants' *personal opinion* using the question: "We are interested in your own opinion. What do you prefer: investing in bicycle highways or investing in highways?", followed by a 7-point scale (going from strongly in favor of investing in cycling highways [pro-bike] to strongly in favor of investing in regional highways [pro-car]). Higher scores on this variable indicate a personal opinion more pro-car. After this question about participants' personal opinion, participants' *perceived public opinion* was measured by asking: "Next, when you think of the Flemish population, what do you think is the preference of the majority of the Flemings; investing in bicycle highways or investing in regional highways?", using the same 7-point scale. Higher scores on this variable indicate a perception of public opinion as being more pro-car. Across conditions, participants' perceived public opinion is more pro-car (M = 4.49, SD = 1.59) than their personal opinion, which is more pro-bike (M = 2.96, SD = 1.79).

Sample and procedure

The study was completed by 749 participants belonging to a panel (University of Antwerp web-based electoral panel), which contains a diverse group of Flemish citizens in terms of gender, age, education, and political orientation. Of these 749 participants, 69.3 % are male, 30.7 % female. 75.5 % of the sample has finished higher education after secondary school (university or non-university), so male, highly-educated people are overrepresented. Respondents are on average 54 years old (SD = 14.11). Political leaning was measured using an 11-point left–right ideology self-placement scale with the following question: "In politics, the terms 'left' and 'right' are often used. Could you describe your own views on a scale from 0 to 10, in which 0 indicates 'left', 5 'center' and 10 'right'?". The mean score for this variable is 5.71 with a standard deviation of 2.54.

Respondents were assigned randomly to the different experimental conditions, and there are no differences between the conditions for the mentioned socio-demographics. There is also no difference between conditions in the left–right leaning of the participants. Participants were told that the research investigated the quality of Flemish television news. After watching the stimulus clip and

completing the questionnaire with the dependent variables, participants were debriefed about the real goal of the experiment.

Manipulation check

Before initiating the experiment, a manipulation check was conducted to test whether the experimental manipulations succeeded. 62 people with diverse characteristics for age and gender participated in the manipulation check. First, respondents were questioned about the realism of the news item, using a 10-point scale going from totally unrealistic (1) to totally realistic (10). The news items were rated as satisfactorily realistic: $M = 7.46$, $SD = 1.78$. Respondents also had to indicate how many sources were interviewed in the news item. In the vox pop conditions, 30 people (96.8 %) correctly identified the number as "4", one respondent answered "3". In the expert conditions, 29 respondents (96.7 %) correctly answered "1", one person incorrectly indicated "3". All people in the pro-car conditions correctly indicated the viewpoint in the news item to be pro-car. In the pro-bike conditions, 97.7 % of the respondents correctly indicated the viewpoint to be pro-bike. People exposed to the expert conditions were asked whether they remembered the function of the expert. Six people did not answer the question, all other people (25) mentioned "VSV" or function descriptions such as "(traffic) expert" or "researcher". The manipulations thus succeeded and were sufficient for further analysis.

3 Results

To test the hypotheses under study, we use 2-way independent ANOVAs. The nature of the public opinion information (expert or vox pops) and viewpoint are included as independent variables. Perceived news item attractiveness, perceived news item trustworthiness, perceived public opinion and personal opinion are the dependent variables. The respondents' age, gender, education and political leaning in terms of left–right division are added as control variables in the models. The ANOVA tables can be found in appendices A to C.

News item evaluation

The results for news item attractiveness are displayed in Appendix A. Of the socio-demographic variables, age is found to be the only one influencing news-item attractiveness: Older participants perceived the news item as being more attractive compared to younger ones, $F(1, 512) = 4.11$, $p < 0.05$, $\eta^2 = 0.008$. None of the other socio-demographic variables has a significant influence on how attractive the news item is deemed by the participants. Participants' political leaning also has no influence. There is a main effect of viewpoint on perceived news-item attractiveness. In general, respondents are more positive about the pro-bike news items ($M = 3.27$, $SD = 0.82$) than about the pro-car items ($M = 3.04$, $SD = 0.87$), probably because this is closer to their own viewpoints on the topic, $F(1, 512) = 11.57$, $p < 0.001$, $\eta^2 = 0.022$. H1 held that audiences would perceive a news item with vox pops as more attractive than a news item containing an expert. However, as also visualized in Figure 1, we find that respondents perceive the news items containing the expert-statement as being more attractive ($M = 3.26$, $SD = 0.78$) compared to the news item containing vox pops ($M = 3.03$, $SD = 0.78$), independent of the viewpoint that was given in the news item; $F(1, 512) = 12.81$, $p < 0.001$, $\eta^2 = 0.024$. So, against our expectations, news items containing vox pops are not perceived as being more attractive by the participants than news items containing expert statements providing statistical information. Our first hypothesis, consequently, has to be rejected.

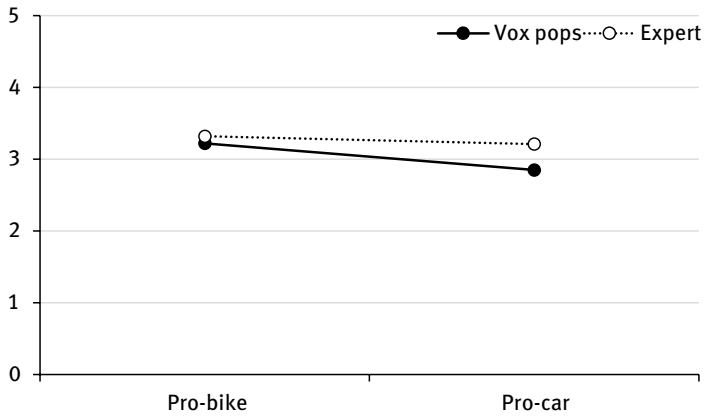

Figure 1: Perceived attractiveness of news items based on public opinion information and viewpoint (1 = not attractive at all; 5 = very attractive).

Regarding the perceived trustworthiness of the news item (Appendix A), we find no differences between different socio-demographic groups. We do find a main effect of viewpoint: People who saw a news item containing pro-bike viewpoints perceive the news items as being significantly more trustworthy (M = 3.46, SD = 0.87) than people exposed to a news item containing pro-car viewpoints (M = 3.32, SD = 0.92), $F(1, 511) = 4.89$); $p < 0.05$, $\eta^2 = 0.009$. However, the largest effect size is found for the nature of the public opinion information: $F(1, 511) = 53.15$); $p < 0.001$, $\eta^2 = 0.094$. When an expert discussed statistical public opinion information, participants rate the news item as significantly more trustworthy (M = 3.64, SD = 0.79) than when vox pops gave their point of view (M = 3.14, SD = 0.94). The results are visualized in Figure 2, where it can be seen that the expert news items receive consistently higher trustworthiness scores compared to the vox pop items.

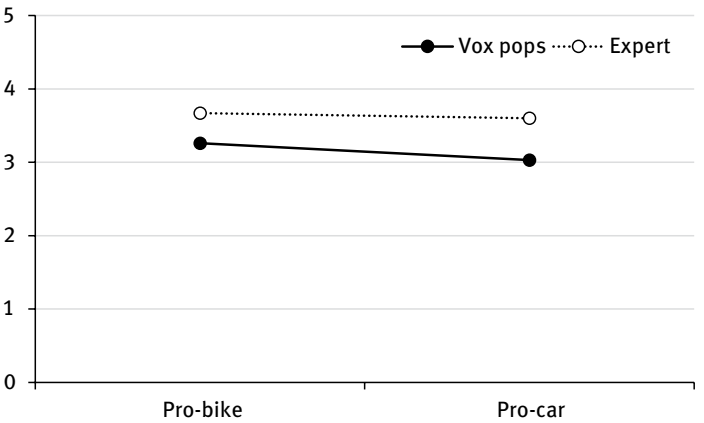

Figure 2: Perceived trustworthiness of news items based on public opinion information and viewpoint (1 = not trustworthy at all; 5 = very trustworthy).

Perceived public opinion

Our second hypothesis states that vox pop statements influence participants' perceived public opinion more than expert statements containing statistical information. The results of this analysis can be found in Appendix B. Here, we also do not find effects of the socio-demographic variables. As expected, the nature of the public opinion information (expert or vox pops) as such does not significantly affect perceptions of public opinion. We do find a strong main effect of viewpoint: Participants exposed to pro-car viewpoints perceive public opinion to be significantly more pro-car (M = 5.10, SD = 0.10) than participants exposed to pro-bike

viewpoints (M = 3.81, SD = 0.10), regardless of the source giving the information; F(1, 519) = 118.510); $p < 0.001$, $\eta^2 = 0.186$. People are influenced in the direction of the viewpoint given, both in the vox pop and the expert conditions. When including the interaction terms in Model II, we do not find the hypothesized (H2) interaction effect of public opinion information (expert or vox pops) and viewpoint. There is no difference in perceptions after exposure to pro-bike viewpoints given by vox pops (M = 3.89, SD = 0.13) or an expert (M = 3.73, SD = 0.13). The same is true for respondents exposed to the pro-car viewpoint ($M_{\text{vox pops}}$ = 5.10, $SD_{\text{vox pops}}$ = 0.13; M_{expert} = 5.11, SD_{expert} = 0.13), F(1, 519) = 0.574); $p > 0.05$, $\eta^2 = 0.001$. It is thus not the case that vox pops implicitly representing public opinion are more influential than an expert giving explicit public opinion information. So, both the vox pop and expert accounts affect perceived public opinion but are found to be equally influential, as can be seen in Figure 3.

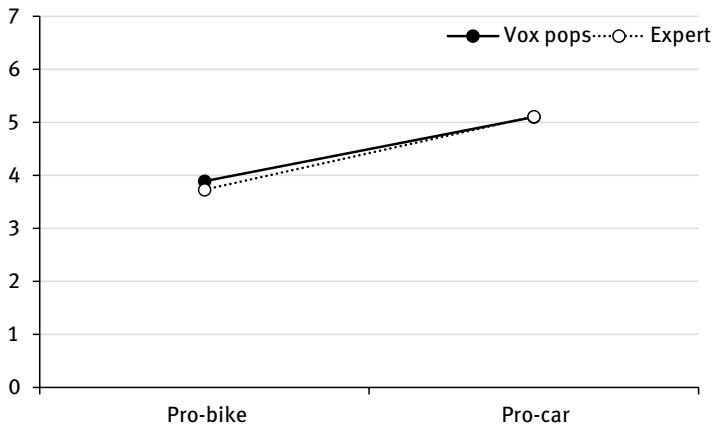

Figure 3: Perceived public opinion based on public opinion information (vox pops or expert) and viewpoint (1 = strongly pro-bike; 7 = strongly pro-car).

Personal opinion

Our third and last hypothesis predicts that vox pops affect participants' personal opinions more than expert statements providing statistical public opinion information. The table in Appendix C again shows that age, gender, and education do not exert an effect. However, while the left–right placement of participants did not matter in explaining perceptions of public opinion, we do find a main effect on personal opinion. The more left-wing participants are, the more pro-bike their personal opinion. This is the strongest predictor explaining differences in

personal opinion: $F(1, 519) = 31.04$, $p < 0.001$, $\eta^2 = 0.056$. Similar to the results for perceived public opinion, we find a main effect of viewpoint on participants' personal opinion, as can be seen in model I. Respondents exposed to pro-car viewpoints are significantly more pro-car after exposure to the news item ($M = 3.19$, $SD = 0.11$) than respondents exposed to pro-bike viewpoints ($M = 2.85$, $SD = 0.12$), $F(1, 519) = 10.36$, $p < 0.001$, $\eta^2 = 0.02$.

While we did not find an interaction effect of news source and viewpoint on perceived public opinion, we do find this interaction to exert a significant influence on people's personal opinion, as can be seen in model II. This interaction is visualized in Figure 4. This graph shows that there is no difference between the expert conditions; people's personal opinion does not differ between conditions containing the pro-car expert ($M = 3.12$, $SD = 0.15$) or the pro-bike expert ($M = 3.13$, $SD = 0.16$). There is an effect of the vox pop viewpoints on participants' personal opinion: people exposed to pro-car vox pops ($M = 3.26$, $SD = 0.15$) were significantly more pro-car than participants exposed to pro-bike vox pops ($M = 2.57$, $SD = 0.16$); $F(1, 519) = 5.231$, $p < 0.05$, $\eta^2 = 0.01$. Hence, people's personal opinion is influenced more by vox pop statements than by the expert statements, especially for pro-bike statements, in line with our third hypothesis. It thus seems that it is not merely the viewpoint that matters, but who gives the viewpoint about public opinion and how matters as well. Vox pop statements have a stronger influence on people's personal opinion than expert statements providing statistical information.

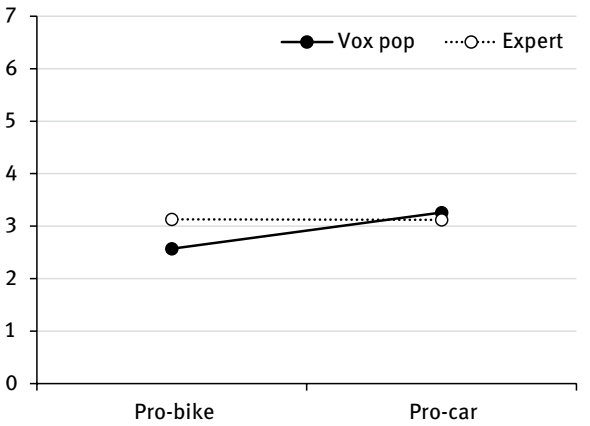

Figure 4: Interaction effect of public opinion information (vox pops or expert) and viewpoint on personal opinion (1 = strongly pro-bike; 7 = strongly pro-car).

4 Conclusion and discussion

In the exemplification literature, it has been concluded almost consistently that vivid exemplars are more influential compared to—often more valid—base-rate information. Using an experimental design, this paper aims to contribute to the exemplification field by investigating when and how base-rate information might be more influential, that is, by making the base-rate information more vivid.

This paper showed that vivifying statistical base-rate information by using a televised expert account is able to influence people's perceived public opinion in the same way as vox pop statements. It thus seems that the vivid direct quotation of sources plays a role in their influence, as most earlier studies found vox pops to be more influential than static base-rate information (e. g., Zillmann and Brosius, 2000). While we did not find a difference between expert-accounts and vox pop statements regarding participants' perceived public opinion, we did find participants' personal opinion to be influenced more strongly by the more implicit vox pop statements than by the statistical information given by an expert. This finding is in line with the study of Lefevere et al. (2012), who also found vox pops to be more influential than experts.

The influence of vox pops and other exemplars in the news is often explained by their apparent authenticity and trustworthiness. When sources are considered trustworthy, their effect on audience perceptions and judgments would increase (Pornpitakpan, 2004). Because vox pops are apparently randomly selected ordinary citizens, they are less likely to be seen as advancing any agenda in a news item. However, in this study, we find that a news item containing an expert providing statistical information about public opinion is perceived as being more trustworthy than vox pop statements. A possible explanation for this finding could be that the expert gave very specific numerical information, which has been found to increase people's likeliness to perceive a message as objective (Porter, 1995). This is an interesting finding, however, as it goes against many of the assumptions often made about the mechanism of vox pops' influence. Apart of them being vivid and trustworthy, there thus might be other factors that make them more influential than other sources. It could be that people do not take the vox pops very seriously and do not process them in a critical manner, causing several heuristics to be activated. Consequently, the representativeness heuristic which states that people tend to generalize the information given by exemplars (in this case vox pops) to the entire population (Brosius, 2003, p. 39; Zillmann and Brosius, 2000) might come into play. On top of that, research has also shown that people are bad at interpreting more valid quantitative information and often do not take the effort to process it thoroughly, especially when involvement with the news topic is low (Tversky and Kahneman, 1971), which might have been the case in our experiment.

Although we believe that the nature of this experiment using unique television stimuli and focusing on possible differences in perceived attractiveness and trustworthiness provides valuable new insights, it also has several limitations. One of the main limitations is the lack of a real control condition. Because of this, we were only able to compare news items containing public opinion information provided by experts or vox pops with each other but cannot compare the results to news items in which this public opinion information is absent. Moreover, in a way, we gave the vox pops an advantage effects-wise as they all provided the same opinion, whereas the experts provided a more nuanced image of public opinion. However, one-sided vox pops are most prevalent in real life (Beckers, Walgrave, and Van den Bulck, 2018), and we still found the expert statement to be equally influential on public opinion perceptions, which increases our confidence in the finding that vivifying base-rate information might play a role in stimulating their effect. A third limitation is that only one news issue (investment in traffic infrastructure) was used. We believe, however, that increasing the stimuli breadth would generate similar results. Earlier research found the effects of vox pops on perceived public opinion and personal opinion to be consistent across news issues, varying news issues in terms of personal relevance and sensitivity (Brosius and Bathelt, 1994; Lefevere et al., 2012; Zerback and Fawzi, 2017). Furthermore, based on this study, we cannot disentangle whether we can ascribe the influence of the expert statements to the statement itself (statistical information) or the speaking source (the expert), or a combination of both. Previous studies did find that statistical information alone was often not able to match the vox pop effect (Zillmann and Brosius, 2000). Additional research is needed to disentangle these factors and gain a better understanding of the underlying mechanisms of the found effects.

The findings of this study have implications for journalism practice. Previous research almost consistently found vox pops to be more influential than base-rate information (Brosius, 1999; Brosius and Bathelt, 1994; Zillmann and Brosius, 2000). However, this experiment found that using a more vivid expert interview providing statistical base-rate information did help to make the numerical base-rate information more influential. Therefore, whenever specific—valid—numbers are available, journalists could turn to more objective types of information about the actual distribution of opinions, such as polls or statistics, but use more vivid and direct ways to present this information.

If anything, this experiment has shown that journalists should be wary of how to present public opinion in the news and through whom. The nature of the public opinion information matters. Certainly, the use of vox pops, who are mostly included in news items for stylistic or economic reasons, should be approached with extra caution, as they are not representative of public opinion, but do exert

an influence on audiences' perceived public opinion and personal opinion. This is especially so since this study shows that vox pops are not even considered by audiences as being particularly attractive.

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Appendix A

Analyses of variance with perceived news item attractiveness (1 = Not attractive at all; 5 = Very attractive) and perceived news item trustworthiness (1 = Not trustworthy at all; 5 = Very trustworthy) as dependent variables.

	Perceived attractiveness				**Perceived trustworthiness**			
	Sum of Squares	*df*	F	η^2	Sum of Squares	*df*	F	η^2
Age	2.753*	1	4.114	0.008	0.543	1	0.731	0.001
Gender (= female)	0.811	1	1.212	0.002	0.526	1	0.709	0.001
Level of education (high)	1.397	1	2.088	0.004	18.18	1	2.449	0.005
Political leaning (right)	1.129	1	1.687	0.003	0.107	1	0.144	0.000
Viewpoint (pro-car)	7.762***	1	11.597	0.022	3.668*	1	4.940	0.010
Statement source (= expert)	8.572***	1	12.808	0.024	39.469***	1	53.153	0.094
Viewpoint * statement source	0.912	1	1.363	0.003	0.632	1	0.851	0.002

*** $p < 0.001$; * $p < 0.05$

Adjusted R Squared perceived attractiveness = 0.05

Adjusted R Squared perceived trustworthiness = 0.10

Appendix B

Analysis of variance with perceived public opinion as dependent variable (1 = strongly pro-bike; 7 = strongly pro-car).

	Model I				**Model II**			
	Sum of Squares	*df*	F	η^2	Sum of Squares	*df*	F	η^2
Age	7.348†	1	3.681	0.007	7.276†	1	3.642	0.007
Gender (= female)	0.214	1	0.107	0.000	0.154	1	0.077	0.000
Level of education (high)	3.613	1	1.81	0.003	3.673	1	1.838	0.004
Political leaning (right)	0.114	1	0.057	0.000	0.229	1	0.114	0.000
Viewpoint (pro-car)	236.975***	1	118.717	0.186	236.755***	1	118.510	0.186
Statement source (= expert)	0.835	1	0.418	0.001	0.891	1	0.446	0.001
Viewpoint * statement source					1.146	1	0.574	0.001

† p <0.10; *** p < 0.001
Adjusted R Squared Model I = 0.19
Adjusted R Squared Model II = 0.19

Appendix C

Analysis of variance with personal opinion as dependent variable (1 = strongly pro-bike; 7 = strongly pro-car).

	Model I				**Model II**			
	Sum of Squares	*df*	F	η^2	Sum of Squares	*df*	F	η^2
Age	0.002	1	0.001	0.000	0.009	1	0.003	0.000
Gender (= female)	0.219	1	0.078	0.000	0.512	1	0.183	0.000
Level of education (high)	3.183	1	1.128	0.002	2.983	1	1.066	0.002
Political leaning (right)	79.004***	1	27.998	0.051	86.885***	1	31.041	0.056
Viewpoint (pro-car)	28.736**	1	10.184	0.019	28.997**	1	10.36	0.020
Statement source (= expert)	2.691	1	0.954	0.002	3.055	1	1.091	0.002
Viewpoint * statement source					14.642*	1	5.231	0.010

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Adjusted R Squared Model I = 0.07

Adjusted R Squared Model II = 0.07