

# What Vox Pops Say and How That Matters

## Effects of Vox Pops in Television News on Perceived Public Opinion and Personal Opinion

Interviews with ordinary people on the street are commonplace in everyday news coverage. These vox pops often voice an explicit opinion or talk about personal experiences. Editorial guidelines exist about the way they should be introduced, as they are not representative of the population. Drawing on an experiment using television news items, we test the influence of vox pop characteristics on perceived public opinion and personal opinion. Results show that vox pop viewpoints have a substantial influence. Moreover, vox pops stating opinions are more influential than vox pops giving personal testimonies. No influence was found of the vox pops' introduction.

Keywords: exemplification; experiment; man on the street; public opinion; television news; vox pops

Interviews with the ordinary man or woman on the street about the news of the day are rising in everyday news coverage (De Swert, Walgrave, Hooghe, Uce, & Hardy, 2008; Kleemans, Schaap, & Hermans, 2015). These brief interviews are called “vox pops”, “man on the street interviews” or “popular exemplars” and are used to represent the general population in the news. Most of the time, vox pops are not taken very seriously by academics and journalists as they are often perceived as an indicator of news tabloidization and sensationalism (Hendriks Vettehen, Nuijten, & Beentjes, 2005; Kleemans et al., 2015). They are regularly seen as representative of the decline of news quality, typifying the economic choice of media to personalize the news and to focus on a human-interest approach (Skovsgaard & van Dalen, 2013). However, studies do exist in which authors conclude that vox pop statements can have considerable influence on people’s perceptions of public opinion and even on their personal opinions, as people tend to generalize these statements to the entire population (e.g., Perry & Gonzenbach, 1997; Zillmann & Brosius, 2000).

Earlier research studying vox pops’ influence often departed from exemplification theory and found effects of vox pop statements on several audience judgments (e.g., Arpan, 2009; Daschmann, 2000; Gibson & Zillmann, 1994). Nearly all of the effects research is consequently based on the assumption that vox pops are influential because they increase a news item’s vividness and make it more personal. Previous research therefore treated all vox pops the same. However, vox pop statements can take two forms: whereas some vox pops only give a personal testimony (e.g., “I go to work by bike every day”), others give explicit opinions (e.g., “I think the government should invest in bicycle infrastructure”). In the latter case, they become an explicit representation of public opinion in the news and in these instances they are expected to do more than just add vividness.

Media portrayals of public opinion mainly provide individuals’ primary information sources about what the population thinks about an issue (Gunther, 1998; Moy & Scheufele,

2000). Therefore, the media can contribute to what audiences perceive as the majority opinion. Journalists have several means at their disposal to represent public opinion in the news. These include, amongst others, opinion polls, vox pops, demonstrations, or mere inferences to public opinion without providing further evidence (Lewis, Inthorn, & Wahl-Jorgensen, 2005). Vox pops are one of the most prevalent representations of public opinion as they are cheaper and easier to gather than most of these other public opinion expressions. Vox pops almost consistently have been found to be more influential than other displays of public opinion, such as inferences and polls (Brosius & Bathelt, 1994; Daschmann, 2000; Zillmann & Brosius, 2000).

The media seem to be aware of the possible influence of vox pops. Several broadcasters have formulated guidelines about them, emphasizing that generalizing language regarding vox pops should be avoided, especially in political news (BBC, 2014; VRT, 2015). However, previous research has found that vox pops are mostly presented with little to no introductory or contextualizing information, and if they are introduced in the news, it is often done in a very generalizing way, such as: “all Belgians agree with...” (Beckers, 2016).

This study goes beyond previous experiments that mostly compared vox pops with other sources or representations of public opinion and only looked at the mere presence of vox pops. We already know that vox pop statements are influential. However, no research has studied whether the introduction of the vox pops is able to moderate their influence, as would be expected based on editorial guidelines put forward by broadcasters. Moreover, this study goes beyond vox pops’ viewpoints and analyzes whether the format of the vox statements (opinion or personal testimony) is important in explaining their influence. Using an experimental design, we will provide a new understanding of the effects vox pops have in television news on people’s perceived public opinion and personal opinion.

### **Vox pop influence**

Vox pops are one of the most prevalent subtypes of exemplars. Exemplars are used to illustrate an event or issue that is the subject of a news story and are used to add personal stories to a news item (e.g., a testimony from a victim; Arpan, 2009; Zillmann & Brosius, 2000). Zillmann, Perkins, and Sundar (1992) were probably the first to conduct an experiment testing the effect of exemplars. They presented participants with a print story with base-rate information stating that one-third of all people participating in a certain diet regained weight. Three different versions of the article were created: one where all the participants were said to have regained weight, one where one-third of participants were said to have regained weight, and one where half of the participants were said to have regained weight. It was concluded that people forgot the base-rate information and relied their judgment more on the statements of the exemplars, in this case the participants of the diet. Many similar subsequent experiments confirmed these results, consolidating the effects on audiences of exemplars in general and vox pops in particular (Gibson & Zillmann, 1993), even over time (Brosius & Bathelt, 1994; Gibson & Zillmann, 1994). Vox pops consistently have been found to influence perceptions of issues, even when accurate statistical information about an issue—sometimes going explicitly against the vox pop viewpoints—is provided in the same story (Brosius & Bathelt, 1994; Zillmann & Brosius, 2000). Solid vox pop effects were established on several audience judgments such as perceived media credibility (Arpan, 2009), perceived severity of an issue (Gibson & Zillmann, 1994), perceived public opinion (Arpan, 2009; Daschmann, 2000; Perry & Gonzenbach, 1997), and even people's personal opinions (Daschmann, 2000; Lefevere et al., 2012).

The effect of vox pops might be explained by the heuristic processing of information (Chaiken, 1980; Zillmann & Brosius, 2000), which stands in contrast with what is called systematic information processing. In the latter case, people process information carefully and consciously, resulting in sensible and thoughtful judgments. However, people are not always able or motivated to process all information in a systematic manner (Chaiken, 1980). In the

news specifically, large amounts of information are shown and people consequently do not process all information to the same degree. As a result, evaluations and judgments of issues are often made without apparent elaboration and heuristics play an important role in this process, especially for topics that are not particularly important for recipients (Zillmann & Brosius, 2000, p. 39).

For vox pops specifically, it is expected that heuristics play a large part, as people probably do not pay much attention to them (Brosius, 2003). The main heuristic used to explain vox pop influence is the “representativeness heuristic,” which causes people to make generalizations about the whole population when presented with a typical sample of a population (Hamill, Wilson, & Nisbett, 1980; Tversky & Kahneman, 1971). Hence, when people are presented with an apparently random sample of vox pops, they tend to perceive them to be representative of the entire population. Secondly, the ‘availability heuristic’ comes into play. Information that is easily accessible from memory has a larger influence on decision making. Applied to the possible effects of vox pops, the availability heuristic is often operationalized in terms of vividness. The more vivid information is, the bigger its role in information processing and several studies found empirical support for the existence of this heuristic (Zillmann & Brosius, 2000, p. 44; Koch & Zerback, 2013). We expect these persuasive processes to lie at the foundation of vox pops’ influence, not only on the judgment of issues, but also on people’s own attitudes.

This research focuses on two audience effects: a person’s perception of public opinion and his/her personal opinion. These are potentially the two most consequential effects a vox pop can have. Several studies already established the effects of vox pops on audience perceptions of the majority opinion (Brosius & Bathelt, 1994; Zillmann & Brosius, 2000). Although over time perceptions of public opinion might alter people’s personal opinions, some studies also analyzed the direct effect of vox pops on personal opinions and found a—

sometimes small—effect (Brosius & Bathelt, 1994; Daschmann, 2000; Perry & Gonzenbach, 1997). This effect on personal opinions systematically was found to go in the same direction as the effect on perceptions of public opinion. As such, we do have reason to believe that vox pops do not solely have cognitive effects on perceived public opinion, but can have persuasive effects as well. These persuasive effects of vox pops on opinions are even more important, as people may act accordingly and change their intentions and behaviors. Certainly regarding political topics, changes in opinions might potentially be consequential. Several studies have already found effects of people’s attitudes on, for instance, party preference, voting intention, and even voting behavior (Arcuri, Castelli, Galdi, Zogmaister, & Amadori, 2008; Friese, Smith, Plischke, Bluemke, & Nosek, 2012; Glasman & Albarracín, 2006).

Most of the aforementioned studies focused on print news. This study focuses on vox pops in television news as they are much more prevalent here (Lewis et al., 2005) and because visual stimuli are expected to be more influential than print stimuli (Graber, 1996; Paivio, 2013). To date, only two studies exist that focused specifically on the influence of vox pops in television news, and they found particularly strong effects (i.e., Lefevere et al., 2012; Perry & Gonzenbach, 1997). Perry and Gonzenbach (1997) constructed a television news item with three vox pop viewpoint conditions (for, against, and mixed), and they concluded that audience perceptions of public opinion and personal opinions were influenced in the direction of the vox pop statements. In the control condition, they concluded people to be influenced in the direction of the statements that received the most airtime. The viewpoint that received the most attention was the most influential. Lefevere et al. (2012) conducted a web-based television news experiment and were one of the first to compare the influence of vox pops with other news sources; namely, experts and politicians. They found vox pops to be more influential than the elite sources, but only studied people’s personal opinions.

Almost all empirical studies have shown that vox pops have an influence on perceptions of public opinion and sometimes found an effect on people's personal opinions—specifically when using television stimuli. Consequently, to start this study, we want to replicate previous studies and consolidate the effect of vox pop viewpoints on perceived public opinion and personal opinions. Based on the abovementioned theoretical arguments and empirical evidence, we formulate hypotheses 1a and 1b.

**H1a:** Participants' perceived public opinion is influenced in the direction of the vox pop viewpoints

**H1b:** Participants' personal opinions are influenced in the direction of the vox pop viewpoints

Previous research studying vox pop effects treated all vox pops the same. However, not all vox pops that appear in the news have a similar function. Beckers, Walgrave and Van den Bulck's (2018) research of Flemish television news found that vox pops were used as an explicit public opinion tool (e.g., "I think investing in regional roads is top priority") in half of the news items (46.7%), whereas in the other half of the news items the vox pops only related to personal stories without stating an explicit opinion (e.g., "I fell off my bike last week due to a hole in the bicycle path"). Moreover, in political news, vox pops were used as a public opinion tool in a large majority of the cases (75.3%). Most vox pop effects literature departed from the assumption that vox pops are influential because of their vividness (e.g., Arpan, 2009). This is often explained by the abovementioned "availability heuristic". Vox pops would be easy to identify with as a result of their close proximity to the audience and because of their recognizability (Kleemans et al., 2015; Pantti & Husslage, 2009). However, vox pops can also represent public opinion in the news. This raises the question of whether the format of the vox pop statement matters in their influence. If vox pops are used as a means to explicitly represent public opinion in the news, they are expected to certainly do more than just add vividness. When

vox pops only talk about their personal experiences without giving explicit opinions, they might have a lower chance to be seen as a representation of public opinion. However, previous effects research never distinguished between the two. This paper will study whether the format (opinion or personal testimony) of vox pop quotes matters in their influence on perceived public opinion and personal opinions. We expect that vox pops stating explicit opinions will be more influential than vox pops giving a personal testimony.

**H2a:** When vox pops express explicit opinions, participants' perceived public opinion is influenced more in the direction of the vox pop viewpoints than when vox pops give a personal testimony

**H2b:** When vox pops express explicit opinions, participants' personal opinions are influenced more in the direction of the vox pop viewpoints than when vox pops give a personal testimony

When vox pops are shown in the news, the small sample of citizens becomes a representation of the public in the news in the heads of audiences (Lewis et al., 2005; Myers, 2004). The question arises whether the way in which vox pops are introduced in the news is able to break this illusion of representation. Several newsrooms stress in their guidelines that vox pops can never really be an actual representative sample of the public and that journalists should therefore always contextualize vox pop interviews. BBC (2014), for instance, discourages journalists from using generalizing terminology when introducing vox pops in their news items: "Avoid terminology such as: 'We've been out on the streets to find out what the people of Manchester think about this...'. Better would be: 'Here's what some passing Mancunians thought about this...'. Other broadcasters also stress the fact that vox pops are not a good representation of the public or public opinion and that journalists consequently should not present them as being so (Deutsche Welle, 2013; VRT, 2015). This research will be the first to study whether providing context accompanying the vox pop interviews—and thus following



the aforementioned guidelines—is able to make people process the vox pop interviews in a more critical manner. The effect of vox pop viewpoints is predicted to become smaller when information about their non-representativeness is given, as this actively counteracts the representativeness heuristic. We expect that when vox pops are accompanied with an introduction stressing that the vox pops are not a good representation of the population, people will be influenced less by the vox pops. In this case, we hypothesize that people will tend to generalize the vox pop statements to a lesser extent. When they are introduced in a generalizing manner, as is often the case in reality, we expect that people will be influenced more in the direction of the vox pop viewpoints.

**H3a:** When vox pops are introduced in a generalizing manner, participants' perceived public opinion is influenced more in the direction of the vox pop viewpoints than when vox pops are introduced in a nuanced manner

**H3b:** When vox pops are introduced in a generalizing manner, participants' personal opinions are influenced more in the direction of the vox pop viewpoints than when vox pops are introduced in a nuanced manner

### **Method**

To study these hypotheses, we use a large-scale, Web-based, posttest-only experimental design consisting of 12 conditions. The experimental stimuli are 12 artificial news items apparently from the Flemish public service broadcaster Eén, but constructed especially for this experiment. The news items contain the real news anchor, journalists, and layout from the Eén newscast, making the items very realistic. It is almost impossible to distinguish between the stimulus news items and routine news items. All stimulus news clips can be accessed through this hyperlink: <http://bit.do/ExperimentVoxPops>.

The constructed news story has the investment in traffic infrastructure as a topic as this is a regular subject of political debate in Flanders. The news anchor introduces the news item stating that the Flemish government has to choose between investing in highways (regional roads) or bicycle highways due to budget cuts and that there is discussion in Parliament on the topic. The voice-over further introduces the news item and footage of bicycle highways and highways are shown. The vox pop interviews are introduced by the voice-over in three different ways, depending on the condition: nuanced (“*We conducted a non-representative survey and approached a few random Flemings to ask for their preference*”), generalizing (“*For the Flemings it is really clear*”), or without introduction. Next, the news item proceeds to the four vox pop interviews, whose viewpoints (pro-bicycle highway/pro-bike or pro-highway/pro-car) are manipulated. Also, the four vox pops give either explicit opinions (e.g., “I think the government should invest in the highways first”) or personal testimonies (e.g., “I recently fell off my bike due to a hole in the bike path”). The transcripts of the news items can be found in Appendix A. Note that both the opinions and personal testimonies are in accordance with one of the viewpoints (pro-car or pro-bike), but only the opinion statements contain an explicit opinion. We choose to look only at pro-bike or pro-car viewpoints, and not to include a balanced condition, for instance. Several authors have already investigated the influence of different viewpoint distributions (e.g., Aust & Zillmann, 1996; Perry & Gonzenbach, 1997). We acknowledge that in some cases, there might be more than two possible opinions or the points of view might be more nuanced. However, as previous research already found vox pops to be influenced in the direction of the majority viewpoint in more nuanced vox pop stimuli and because it was found that 73% of the news items containing vox pops only presented one viewpoint (Beckers et al., 2018), it was feasible to only include opposing viewpoint conditions.

*Insert Table 1 around here*

The experiment thus has a 3 (nuanced introduction; generalizing introduction; no introduction)  $\times$  2 (pro-bike viewpoint; pro-car viewpoint)  $\times$  2 (opinion format; personal testimony format) design. Table 1 shows the design of the experimental conditions as well as the number of subjects in each condition. All news clips lasted between 57 and 72 seconds, with an average of 64 seconds. The news items were shot by a professional camera team and the real microphone tip of the broadcaster was used, enhancing the overall realism of the news item. The vox pops in the news clips were chosen to represent a diverse sample of the population for age and gender and consisted of two male and two female interviewees. Moreover, all vox pops came from different age groups.

The experiment used an internet panel (blinded for review) comprising 7,468 Flemish (unpaid) respondents. The panel is not representative of the Flemish population, but contains a diverse group of people in terms of sex, age, and education. The respondents were recruited by email and data were collected from January 10–31, 2017. The total response rate after the experiment was 43.1% (N = 3,222). Of these 3,222 respondents, 2,175 people gave valid answers to the main variables and completed the survey (29.1% response rate), resulting in about 180 participants per condition, as can be seen in Table 1. After an introductory text requesting people to participate in the experiment, participants were randomly assigned to one out of 12 news clips. Actual exposure to the stimulus news items was controlled for by several tools. First, the time (in seconds) spent on the page displaying the stimulus news item was measured. Second, it was impossible to play back or skip forward in the news item, as the playback control buttons were disabled. Only respondents who watched the full news clip were included for further analysis.

Following the exposure to the stimulus news item, we measured participants' personal opinions 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 bicycle highways to strongly in favor of investing in highways). After this question about participants' personal opinions, 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 highways?*" using the same 7-point scale. These variables are the dependent variables. Three control variables were added to the models: participants' age, gender, and level of education. Car and bicycle use were also measured using a 6-point scale ("*Indicate how often you use the car [bicycle] as a means of transport,*" see Table 2). At the end of the survey, all respondents were debriefed about the fact that the news fragment they saw was fabricated for the experiment and the real goal of the research was explained.

Table 2 provides descriptive statistics of the sociodemographic variables as well as the variables that will be used in the analyses. Older, male and higher educated people were overrepresented in our sample. In the Flemish population, women make about half of the population, the average age is around 40 years old and around 30% has followed higher education (Statbel, 2018). However, as this is an experimental design, striving for representativeness was not our goal. The three sociodemographic variables age, gender and level of education are added in the model as control variables.

Regarding the first dependent variable, the distribution of the perceived public opinion in favor of bicycle highways (pro-bike) or highways (pro-car), we found that respondents, across conditions, think that the majority of Flemings prefer investing in highways over investing in bicycle highways after exposure to the experimental stimuli. Of all respondents, 59.7% think the majority of Flemings prefer investing in highways. Only 30.6% perceived public opinion as being more or less in favor of the investment of bicycle highways. With regards to personal opinions, a different—and even reversed—pattern becomes apparent. After exposure to the experimental stimuli, in general, the sample is mainly in favor of the investment in bicycle

highways: 66.5% of the respondents indicated that they prefer investing in bicycle highways, 48.8% even indicated having a strong to very strong pro-bike preference, and 7.9% marked having no preference. A minority of 25.5% indicated they favor investment in highways. The participants' perceived public opinion on the topic thus runs counter their personal opinions across conditions after exposure to the stimulus news items.

*Insert Table 2 around here*

### **Manipulation check**

Before starting with the actual data collection, a manipulation check was carried out on a different sample of respondents to test whether the experimental manipulations succeeded and whether the news items were perceived as being realistic. Two hundred and fifty-nine respondents were exposed to one of the 12 stimulus news items and had to answer several questions related to the specific experimental manipulations. All the manipulations succeeded and came out in the expected directions. Firstly, respondents had to indicate the number of sources that were interviewed in the news item. Of the respondents, 92.4% correctly identified the number of sources interviewed as four, and 7.6% indicated the number as three (probably because of recall problems or because they did not watch the entire news clip). We also asked respondents to rate the realism of the news items on a 0–10 scale (0 = totally unrealistic; 10 = totally realistic). Respondents rated the video clips as sufficiently realistic news items ( $M = 7.16$ ,  $SD = 1.92$ ). No significant differences in realism ratings were found across conditions. There were no differences based on gender, age and level of education for any of the manipulation checks. In the pro-car conditions, 93.4% of the respondents correctly indicated that the vox pop statements were pro-car. In the pro-bike conditions, 97.9% of the respondents gave a correct answer. Regarding statement format, 95.7% of the participants indicated

correctly when the respondents gave an opinion, and 95.6% were able to identify the personal statements. Lastly, the respondents had to answer whether the voice over indicated that the interviewed persons were a good representation of the population or not. Of the respondents from the conditions with the nuanced introduction, 75.8% indicated that the reporter said that the interviewees were not a good representation of the general population. To conclude, these results suggest that the experimental manipulations are sufficiently strong and that the clips are perceived as realistic.

## **Results**

To test the hypotheses of this study, two 2-way independent ANOVA's are conducted. The viewpoint, statement format, and introduction of the vox pops are included as independent variables. By looking at the interaction between the viewpoint and the two other factors in the model, we can assess whether statement format and introduction matter for the influence of the viewpoint that was portrayed by the vox pops. The respondents' age, gender, level of education, and bike and car use are added as covariates in the model. For each covariate, the parameter estimates were studied to analyze the direction of the effects. Two dummy variables were constructed for the nuanced and generalizing introductions, with "no introduction" as a reference category. First, the results of the variables on participants' perceived public opinion are discussed, followed by a discussion of the results of participant's personal opinions. The ANOVA tables for both dependent variables are added in Appendices B & C. Model I comprises all main effects, model II displays the full models including the interactions of interest in this study.

### **Perceived public opinion**

Table 3 shows that there is a significant effect of the level of education of the participants regarding perceived public opinion: the higher the level of education, the more they perceive

the majority of Flemings to be in favor of investing in highways (pro-car),  $B = 0.083$ ;  $t(0.024) = 3.400$ ,  $p < 0.01$ . Moreover, younger people perceive public opinion to be significantly more pro-car compared to older participants ( $B = -0.007$ ;  $t(0.002) = -2.897$ ,  $p < 0.01$ ). We also find a significant effect of car use: the more frequently people use their car, the more they perceive public opinion to be pro-bike ( $B = -0.067$ ;  $t(0.028) = -2.429$ ,  $p < 0.01$ ).

Regarding the variables manipulated in the experimental stimuli, it first stands out that the viewpoints of the vox pops have the strongest influence on people's perceived public opinion. We find that the viewpoints presented through the vox pops significantly alter perceptions of public opinion (Figure 1), replicating previous research. If participants are presented with pro-bike vox pop statements, their perceived public opinion is more pro-bike ( $M = 4.04$ ,  $SD = 1.55$ ) than when people are exposed to pro-car statements ( $M = 4.98$ ,  $SD = 1.34$ ),  $F(1,1) = 151.06$ ,  $p < 0.001$ , supporting Hypothesis 1a.

Second, as expected, we do not find a main effect of statement format. Of interest to our study is the interaction between statement format (opinion or personal testimony) and vox pop viewpoint. Indeed, we find a significant effect of this interaction,  $F(1,1) = 12.16$ ,  $p < 0.001$ . When participants are exposed to the pro-car vox pops, they are influenced more by vox pops giving explicit opinions ( $M = 5.07$ ,  $SD = 1.27$ ) than by vox pops giving a personal testimony ( $M=4.90$ ,  $SD=1.40$ ). The same is true for participants exposed to the pro-bike statements, they are influenced more by the opinion statements ( $M = 3.90$ ,  $SD = 1.53$ ) than by the personal testimonies ( $M = 4.18$ ,  $SD = 1.56$ ).

To present this graphically, we plotted the interaction between these two variables in Figure 2 and the effect is visualized by the higher steepness of the slope representing the opinion statements compared to the slope representing the personal testimonies. These results prove that it is not merely the vox pop viewpoint that matters in influencing people's perceived public opinion, but how a vox pop says it matters as well. Consequently, hypothesis 2a is accepted.

Third, we do not find the expected interaction effects of introduction and vox pop viewpoint. As can be seen in Table 3, both the interaction between viewpoint and the nuanced introduction dummy ( $F(1,1) = 1.20, p > 0.05$ ) and between viewpoint and the generalizing introduction dummy ( $F(1,1) = 0.40, p > 0.05$ ) are not significant. It thus seems that the effect of vox pops on people's perceptions of public opinion is not influenced by the way vox pops are introduced, which can also be seen in the graph in Figure 3, as both slopes almost fall together and have a comparable steepness. Hypothesis 3a is therefore rejected. When vox pops are introduced in a nuanced manner, participants' perceived public opinion is not influenced less in the direction of the vox pop viewpoints than when vox pops are introduced in a generalizing manner.

*Insert Table 3 around here*

*Insert Figures 1-6 around here*

### **Personal opinions**

In Table 4, ANOVA results for participants' personal opinions are displayed. People's preference for investing in bicycle highways (pro-bike) or regional highways (pro-car) is influenced significantly by their gender, with females having a higher personal preference for investing in bicycle highways ( $B = 0.259; t(0.086) = 3.013, p < 0.01$ ). As expected, car and bicycle use explain variations in people's personal opinions strongly and significantly. The more frequently people use their bicycles, the lower they score on the dependent variable, indicating more pro-bike personal opinions ( $B = -0.297; t(0.024) = -12.284, p < 0.001$ ). Conversely, the more frequently people use their cars, the more pro-car their opinions are ( $B = 0.237; t(0.032) = 7.337, p < 0.001$ ).

Next, we discuss the influence of the variables manipulated in our study. The viewpoint given by the vox pops again is influential, as can be seen in Figure 4. If participants are



presented with pro-bike statements, their personal opinions are significantly more pro-bike ( $M = 2.74$ ,  $SD = 1.76$ ) than when participants are exposed to pro-car statements ( $M = 3.26$ ,  $SD = 1.90$ ),  $F(1,1) = 34.69$ ,  $p < 0.001$ , supporting hypothesis 1b.

The interaction effect of vox pop viewpoint and statement format is also significant,  $F(1,1) = 5.37$ ,  $p < 0.05$ . Vox pops giving explicit opinions have a bigger influence on people's personal opinions than vox pop interviews in which interviewees speak about their own experiences. This can be seen in Figure 5, as the slope representing opinion statements is steeper than the slope representing personal testimonies. When participants are exposed to the pro-car vox pops, they are influenced significantly more by vox pops giving explicit opinions ( $M = 3.36$ ,  $SD = 1.94$ ) than by vox pops giving a personal testimony ( $M = 3.16$ ,  $SD = 1.85$ ). The same is true for participants exposed to the pro-bike statements; they are influenced significantly more by the opinion statements ( $M = 2.68$ ,  $SD = 1.76$ ) than by the personal testimonies ( $M = 2.80$ ,  $SD = 1.76$ ). These results confirm hypothesis 2b.

Lastly, we do not find the expected interaction effects of the introductions and vox pop viewpoints, rejecting hypothesis 3b. The interaction between viewpoint and the nuanced introduction dummy ( $F(1,1) = 0.19$ ,  $p > 0.05$ ) and between viewpoint and the generalizing introduction dummy ( $F(1,1) = 0.13$ ,  $p > 0.05$ ) were found to have no effect. The introduction of the vox pops thus does not alter the influence vox pop viewpoints have on participants' personal opinions, which can also be seen in the almost equally steep slopes in Figure 6. Although editorial guidelines urge journalists to provide a nuanced introduction accompanying the vox pops, doing so does not seem to be able to moderate the influence of vox pop statements for the general public. The effect of vox pops does not become smaller when information about their non-representativeness is given.

*Insert Table 4 around here*

## **Conclusion & Discussion**

The aim of this paper was to study whether the format and introduction of vox pops in television news play a role in the effect vox pop statements have on audiences' perceived public opinion and personal opinion. Next to studying the influence of what vox pops say, this experiment looked at whether how they say it is important in explaining their influence. Also, this research studied whether a contextualizing introduction about the vox pops is able to moderate their influence.

The first main finding is that the viewpoints given by the vox pops are influential, regardless of the other vox pop characteristics. Vox pops' distribution in terms of pro-bike and pro-car viewpoints exerted a clear influence on participants' perceived public opinion and personal opinions, confirming both hypotheses 1a and 1b. So, the direction of the vox pop viewpoint not only influences perceptions of public opinion, but also has a direct effect on people's personal opinions. Second, if the vox pops gave an explicit opinion, they influenced participants' perceived public opinion and personal opinions more in the direction of the vox pop viewpoints than when they gave a personal testimony, supporting hypotheses 2a and 2b. Third, we could not find the expected interaction effects of the introduction of the vox pops and the viewpoint given. Participants exposed to a nuanced introduction were not influenced to a lesser degree by the vox pop viewpoints as was indicated in hypotheses 3a and 3b. A nuanced introduction was not able to counteract or even moderate the influence of the vox pop viewpoint on participants' perceived public opinion or on their personal opinions.

In line with previous research, the findings provide support of vox pop influence on perceptions of opinion and opinions themselves (e.g., Arpan, 2009; Perry & Gonzenbach, 1997). These effects exist regardless of the introduction and format of those vox pop statements. All attempts to break the effects of these interviews with ordinary people in the news in previous studies have failed thus far (Brosius, 2003). Vox pop statements were already proven to be

influential irrespective of (statistical) base-rate information, other information about public opinion, or the strength of the vox pop arguments (Brosius & Bathelt, 1994; Daschmann, 2000). The effect of the viewpoints given by the vox pops appears to be very stable. Providing context, explicitly emphasizing that vox pops are not a good representation of the population, also does not seem to be able to reduce their influence for the general public. Providing a nuanced introduction does not help people avoid making generalizations about the whole population when presented with a typical sample of a population using vox pops (Hamill et al., 1980; Tversky & Kahneman, 1971).

However, contrary to what is often assumed in previous studies, we find that it is not only the mere presence of vox pops and the viewpoints they give that explain their effect. How vox pops say it is also of influence. This study went further than existing assumptions about the fact that vox pops are influential because they are vivid (Brosius, 2003; Kleemans et al., 2015; Nisbett & Ross, 1980) and finds that explicit opinion statements are more influential than personal testimonies. This is particularly relevant regarding political news, since it has been found that vox pops are used as an explicit public opinion tool most often here (Beckers et al., 2018). Moreover, opinions about political issues may have broader implications (e.g., party preference or voting behavior) than opinions about more soft news topics (e.g., a movie or the weather).

A few limitations of this study deserve to be mentioned. One of the main limitations of all experimental studies is their external validity. However, in this experiment, we took precautions to increase the validity of our findings. In the first place, the experimental manipulations were very realistic, using the real layout and journalists of the broadcaster. Secondly, the content of the news item and the quotes were presented to several journalists to verify their realism. Thirdly, in the manipulation check, we asked respondents about the realism of the news items, and the news items were found to be realistic.

Second, a more representative sample regarding age, gender and level of education might have allowed us to place more confidence in the findings. However, thanks to our large sample size we were able to control for several sociodemographic variables. Thought must also be given to the generalizability of the findings to other countries and media cultures. We expect that the specific characteristics of vox pops are country and culture specific, but the effects of the apparent representativeness of the vox pops—activating several heuristics—are expected to be universal and have been proven to exist across countries with different media systems, such as the US and Germany (Arpan, 2009; Brosius, 2003; Brosius & Bathelt, 1994; Gibson & Zillmann, 1993; Perry & Gonzenbach, 1997; Zillmann & Brosius, 2000).

Another limitation of experimental studies is that people are exposed to the stimuli in an “unnatural” context. Participants probably paid more attention to a news item than they otherwise would have when watching a full television newscast at home. However, this only strengthens our findings, as people probably looked at the news item in a more attentive and critical manner and thus paid more attention to, for instance, the nuanced introduction. Even in this situation we find the strong effect of vox pop viewpoints. Moreover, we only measured perceived public opinion and personal opinions at one point in time, so we cannot know whether the effect of the vox pops stands over time. However, previous studies did find vox pops’ effects to persist over time (Brosius & Bathelt, 1994; Gibson & Zillmann, 1994).

Another possible limitation of this study is the manipulation of the introduction. The lack of results for the introductions under study might be caused by the specific manipulation in this experiment. It might be, for instance, that the specific wording of the nuanced introduction (e.g., the referral to ‘random Flemings’) might not have been clear enough to the participants. However, it does seem that there is some effect of the introduction of vox pops in the news as we found a small main effect on perceived public opinion, so future researchers might study this using different manipulations. Lastly, this study only included vox pops with strictly

opposing opinions, future research might incorporate vox pops that are not unanimous or study what happens when there are more than two points of view. However, previous research including more diverse vox pop opinions also concluded that people were influenced in the direction of the vox pop viewpoints (Perry & Gonzenbach, 1997).

The findings of this experimental study have practical implications for the field of journalism. Although vox pops are added to news items by journalists as a way to enliven a news item, what the vox pops say matters. Because they are presented as a random sample of people, the illusion of representation is held up. Vox pops are, whether unconsciously or not, taken seriously by the audience. Journalists should be aware that the presented viewpoints influence audiences to a great degree and that subsequent swings in (perceptions of) opinion are substantial. Additionally, journalists should be aware that when vox pops are used as explicit public opinion tools, they are most influential. Knowing that perceptions of public opinion might influence peoples' willingness to speak out—if they think they are in the minority people tend to stay quiet—these findings raise concern on how public opinion is portrayed by journalists. And not only do we find vox pop viewpoints to have an influence on perceptions of public opinion, they also directly influence people's own opinions.

Several editorial guidelines already are in place urging journalists to include nuancing context with the vox pops, emphasizing their non-representativeness. However, this study found that even a really strong introduction emphasizing explicitly that vox pops are not a representative sample of the population is not able to reduce their effect. Journalists should thus be aware that following the existing guidelines is not enough as they do not have the anticipated effect. Nevertheless, journalists should still provide guidance associated with representativeness even if the audience in general is not impacted, since it is important journalists are aware of it and as it may impact some in the audience. Specifically for issues where journalists do not know the actual public opinion distributions, presenting different

points of view might help reduce misperceptions about reality among the public. Moreover, extra attention should be paid to vox pops in political news, as they are used as a public opinion display here more often than in other news and as they might be most consequential in this context (Beckers et al, 2018)

The results of this experiment should also be interpreted within the changing news environment, where traditional news media such as television play a smaller role and audiences' news consumption becomes more fragmented. This experiment tested the influence of one individual news clip. In reality, people are exposed to various flows of information on multiple platforms. However, if one news fragment at one moment in time exerts effects, the aggregate effect of several information sources in the real world might be even bigger. When consuming online news, people tend to look for information reinforcing their own opinions (Zillmann & Bryant, 2013) and Zerback and Fawzi (2017) found exemplification effects to also exist online. Recent discussions about phenomena such as "filter bubbles" raise worries about people being exposed to more of the same viewpoints online (Pariser, 2011), which might be consequential for what they perceive to be "the" public opinion.

In general, newsrooms should be aware that their choices regarding vox pops matter and that they are not just trivial, enlivening features. Journalists' selection of vox pops in the news has an influence on perceptions of social issues and opinions audiences have about them.

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## APPENDIX A. Transcripts of stimulus news items

### **Introduction news item (identical across conditions)**

*[News Anchor]*

A heated debate is going on in the Flemish Parliament about new investments in the Flemish traffic infrastructure. In the short term, a choice has to be made between further investments in the Flemish regional roads or in the expansion of the cycling infrastructure. Because of savings at the Flemish level, it is not possible to tackle both at the same time. The subject causes a lot of discussion.

*[Reporter]*

Extra money for so-called 'bicycle highways—direct bicycle connections between big cities— or additional investments in the regional roads: this decision imposes itself on the Flemish government, because there is no money to realize both options at the same time. A difficult choice for the Flemish government.

### **Introduction vox pops (experimental manipulation)**

*Nuanced:* We have conducted a non-representative survey and approached a few random Flemings to ask for their preference

OR

*Generalizing:* For the Flemings it is really clear

OR

*No introduction*

### **Vox pop interviews (experimental manipulation)**

Opinion pro-bike

- 1) “I think they should prioritize the weak road user, so investing in cycling highways.”
- 2) “I think that investments should be made in cycling highways first. Come on, a good mobility policy supports cyclists.”
- 3) “That’s not difficult. Those bicycle highways have to come first in my opinion.”
- 4) “A disgrace. As far as I am concerned, cyclists come first.”

OR

Opinion pro-car

- 1) “The news is always talking about traffic jams. I think they should first look at the regional roads, that's logical.”
- 2) “They may start to pay attention to the Flemish regional roads. I think that's more important than a cycling highway. “
- 3) “I would be happy if they finally took care of the regional roads, that's really important.”

- 4) "That's not difficult. Those regional roads have to come first in my opinion."

OR

Personal statement pro-bike

- 1) "I cycle to work every day. Last week I fell off my bike through a pothole in the bike path."
- 2) "Every truck, ordinary car, they drive right next to me when I ride my bike. I have often been frightened, yes."
- 3) "The bike paths are full of holes and bumps, I often have to do my best to stay upright."
- 4) "I regularly have had an accident because of the condition of the bicycle paths"

OR

Personal statement pro-car

- 1) "When I drive around in my car, I often almost had an accident because of the condition of the road."
- 2) "I live on a ten minute driving distance from my workplace, but I often sit in the car for half an hour because of the poor condition of the roads"
- 3) "When I am abroad, in the Netherlands, for instance, I notice the difference in the quality of the roads. Yes, it is much better there."
- 4) "Last year I broke my car tire due to a pothole in the road".

Table 1.

*Experimental conditions*

Condition	Introduction	Points of view of 4 vox pops	Statement format	N
1	Nuanced	Pro- Bike	Opinion	181
2	Nuanced	Pro- Car	Opinion	183
3	Nuanced	Pro- Bike	Personal testimony	176
4	Nuanced	Pro- Car	Personal testimony	178
5	Generalizing	Pro- Bike	Opinion	176
6	Generalizing	Pro- Car	Opinion	185
7	Generalizing	Pro- Bike	Personal testimony	179
8	Generalizing	Pro- Car	Personal testimony	182
9	None	Pro- Bike	Opinion	179
10	None	Pro- Car	Opinion	182
11	None	Pro- Bike	Personal testimony	189
12	None	Pro- Car	Personal testimony	185
Total				2175

Table 2.

*Descriptive statistics (N = 20.175)*

Variable	Frequency (%)	<i>M</i>	<i>SD</i>
<b>Sex</b>			
Male	70.6		
Female	29.4		
<b>Age (17–88)</b>		53.80	14.31
<b>Level of education</b>			
Primary education	0.5		
Secondary0. unfinished	4.2		
Secondary0. finished	19.0		
Higher education0. non-university	31.1		
Higher education0. university	42.7		
Other	2.4		
<b>Car use</b>			
Never	2.6		
A few times a year	4.2		
Monthly	5.6		
Weekly	17.9		
Several times a week	30.3		
Daily	39.4		
<b>Bike use</b>			
Never	11.7		
A few times a year	17.0		
Monthly	11.1		
Weekly	15.5		
Several times a week	22.6		
Daily	22.0		
<b>Perceived public opinion poststimulus (1–7)</b>		4.51	1.53
<b>Personal opinion poststimulus (1–7)</b>		3.06	1.86

Table 3.

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

Variable	Model I					Model II				
	Sum of Squares	df	Mean Square	F	$\eta^2$	Sum of Squares	df	Mean Square	F	$\eta^2$
Gender (male)	0.998	1	0.998	0.486	0.000	0.831	1	0.831	0.407	0.000
Level of education (high)	25.176	1	25.176	12.264**	0.006	25.098	1	25.098	12.292***	0.006
Age (old)	17.360	1	17.360	8.457**	0.004	18.473	1	18.473	9.047**	0.005
Car use (high)	11.769	1	11.769	5.733*	0.003	12.134	1	12.134	5.943*	0.003
Bicycle use (high)	0.026	1	0.026	0.013	0.000	0.011	1	0.011	0.005	0.000
Viewpoint	423.747	1	423.747	206.423***	0.096	308.452	1	308.452	151.063***	0.072
Statement format	0.953	1	0.953	0.464	0.000	0.885	1	0.885	0.434	0.000
Dummy nuanced introduction (=1)	0.037	1	0.037	0.018	0.000	0.047	1	0.047	0.023	0.000
Dummy generalizing introduction (=1)	9.721	1	9.721	4.736*	0.002	9.413	1	9.413	4.610*	0.002
Viewpoint * statement format						24.837	1	24.837	12.164***	0.006
Viewpoint* nuanced dummy						2.440	1	2.440	1.195	0.001
Viewpoint * generalizing dummy						0.810	1	0.810	0.397	0.000

\*\*\*  $p < 0.001$ ; \*\*  $p < .001$ ; \*  $p < .005$

Adjusted R Squared Model I = 0.110

Adjusted R Squared Model II = 0.114



Table 4.

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

Variable	Model I					Model II				
	Sum of Squares	df	Mean Square	F	$\eta^2$	Sum of Squares	df	Mean Square	F	$\eta^2$
Gender (male)	23.810	1	23.810	8.479**	0.004	24.548	1	24.548	8.753**	0.004
Level of education (high)	0.035	1	0.035	0.012	0.000	0.029	1	0.029	0.010	0.000
Age (old)	1.315	1	1.315	0.468	0.000	1.102	1	1.102	0.393	0.000
Car use (high)	153.343	1	153.343	54.607***	0.027	152.295	1	152.295	54.307***	0.027
Bicycle use (high)	421.211	1	421.211	149.998***	0.072	422.785	1	422.785	150.760***	0.072
Viewpoint	134.001	1	134.001	47.719***	0.024	97.274	1	97.274	34.687***	0.018
Statement format	0.004	1	0.004	0.002	0.000	0.001	1	0.001	0.001	0.000
Dummy nuanced introduction (=1)	1.845	1	1.845	0.657	0.000	1.884	1	1.884	0.412	0.000
Dummy generalizing introduction (=1)	8.101	1	8.101	2.885	0.001	8.294	1	8.294	2.958	0.002
Viewpoint * statement format						15.046	1	15.046	5.365*	0.003
Viewpoint * nuanced dummy						0.530	1	0.530	0.189	0.000
Viewpoint * generalizing dummy						0.362	1	0.362	0.129	0.000

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

Adjusted R Squared Model I = 0.161

Adjusted R Squared Model II = 0.162