Paying Not to Know? Examining Sources and Consequences of News Avoidance
Pre-Analysis Plan

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Much of information economics assumes that individuals value information instrumentally, yet there is accumulating evidence that this is not the full picture. The first goal of this project is to examine the costs individuals are willing to incur in order to gain or avoid information. We focus in particular on news consumption, and examine whether such tendencies are systematically related to individual group affiliation.

At the same time, there is widespread concern that news consumption by opposing groups is increasingly segregated and polarizing. One reason is selective exposure, the tendency to select like-minded news (Stroud, 2008). Since news is often persuasive (DellaVigna and Gentzkow, 2010), selective exposure may result in polarized views of reality. For example, liberals and conservatives may form different opinions if the former watch MSNBC and the latter watch Fox News. A second reason is motivated reasoning (Taber and Lodge, 2006). The argument here is that individuals who disagree with a given piece of news are less likely to be persuaded by it or engage with it (D'Amico and Tabellini, 2022). Therefore, liberals and conservatives would form different opinions even if, for instance, both groups watch CNN. A second objective of this project is to help us disentangle—and understand the interactions between—these two forces: people selecting different news and people interpreting news differently.

We develop a two-part online survey experiment. The first part elicits individual willingness to pay (WTP) for reading and understanding different news articles. The second part seeks to estimate the effect of news—including in particular the news people typically avoid—on knowledge and attitudes.

We will concentrate on the following questions: First, to what extent do individuals avoid unfavorable news (selective exposure), in the sense of being willing to forgo monetary rewards in order to avoid such news? Second, which news are people more likely to seek to avoid? In particular, are individuals less interested in news that reflects poorly on their ingroup? Third, to the extent that individuals avoid news, is that due to instrumental or intrinsic value? Fourth, given that individuals consume news, what are the differential effects (possibly due to motivated reasoning) of the same news on the attitudes of individuals who would typically consume—or avoid—them?

We approach these questions using a social identity framework, focusing on ingroup and outgroup-related preferences. We will study preferences in the context of the ongoing Israel-Gaza war, where it appears that individuals on the two sides of the conflict are exposed to very different information, and probably hold different beliefs, especially as pertaining to the casualties on the other side of the conflict.

1 Experimental Design

We will recruit two groups of participants: Israeli Jews, and Jordanians (including Jordanians of Palestinian descent). We expect Israeli Jews to more closely identify with Israel in the current Gaza war and expect Jordanians to more closely identify with Palestinians. We plan to recruit approximately 2,000 Israeli Jews and 500 Jordanians. The Israeli Jews will also be invited to a follow-up survey conducted in the days following the main survey. Throughout the paper, we will conduct the analysis jointly for Israelis and Jordanians when possible and also present the main results separately for Israelis and Jordanians.

1.1 Part 1: News avoidance

In the first part of the survey, we will explain to individuals that they will be exposed to a series of article headlines, all actual articles from CNN. One random article will be chosen and participants who correctly answer two out of three questions on the random article will receive a bonus reward. Along with the article a random price will be chosen and individuals will be asked how much they are willing to pay to read the article. Individuals will be

Table 1: Headlines shown to participants

Headline Topic / Headline Time Period	2010s	2023
Palestinian victims	2/5	1 constant + 2/8
Israeli victims	2/6	1 constant + 2/8
Ukrainian victims	2/4	3/5
Other disasters	1/3	1 constant + 1/3

Note: This table shows the types of headlines shown to participants. Each cell includes the number of headlines participants will be exposed to and the total pool of headlines from which the headlines will be randomly chosen. For example, our pool includes five headlines about Palestinian victims in the 2010s and each participant will be randomly exposed to two headlines. Three headlines will be shown to all participants as these articles will be used to analyze the effects of news consumption.

exposed to the article only if the amount they are willing to pay is larger than (or equal to) the random price. Since individuals receive the reward only if they answer the questions correctly, they will have an incentive to read the article if they are exposed to it.

We will first explain to participants the principle of WTP elicitation. We will (accurately) explain that individuals who read the article are very likely to receive the bonus reward, and those who do not read the article will probably not receive it. Therefore, participants will be forgoing money by setting a WTP lower than the bonus price. We will test that participants understand these principles using a series of comprehension questions. Participants who answer these questions incorrectly several times will be screened out of the survey. We will also exclude participants who fail an attention check, suspected duplicates and robots, and those who complete the survey unreasonably quickly.

Participants will then be exposed to around 18 headlines and will be asked how much they are willing to pay to read the article associated with each headline. Headlines will be chosen randomly from several subsets of articles, each covering similar topics at a similar period (e.g., a subset of articles on Israeli victims in the current conflict). Table 1 summarizes the planned number of articles shown and the total number of articles covering each topic.

1.2 Part 2: The effect of articles

The second part of the experiment will analyze the effect of articles. Each individual will be randomly assigned to one of the following treatment groups, with the probability of being assigned to each group in parenthesis:

- Zero Price Treatments: in the following three groups the price of the article will be set to 0, and therefore, individuals will always be exposed to the articles.
  - Group 1: Zero price + 2023 article about Palestinian victims (30%)
  - Group 2: Zero price + 2023 article about Israeli victims (30%)
  - Group 3: Zero price + 2023 article about another disaster (18%)
- High Price Treatments: in the following two groups the price of the article will be set to the maximum price. Therefore, the vast majority of participants will not be exposed to the article.
  - Group 4: Max price + 2023 article about Palestinian victims (10%)
  - Group 5: Max price + 2023 article about Israeli victims (10%)
- In the final group, one of the three articles will be randomly chosen along with a random price. This group is not used for the analysis of the effects of articles (second part) but we include it for incentive compatibility.
  - Group 6: Random price + random article (2%)

1.3 Article categorization survey

To supplement the main experiment, we will conduct additional surveys where other participants (from the same participant pools) will be shown a random set of headlines from our full pool of headlines and evaluate how they portray each group: positively, negatively, or neither. Participants will also be asked whether they think that they will learn new information if they read the article associated with each headline and whether they think that

reading the article will cause them negative feelings. As we explain below, these questions will be used to analyze mechanisms and to create a continuous measure of how each article portrays each group.[1]

If we find in the categorization survey that any of the articles on the Israeli-Palestinian conflict are perceived to portray both groups similarly we will remove the article from our analysis, as it cannot be used to analyze different preferences for articles favoring the ingroup, compared to the outgroup.

2 Outcomes and Specifications

2.1 How does WTP vary based on one's identity?

Our baseline specification is

$$WTP_{ij} = \beta_0 + \beta_1 IGVictim_{ij} + \beta_2 OGVictim_{ij} + X_{ij} + \nu_j + \varepsilon_{ij} \tag{1}$$

where WTP_{ij} is the WTP of individual i for article j, and ν_j controls for article fixed effects (ν_j will be excluded if we do not manage to recruit Jordanian participants and in analyses restricted to one country). $IGVictim_{ij}$ indicates whether article j refers to victims in participant i's ingroup and $OGVictim_{ij}$ indicates whether article j refers to victims in participant i's outgroup. X_{ij} is a set of controls, including the date the survey was taken and the order of the articles. If we find that these controls do not explain any variation in WTP we may exclude them. β_1 and β_2 indicate the difference in WTP across articles. A lower willingness to pay typically means individuals are willing to give up more in order to avoid the article. Our main hypothesis is that $\beta_1 > \beta_2$. This difference is expected to be more pronounced for articles from 2023, see mechanism section below (section 3.1).

In an alternative specification, we will define the relation of each article to the two groups using continuous variables:

$$WTP_{ij} = \beta_0 + \beta_1 IGScore_{ij} + \beta_2 OGScore_{ij} + X_{ij} + \nu_j + \varepsilon_{ij} \tag{2}$$

Where $IGScore_{ij}$ and $OGScore_{ij}$ are variables describing how positively or negatively article j refers to participant i's ingroup and outgroup, respectively, based on the categorization survey. For both of these regressions, we will include specifications that only include the most recent articles.

2.1.1 Heterogeneity

We will test for heterogeneity in the main regression by adding interaction components measuring how close each individual feels to their in-group.

$$\begin{aligned} WTP_{ij} = \beta_0 + \beta_1 IGVictim_{ij} + \beta_2 OGVictim_{ij} + \beta_3 IDStrength_i + \\ \beta_4 IGVictim_{ij} * IDStrength_i + \beta_5 OGVictim_{ij} * IDStrength_i + X_{ij} + \nu_j + \varepsilon_{ij} \end{aligned} \tag{3}$$

where $IDStrength_i$ measures the strength of the individual's identification with her ingroup, which is measured after eliciting WTP but before the assignment of an article and a price. We will measure $IDStrength_i$ based on (1) a question asking participants how proud they are of their identity and (2) the difference between participants' feelings towards people in their ingroup and people in their outgroup according to a feeling thermometer question.

We will similarly examine heterogeneity by political views, and within the Jordanian population by Palestinian descent.

2.2 What is the effect of exposure to articles on comprehension and recollection?

We will test whether individuals learn the details of an article after they were randomly exposed to it and whether they remember it in a follow-up survey using the following ITT regression.

$$Y_i = \beta_0 + \beta_1 ZeroPrice_i + \beta_2 IGVictim_i + \beta_3 ZeroPrice * IGVictim_i + X_i + \varepsilon_i \tag{4}$$

[1] Update June 26, 2024: after conducting one round of the categorization survey in Israel, we found that it provides useful data but can be edited to further disentangle mechanisms. We will run another round with additional questions asking people if they think it is important to read the story, whether the find it reliable, and whether they are familiar with the facts discussed in the story. The analysis of these questions will be similar to the analysis discussed in Section 3.

where $ZeroPrice$ indicates that the participant was assigned to groups 1 or 2 , and $IGVictim_i$ is whether the participant was assigned to an article about victims in their group (Groups 1 and 4 for Jordanians, and Groups 2 and 5 for Israelis). This regression excludes Groups 3 and 6. β_1 is the additional share of questions answered correctly when one receives the opportunity to read the article for free. The coefficient of interest is β_3, which can be interpreted as the additional comprehension or recollection of participants when they are assigned an article covering victims in their group. X_i is a set of controls: gender, age, income, Palestinian descent, ideology, religiosity, how often participants follow the news, where they get news, whether they support a two-state solution, how proud they are of their identity, answers to feeling thermometer questions, and political affiliation. If there are missing answers or questions asked only in one population, we will set them to an arbitrary value and add a dummy variable for whether the answer is missing.

Notice that each individual i is only assigned one article, and hence this regression is identified off between-subject variation. We will analyze two separate outcomes:

- Comprehension: the share of quiz questions answered correctly on the day the survey was conducted. We will also run this regression with a fixed effect for the randomly chosen article (assuming we manage to recruit Jordanians).
- Recollection: the share of quiz questions answered correctly in a follow-up survey. Notice that for outcomes from the follow-up survey we can only include Israeli participants.

In case we find differences in comprehension or recollection across ingroup and outgroup articles, we will also examine whether they are associated with differences in reading time, as well as differences between new and repeating questions.

2.3 What is the effect of exposure to articles on attitudes and knowledge?

We will analyze the effect of articles on attitudes and knowledge using the following regression

$$Y_i = \beta_0 + \beta_1 ZeroPriceIGVictim_i + \beta_2 ZeroPriceOGVictim_i + X_i + \varepsilon_{ij} \tag{5}$$

where $\beta_1$and β_2 are the effects of being assigned to Groups 1 and 2. For this regression, we have two potential comparison groups:

- Participants who are likely not to read an article (Groups 4, 5) - these participants provide a clean comparison between people who read an article about ingroup or outgroup victims compared to those who do not. However, this comparison suffers from two potential downsides. First, there may be non-compliance as some individuals in Groups 4 and 5 can read the article if they offer the maximum amount. Second, reading any article may increase attrition and therefore, there could be differential attrition between Groups 4-5 and Groups 1-2.
- Participants who read about another disaster (Group 3) - these participants provide a comparison between individuals reading about ingroup or outgroup victims compared to individuals reading about another disaster. This comparison is less likely to suffer from issues of non-compliance or differential attrition. However, there is a risk that an article about another disaster could somehow affect participants' answers.

  We will pool both comparison groups if the outcomes for Groups 3, 4, and 5 are similar.

We will calculate the share of non-compliers by analyzing how many people were shown the article in Groups 4 and 5 (i.e., they offered the maximum price) or skipped the article even though they were shown it. We expect that the vast majority of participants will not have an incentive to skip the article since they need to read it in order to answer the quiz questions correctly. However, participants who offer 0 may skip the article. If there is a substantial share of non-compliers, we will instrument reading the article (i.e., being exposed to the article for at least 20 seconds) with the random assignment.

Primary outcomes We will analyze the effect on the following primary outcomes

- Four knowledge questions related to the article on the Israeli-Palestinian conflict. Individuals may be very knowledgeable regarding facts that portray their outgroup negatively. In that case, we will focus the analysis on the two questions portraying their ingroup negatively.
- An empathy question on whether participants feel bad when there are victims on the other side.

- A policy question regarding how much the suffering of the civilian population should be taken into account during the war.

In addition to analyzing each of these outcomes, we will create an index summarizing all outcomes.

Persistence We will analyze persistence (and possible delayed effects) by analyzing the same primary outcomes in the follow-up survey.

Other outcomes The following outcomes can be thought of as downstream outcomes or outcomes that are not directly linked to the treatment. Therefore, we expect to find small (or null) effects on these outcomes.

- Behavioral outcome: willingness to donate to a charity working with the outgroup.
- Learning: understanding international criticism against the ingroup.
- The difference in attitudes toward people in the ingroup and outgroup, based on a feeling thermometer question asked in the follow-up survey.
- Media attitudes: whether participants think CNN is reliable.
- Media behavioral outcome: are participants interested in the CNN app or CNN Facebook page (index composed of both questions), basedon the follow-up survey.

2.3.1 Heterogeneity

- We will test whether individuals who typically avoid articles are also the ones who are less likely to be affected by them. To address this question, we will analyze regressions of the following form:

$$Y_i = \beta_0 + \beta_1 ZeroPriceIGVictim_i + \beta_2 ZeroPriceOGVictim + \beta_3 IGVictimWTP_i + \beta_4 OGVictimWTP_i + \beta_5 ZeroPriceIGVictim_i * IGVictimWTP_i + \beta_6 ZeroPriceOGVictim_i * OGVictimWTP_i + X_i + \varepsilon_{ij} \quad (6)$$

where $IGVictimWTP_i$ and $OGVictimWTP_i$ are how much participants were willing to pay for the treatment article describing the ingroup and outgroup victims, respectively. β_5 and β_6 measure the additional effect of reading an article on people who were willing to pay more to read it.

- If we recruit a sufficient number of Jordanian Palestinians, we will test for heterogeneous effects between Jordanian Palestinians and other Jordanians.
- Finally, if we find significant effects on our primary outcomes, as a secondary heterogeneity analysis, we will examine heterogeneous effects by gender, age, IDStrength, and political attitudes (supporting a two-state solution and self-reported ideology).

3 Mechanisms

We will examine mechanisms for explaining variation in WTP. We will mostly focus on understanding the difference between articles on one's ingroup and outgroup (β_1 and β_2 in Equation 1).

3.1 Factors driving the ingroup-outgroup gap in WTP

- **Instrumental motives**. We will test whether the variation in WTP is likely to be explained by the instrumental value the article provides. The main driver of instrumental value is the bonus payment, but other factors could include the following:
    1. Article recency. We will add to Equation 1 full interactions between *IGVictim*, *OGVictim* and the time period discussed in the article (2010s or 2023). If we find similar differences between the WTP for articles covering each group's victims in the previous period and the current period, these differences are less likely to be driven by instrumental reasons. This regression will also allow us to analyze how news avoidance changes during wartime.

2. Ex-ante expectation of learning. We will add to Equation 1 a variable on whether the article is expected to provide new information (according to the categorization survey):

$$WTP_{ij} = \beta_0 + \beta_1 IGVictim_{ij} + \beta_2 OGVictim_{ij} + \beta_3 NewInfo_j + X_{ij} + \nu_j + \varepsilon_{ij} \quad (7)$$

$NewInfo_j$ will measure whether the article is expected to provide new information, β_3 is the general increase in WTP for articles with potentially more instrumental value. If we find that β_1 and β_2 do not change when controlling for $NewInfo_j$, then the expectation to learn from the article is unlikely to explain the difference in WTP between articles focusing on the ingroup and outgroup.

3. Ex-post knowledge. we will test whether individuals who offer a higher WTP for the article they were randomly assigned learn more information from it:

$$KnowledgeQuestions_i = \beta_0 + \beta_1 ZeroPrice_i + \beta_2 ZeroPrice_i * WTP_i + \mu_j + X_i + \varepsilon_{ij} \quad (8)$$

Finding that people who tend to avoid the article (have a lower WTP) learn more from being exposed to it will suggest that instrumental concerns do not explain WTP.

- **Affective motives**. To test for affective motives, we will use similar methods:

1. Ex-ante expectation. We will analyze how WTP varies based on whether the article is expected to cause negative feelings ($ExpNeg_j$) according to the categorization survey:

$$WTP_{ij} = \beta_0 + \beta_1 IGVictim_{ij} + \beta_2 OGVictim_{ij} + \beta_3 ExpNeg_j + X_{ij} + \nu_j + \varepsilon_{ij} \quad (9)$$

2. Ex-post feelings. We will test whether individuals who offer a higher WTP for the article they were randomly assigned experience more negative feelings in the survey:

$$NegFeeling_i = \beta_0 + \beta_1 ZeroPrice_i + \beta_1 ZeroPrice_i * WTP_i + \mu_j + X_i + \varepsilon_{ij} \quad (10)$$

where $NegFeeling_i$ is defined as respondents reporting feelings of anger, anxiety, or guilt while taking the survey (three separate regressions).

3.2 General factors affecting WTP

- **What predicts WTP?** In a separate regression we will also explore general factors affecting WTP and not only the difference in WTP. We will regress WTP on whether the headline is related to a conflict, whether the article is recent, whether participants in the categorization survey thought the article would provide new information, whether they thought it would cause negative feelings, and whether it covers victims of the ingroup or outgroup. This regression will test for other important factors affecting WTP regardless of the group covered by the article, such as conflict aversion.

- **Likelihood of receiving the bonus reward**. Participants may also choose their WTP based on their perceived likelihood of answering the questions on the article correctly and receiving the bonus reward. While we will accurately tell participants that almost everyone who reads the article is likely to receive the reward and that participants who do not read it have a low probability of receiving the reward, participants may have different perceptions. Therefore, we will ask half of the participants what they think is the likelihood that they will receive the reward if they read or do not read the article on which they offered the highest WTP. We will ask the other half of the participants the same question on the article for which they offered the lowest WTP. We will check if WTP is correlated with the difference between the perceived likelihood of receiving the reward if the article is read and the perceived likelihood of receiving the reward if the article is not read.

- **Self-reported rationalization**. Finally, we will analyze an open-ended and multiple-choice question asking participants to explain the variation in their WTP. The question asks about articles with the highest and lowest WTP. The multiple-choice options include instrumental (e.g., 'the first article has more useful information') and affective ('the second article seems sad') motives along with various other motives (e.g., 'there are some things that are important to read').

References

D'Amico, L. and G. Tabellini (2022). *Disengaging from Reality: Online Behavior and Unpleasant Political News*. Working Paper.

DellaVigna, S. and M. Gentzkow (2010). Persuasion: Empirical evidence. *Annual Review of Economics 2*(1), 643–669.

Stroud, N. (2008). Media use and political predispositions: Revisiting the concept of selective exposure. *Political Behavior 30*(3), 341–366.

Taber, C. and M. Lodge (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science 50*(3), 755–769.