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(Mis-)Perceptions, information, and political polarization: A survey and a systematic literature review

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ABSTRACT

Numerous studies have documented that misperceptions about society, e.g. related to inequality, are widespread among voters. Simultaneously, a separate body of literature demonstrates increasing political polarization. Against this background, it is intuitively appealing to hypothesize that information provision can be useful not only to correct misperceptions, but also to create a common ground that can bridge divisiveness. In a general population survey, conducted in the United States, we show that beliefs in the power of information to reduce polarization are indeed widespread. To investigate the empirical relationship between information provision and polarization, we conduct a systematic literature review. We focus on papers that study the effect of information treatments on redistributive policy preferences, exploiting the fact that they often investigate heterogeneities in the reaction to information treatment. Our review shows that while it is certainly possible for information to decrease polarization, the effect is frequently the opposite. The reason is that different groups react differently to truthful and accurate information, in ways that often reinforce existing preference.

1. Introduction

Numerous studies document that political polarization is increasing in most Western democracies (Boxell et al., 2022; Iyengar et al., 2019). Generally, these studies refer to the extent to which groups within a society hold divergent (and gradually more extreme) views on public policies. The groups are often distinguished based on their political ideology (e.g. Liberal vs Conservative) but may also be defined by their relative position in the income distribution (rich vs poor), by their prior beliefs (e.g. perceiving inequality to be high or low), or other characteristics (like education, gender or race).¹

While some scholars believe political polarization to not be entirely negative (it could for example help provide a plurality of views and perspectives), most agree that it can impede consensus building and compromise, resulting in gridlocked governments and ineffective policy-making (c.f. Duffy et al., 2021; Haghtalab et al., 2021). Indeed, if excessive polarization reduces individuals' capacity to engage in constructive discussion, it is arguably less likely that they will find sustainable, long-term solutions to societal

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¹ There is a literature also on affective polarization, i.e. polarization in the sense of disliking people from the other side of the political spectrum. Our focus here is not affective polarization, but divisiveness in opinions.

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problems (c.f. Heltzel and Laurin, 2020).

Polarization is increasing in an era where information on nearly any topic is abundantly available to most who seek it. However, that information is available does not necessarily mean that voters correctly incorporate it. Indeed, a growing literature documents that misperceptions about key societal facts are common, for example regarding the degree of inequality in society (e.g., Norton and Ariely, 2011), or about one's own place in the income distribution (e.g., Cruces et al., 2013; Karadja et al., 2017). Moreover, such misperceptions have been found to influence people's political preferences and opinions at least as much as objective facts (c.f. Gärtner et al., 2023). This has led many, including policymakers, to form the intuitively appealing hypotheses that: (i) misperceptions could be contributing to polarization in policy preferences; and (ii) information provision designed to correct the misperceptions could therefore help reduce polarization (c.f. The reasoning in e.g. OECD, 2021).

In this paper, we study the links between information provision aimed at reducing misperceptions, policy preferences, and polarization. We employ two different methodologies: an incentivized survey and a systematic literature review.

We use the incentivized survey, conducted in a general population sample of the United States population (N = 900), to confirm that respondents perceive: (i) polarization to be increasing; (ii) that this is problematic for society; and (iii) that misinformation about society is widespread. Importantly, we also show that the vast majority of respondents, regardless of political affiliation, share the belief that misinformation is in itself polarizing, and that information provision can help reduce polarization.

But that people believe something to be true does not necessarily make it so. While providing truthful and accurate information may sometimes facilitate a sound political discussion and bring people closer together, it could also serve to reinforce existing beliefs, thereby solidifying – or even amplifying – divisiveness. To investigate how the provision of accurate and truthful information affects political polarization, we conduct a systematic literature review of 59 published and unpublished studies. While these studies did not originally aim to understand the effect of information on polarization per se, they include heterogeneity analyses (regarding the effects of the information treatments) that allow for this. We utilize these heterogeneity analyses to better understand whether information treatments have a causal (either positive or negative) effect on polarization.

Given increasing inequality in many western countries in the past decades, redistributive preferences are the focus of a growing literature. This is also a topic on which we have conducted extensive research ourselves,² which is an ideal starting point for a systematic literature review (Irsova et al., 2023). The studies in our systematic review contain experiments where truthful, objective information that aims to correct commonly held misperceptions (for example regarding inequality levels, relative income, and social mobility) is provided to treated participants in order to study how redistributive preferences form and change. We specifically choose studies that investigate whether treatment effects are heterogeneous – i.e., if people of different political leanings, social class, etc react differently to information. Even though this was not the goal of the original papers, such heterogeneity analysis can be used to draw conclusions about how information affects political polarization.

The results of the systematic review show that while providing truthful information can indeed help decrease polarization (when for example either one or both sides of the political spectrum become, on average, less extreme in their opinions), the opposite is also true. This implies that the empirical evidence on the relationship between misperceptions, preferences, information provision, and polarization stands in sharp contrast to the general population's beliefs about the depolarizing effect of information. Specifically, while it *may* be true that a less misinformed society is less divided, and while information provision *may* help reduce polarization, this is often not what is observed.

Our work contributes to at least two strands of literature: First, it adds to the large literature in economics (Campante and Hojman, 2013; Grechyna, 2016; Alesina et al., 2020; Canen and Trebbi, 2020; Levy, 2021; Boxell et al., 2022; Azzimonti and Fernandes, 2023), political science (Fiorina and Abrams 2008; Abramowitz, 2010; Prior, 2013; Lelkes et al., 2017; Iyengar et al., 2019; Peterson et al., 2021), psychology (e.g., Baron and Jost, 2019; Moore-Berg et al., 2020; Jost et al., 2022) and sociology (Di Maggio et al., 1996; Baldassarri, D., & Gelman, 2008; Vann, 2021; Perry, 2022) that investigates the determinants of polarization, and discusses tools to combat divisiveness. Second, we provide a novel lens (that of polarization) from which to consider the growing literature that utilizes information experiments to study misperceptions and preferences (e.g., Alesina et al., 2018, 2023; Karadja et al., 2017; Cruces et al., 2013). In that literature we add Coppock (2022) who challenges the commonly held belief that only those of the same political affiliation as oneself are open to new information. He shows that updating based on new information happens at both sides of the spectrum. We add the perspective of differential updating by group, and thereby study the effects of information on polarization.

Our paper proceeds as follows: Section 2 describes the design and implementation of our incentivized survey, and the results thereof. Section 3 contains the systematic literature review, focusing on the causal relation between information provision and polarization. Section 4 discusses the circumstances under which information seems to have a positive, negative or null effect on polarization, respectively. Section 5 concludes.

2. General population beliefs

The incentivized survey was programmed with Qualtrics. It was deemed exempt from review by the George Mason University Institutional Review Board (IRBnet ID: 1997423). We recruited respondents through Prolific, and they were paid \$1 for their participation in the survey, which took on average 8 min. In addition, respondents received an average of \$0.36 as a bonus payment to incentivize accurate answers in a survey question that asked them were to guess how information treatments from academic papers

² For example, Karadja et all. (2017); Fehr et al. (2022); Iacono and Ranaldi (2021); Bavetta et al. (2019, 2020); Bruni et al. (2024); Gärtner et al. (2017); Mollerstrom and Seim (2014); Mollerstrom et et al. (2022).

affect polarization. Total compensation corresponded to an hourly wage of approximately \$10.20. A total of N = 900 people responded to the survey (an additional 20 people started, but did not finish, the survey, and these partial responses were deleted before analysis). All respondents were residing in the United States and were sampled to generate an equal representation of people describing themselves (in the background information provided by them directly to Prolific) as liberal, moderate and conservative, respectively. Note that the sample is not a true representative sample, but rather a general population sample with significant variation in political views. Table A1 in Appendix displays the demographic characteristics of our survey respondents and compares it to the characteristics of the full US population. The average age in the full sample is 43.4 years (with liberals being, on average, 41.9 years old, moderates 42.7, and conservatives 45.8). 77 percent identify as White (77% of liberals, 72% of moderates and 82% of conservatives). The median education is four-year college, regardless of political affiliation. Finally, the median category for individual income selected is \$45,000–60,000 for conservatives and moderates, and \$30,000–45,000 for liberals.

The goal of the incentivized survey was to examine general population beliefs about the effect of misperceptions on polarization, as well as the beliefs about the causal link between information provision and polarization. In addition, the survey contained questions about whether respondents think that the United States is currently polarized; whether polarization has changed over time; and whether people are generally more or less well-informed about societal matters. At the start of the survey, after collecting informed consent, we told participants that several questions in the survey would concern political polarization, which we defined as the *divergence of political attitudes away from the center towards ideological extremes*. The full survey materials are available in Online Appendix A and the data can be downloaded on the Open Science Framework: https://osf.io/6rhke/.

The results of the survey are summarized in Table 1.³ We find that respondents perceive the current level of polarization to be high. On a Likert scale from 1 to 10 (1 = not polarized at all, 10 = extremely polarized), the average answer is 7.52. Respondents on average also perceive the United States to be more polarized now than 10 years ago (M = 7.61 scale 1–10 where 1 = much less polarization now, 5 = no change in polarization, 10 = much more polarization now). Further, respondents state that polarization is a problem (M =7.16 scale 1–10 where 1 = polarization is definitely good, 5 = neither good nor bad, 10 = definitely bad) and that less polarization would be beneficial to American society (M = 7.48 scale 1–10 where 1 = definitely disagree that less polarization would be beneficial, 10 = definitely agree). These patterns hold for liberals, moderates, and conservatives alike. However, while conservatives agree with liberals and moderates that polarization is bad, and that less polarization would benefit society, they express this opinion somewhat less strongly.

Regarding which entity is more polarized in society, respondents believe that the population, politicians and media are all very polarized, but that politicians and the media are more polarized than the population ($M_{pop} = 7.23$, $M_{pol} = 7.60$, $M_{media} = 7.44$). On average, they think that the right and the left are about equally responsible for polarization (M = 5.27, scale 1–10, 1 = the left/liberals are more responsible, 5 = Left and right are equally responsible, 10 = the right/conservatives are more responsible). However, this masks significant heterogeneity, in the sense that people who self-identify with one side of the political spectrum have a tendency to report that the other side is responsible for polarization ($M_{liberal} = 6.87$, $M_{moderate} = 5.29$, $M_{conservative} = 3.64$).

Regarding how informed respondents believe citizens in the United States to be about societal matters, the answers reveal a certain pessimism: on a scale from 1 to 10 (1 = voters are definitely not well informed, 10 = voters are definitely well informed), the average answer is 3.96. The three political affiliation groups agree that citizens in general are poorly informed ($M_{liberal} = 3.89$, $M_{moderate} = 3.94$, $M_{conservative} = 4.06$), but also believe that voters of their own political inclination are better informed (scale 1–10, 1 = the left/liberals are definitely better informed, 5 = Left and right are equally well informed, 10 = the right/conservatives definitely better informed, $M_{liberal} = 3.09$, $M_{moderate} = 4.69$, $M_{conservative} = 5.67$).

Considering the link between information and polarization, we first observe that 69 percent of our sample list citizens being uninformed as one of the driving factors behind the current levels of polarization.⁴ We then asked respondents to imagine two societies, where people differ in how well-informed they are. Respondents report that they think polarization would be more prevalent in the society with poorly informed people (scale 1–10, 1 = Higher polarization in well informed society, 5 = same level of polarization, 10 = Higher polarization in poorly informed society, M = 7.31). Liberals express a stronger belief in an informed society being less polarized than moderates and conservatives do ($M_{liberal} = 7.76$, $M_{moderate} = 7.16$, $M_{conservative} = 7.01$). We thus document a belief in a negative correlation between polarization and the extent to which voters are well-informed.

Beliefs about the causal relation between information provision and polarization are similar. On average, respondents believe that providing accurate and truthful information about society would decrease polarization in society (1–10, 1 = Polarization would decrease, 5 = Polarization would not change, 10 = Polarization would increase, M = 3.10). This belief is held by all political affiliation,

³ In the appendix, we replicate Table 1 by using post-stratification weights in order that our results are robust. Table A2 show that results are slightly different, but the picture is unchanged with respect to Table 1.

⁴ Respondents could choose as many or as few reasons as they wanted from the following list (items presented in random order): 1) Political parties adopt extreme positions (chosen by 85%); 2) Quality of education is low (59%); 3) Citizens are uninformed (69%); 4) Traditional media is biased (72%), 5); Inequality is too high (55%), 6); Social media is biased (66%), 7); Many citizens hold extreme political views (69%); 8) Large religious/cultural differences (56%); 9) People have limited knowledge about society and how it works (57%); 10) Other, please specify (11%). On average, respondents selected 6 out of the 10 items.

Table 1

Survey results.

	Full Sample	Liberals	Moderates	Conservatives
Current US polarization	7.52	7.50	7.50	7.57
1-9 scale: No polarization (1), extremely polarized (9)	(0.05)	(0.08)	(0.08)	(0.08)
Polarization now compared to 10y ago	7.61	7.73	7.54	7.56
1-9 scale: Much less polarized (1), much more polarized (9)	(0.05)	(0.09)	(0.10)	(0.10)
Is polarization good or bad?	7.16	7.25	7.34	6.90
Definitely good (1), Definitely bad (9), 1–9 scale	(0.06)	(0.10)	(0.10)	(0.12)
Less polarization would be beneficial	7.48	7.60	7.57	7.20
Definitely disagree (1), definitely agree (9), 1–9 scale	(0.06)	(0.10)	(0.10)	(0.11)
Current US polarization, population	7.23	7.27	7.19	7.26
1-9 scale: No polarization (1), extremely polarized (9)	(0.05)	(0.08)	(0.08)	(0.09)
Current US polarization, politicians	7.60	7.67	7.66	7.45
1-9 scale: No polarization (1), extremely polarized (9)	(0.05)	(0.08)	(0.09)	(0.09)
Current US polarization, media	7.44	7.18	7.45	7.71
1-9 scale: No polarization (1), extremely polarized (9)	(0.05)	(0.09)	(0.09)	(0.10)
Who is responsible for polarization?	5.27	6.87	5.29	3.64
1-9 scale: Left/liberals (1), both sides equally (5), right/conservative (9)	(0.07)	(0.10)	(0.10)	(0.12)
How informed are voters?	3.96	3.89	3.94	4.06
1-9 scale: Not well informed at all (1), very well informed (9)	(0.05)	(0.09)	(0.09)	(0.10)
Who is better informed?	4.78	3.09	4.69	6.57
1-9 scale: Left/liberals (1), right/conservative (9)	(0.07)	(0.09)	(0.08)	(0.10)
Where will polarization be higher?	7.31	7.76	7.16	7.01
1-9 scale:In well informed society (1), in poorly informed society (9)	(0.06)	(0.10)	(0.10)	(0.11)
Effect of information provision on polarization	3.10	2.87	3.12	3.30
1-9 scale: Decrease in polarization (1), no change (5), increase (9)	(0.06)	(0.10)	(0.09)	(0.11)
Effect of information provision on average opinion	4.87	3.37	4.66	6.57
1-9 scale: Average opinion moving left (1), no change (5), moving right (9)	(0.07)	(0.08)	(0.08)	(0.09)
Liberals willing to reconsider opinions w new info?	4.39	6.03	4.3	2.81
1-9 scale: Not at all willing (1), very willing (9)	(0.08)	(0.12)	(0.13)	(0.12)
Moderates willing to reconsider opinions w new info?	6.47	6.43	6.72	6.25
1-9 scale: Not at all willing (1), very willing (9)	(0.06)	(0.10)	(0.11)	(0.11)
Conservatives willing to reconsider opinions w new info?	3.54	2.52	3.22	4.88
1-9 scale: Not at all willing (1), very willing (9)	(0.08)	(0.10)	(0.11)	(0.14)
Ν	900	300	300	300

Notes: Averages (standard errors); Source: own data.

but with liberals expressing it more strongly than moderates and conservatives ($M_{liberal} = 2.87$, $M_{moderate} = 3.12$, $M_{conservative} = 3.30$). It also holds in the incentivized part of the survey, where respondents were tasked with guessing how information treatments from academic papers affect polarization. Here, 52 percent of respondents guess that the information provided in the study caused polarization to decrease, while 27 and 22 percent guessed that polarization did not change or that it increased, respectively).⁵

Both liberals and conservatives believe that more information would move average opinions in their favored direction in society (1–10 scale, 1 = on average opinions would move left/liberal, 5 = opinions would not change, 10 = opinions would move right/conservative, $M_{liberal} = 3.37$, $M_{moderate} = 4.66$, $M_{conservative} = 6.57$). They also, similar to what Coppock (2022) discusses, believe that people from their own side of the political spectrum would be more willing to reconsider their opinions in light of new information (on a 1–10 scale with 1 = not willing to reconsider and 10 = willing to reconsider, liberals place people to the left at 6.03 and people to the right at 2.81, with corresponding figures for moderates being 2.52 and 4.88, and for conservatives 2.52 and 4.88). Everyone, regardless of political affiliation, believes that moderates would be more likely to respond to information than liberals or conservatives.

In sum, we confirm that respondents in a general population sample from the United States believe that a more informed society would be less polarized, and that information provision will often help to combat polarization.

3. Systematic literature review

We now move on to describing the implementation and the results of our systematic literature review. We conduct the review with the aim of utilizing the growing literature on information experiments to explore whether providing information about objective facts (e.g. related to inequality or social mobility) affects perceptions and preferences for redistribution in a way that increases or decreases polarization.⁶ Specifically, drawing on the most commonly studied heterogeneities typically associated with polarization, we aim to

⁵ We selected three studies (Karadja et al., 2017; Grigorieff et al., 2020; Alesina et al., 2018) and randomly assigned one to each respondent. Respondents saw a short description of the study and were then asked to guess if providing information led to polarization increased, decrease or stayed the same (order of alternatives were randomized). Using three studies enabled us to confirm that respondents' beliefs about how polarization changed with the information treatment were robust regardless of which of the three study descriptions a respondent saw.

⁶ We study polarization in perceptions as this is potentially important to understand when, and under what circumstances, information has effect. It should, however, be noted that only few studies report heterogeneous treatment effects on perceptions.

explore whether the provision of information influences political polarization along six dimensions: prior beliefs, political ideology, income/wealth, education, gender and race.⁷ We choose to conduct a systematic literature review rather than attempting a metaanalysis, as the outcome variables used vary significantly between different studies to those making a meta-analysis inappropriate.

We follow best practice and provide the diagram flow and the checklist according to *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA, Irsova et al., 2023). The two are reported in Appendix B. The informational treatments and the outcome variables in our literature of focus (experiments with information treatments studying aspects of redistributive preferences) vary significantly and a systematic literature review is, therefore, ideal for our setting. The first step is to design the main search query. We do so by choosing five primary studies. Since we aim at including studies from other disciplines, beside three studies in economics, we also include one political science paper and one sociology paper.⁸ We then use ChatGPT (3.5) to identify the most commonly used words in the title, abstract and introduction of the primary articles. Beyond general words (including for example "respondents" or "income"), words like "experiment", "survey", "redistribution", "perceptions", "misperceptions" and "information" appear with the highest frequency. In order to avoid a combination of words that is too general (and hence generate to many results that are unrelated to our research question) we use a refined form: redistrib* AND "survey experiment" AND ("informational treatment" AND/OR "information treatment") AND *perception*.⁹ Using Google scholar (on August 17, 2023), this generates 420 results between the years 2000–2023.¹⁰

We choose to use Google Scholar as it includes all papers that have ever appeared online. Unlike many other databases it goes through the full text of papers, not just the title, abstract and keywords. Additionally, Google Scholar encompasses also working papers, and pre-registered studies that have already provided some preliminary results. Having one main query for one universal database (as opposed to multiple queries and/or multiple databases) increases the replicability of our systematic literature review.

To conduct our investigation, we specifically need studies that include survey experiments with information treatments conducted on general population samples. We therefore go throughout the 420 records from the above search, and use the following exclusion criteria to better refine the search:

- 1) **Duplicates:** several studies are duplicates of another that is also among the 420 records (duplicates can either have the same, or a different, title). Most often the duplicate is a working paper version of a published study, but there are also instances of duplicate working papers. Generally, we indicate as duplicate, and exclude, the older study, and we prefer the published version of a study to the non-published (N = 86).
- 2) Other type of study: We exclude empirical studies different from a general population experiment with informational treatments. For instance, among the others, we exclude game-based experiments and hypothetical experiments (N = 55).
- 3) **Other outcomes:** we excluded survey experiments with informational treatments where the outcome is not related to redistributive preferences. Specifically, we excluded studies where the outcome variable is only related to trade, environment/climate, crime, etc.¹¹ (N = 123)
- 4) No heterogeneity reported: given the aim of our systematic review, we exclude studies that do not report heterogeneous treatment effects in at least one of six dimensions reported above (N = 16).
- 5) **Other reasons:** we also exclude studies that are in other ways inappropriate to include in the review. This includes among other things theoretical works, methodological studies, reviews of other people's work (that was not already excluded when checking for duplicates), and pre-registered analysis plans where the data collection has not yet been conducted. (N = 81)

After applying the above exclusion criteria, 59 studies remained to be evaluated within the systematic review.¹² They were analyzed in four ways.

⁷ We acknowledge that there are other dimensions along which it would be interesting to study and polarization. One such example is working status. However, very few studies consider heterogeneous treatment effects along other dimensions than the six here considered.

⁸ Economics: 1) Cruces, G., Perez-Truglia, R., & Tetaz, M. (2013). Biased perceptions of income distribution and preferences for redistribution: Evidence from a survey experiment. Journal of Public Economics, 98, 100–112; 2) Fehr, D., Mollerstrom, J., & Perez-Truglia, R. (2022). Your place in the world: Relative income and global inequality. American Economic Journal: Economic Policy, 14(4), 232–268; 3) Karadja, M., Mollerstrom, J., & Seim, D. (2017). Richer (and holier) than thou? The effect of relative income improvements on demand for redistribution. Review of Economics and Statistics, 99(2), 201–212.; Sociology: 4) Engelhardt, C. & Wagener, A.(2018) What do Germans think and know about income inequality? A survey experiment. Socio-Economic Review, vol. 16, no 4, p. 743–767.; Political Science: 5) Nair, G. (2018) Misperceptions of relative affluence and support for international redistribution. The Journal of Politics, 2018, vol. 80, no 3, p. 815–830.

⁹ Indicating redistrib* with an asterisk (*) instructs the search engine to find variations of the word "redistrib", such as "redistribution", "redistributive", etc. By enclosing a phrase in double quotation marks, like "survey experiment", the search engine will locate that exact phrase rather than individual words scattered throughout the text. Using parentheses to group terms together, such as ("informational treatment" AND/OR "information treatment"), specifies that either one or both of the terms within the parentheses can be present in the search results. "AND" specifies that both terms must be present, while "OR" allows for either term to be present. Finally, using *perception* allows to include also studies using the word "misperception".

¹⁰ To download the list of studies in Google scholar, we used Publish or Perish, a software program that retrieves and analyzes academic citations and allows to save to a variety of output formats.

¹¹ Needless to say, this does not imply that we do not recognize the secondary, redistributive effects of such factors.

¹² Two reviewers, authors of the present study, conducted independent screenings of each record and report their inclusion criteria. Subsequently, a reconciliation meeting was held to resolve any discrepancies.

First, we gather the details about the characteristics of the studies: publication year, publication type, and geographical coverage of the study.

Second, we collect the characteristics of the information provided in the treatment and classify it as follows: (i) what general fact/ topic the information treatment concerns (e.g., inequality, social mobility, etc), (ii) the specific content of the information (e.g., relative income, income mobility of the bottom quintile, etc), (iii) characteristics of the information for example related to the information source, and to presence of statistical information, graphics, etc.

Third, we assess the papers for the effect of information firstly on misperceptions (although a majority of the studies do not report this) and on secondly on redistributive preferences. Considering the latter, we also specify the exact outcome variable (as redistributive preferences can be elicited in numerous ways, e.g. as tax preferences, beliefs in the importance of general governmental action against inequality, etc).

Fourth, we consider what each study has to say about the main topic of our review, i.e. about the impact of information on polarization.

Table C1 in Appendix C lists 59 articles and provides data on the four aspects according to which they were analyzed. All materials used in the present article can be downloaded at https://osf.io/6rhke/.

3.1. Descriptive statistics

We start by providing a description of the studies included in the systematic review. We first note that the literature on survey experiments is rather recent – we identify no articles from the years 2000–2012 that meet the selection criteria, and the number of publications on these topics has increased exponentially in the last two years (cf. Appendix C; Figure C2).

Of the 59 studies, 35 are published (in 23 different journals in economics, political science and sociology) and 24 are working papers. The publication frequency is highest in *European Journal of Political Economy* and *Journal of Public Economics* (see Appendix C; Table C3) but in general the acceptance of the kinds of studies we focus on seems widespread across journals.

Considering the geographical coverage, the most striking – albeit arguably not surprising – finding is that almost all studies have been conducted in affluent countries in Western Europe or the United States. This is depicted in Appendix C Figure C4, showing the distribution of studies across Western Europe, the United States, Latin America, Africa, Asia/Oceania, Eastern Europe/Russia, and China.

Regarding the characteristics of the information provided to respondents, we note that while a majority of studies contain exactly one information treatment (e.g. Cruces et al., 2013), there is a significant minority that encompass more (for instance Engelhardt and Wagener, 2018 provide two information treatments while Barton and Pan, 2022, utilize eight). In total, the 59 studies in our systematic review encompasses 119 treatments as outlined in Appendix C Table C1.

We next take a closer look at the information treatments and provide a classification based on the main topic that treated respondents were informed about. Based on the content of the papers in the review, we identify the following categories: inequality, relative income, education, immigration, social mobility, tax, poverty, automation, housing, environment, others (e.g. public debt, crime, trust). As some studies contain treatments with information on more than one topic, we classify some studies in more than one category. For instance, Albacete et al. (2022) provide respondents both with information on relative income and on the distribution of wealth, and we thus classify it as providing information on both relative income and inequality. Fig. 1 illustrates the results. Given that the outcome variables of these studies are redistributive preferences, it is not surprising that inequality is the most prominent topic, followed by relative income. Education, social mobility, immigration, and tax information are also relatively common.

Another aspect of an information treatment is how the information is conveyed to respondents. In order to better understand this, we observe if the information (a) contains statistical information, (b) is provided using a graphic image or (c) a video. We further note if (d) the source of the information (e.g. a research study or a national statistical office) is explicitly provided in the experiment, and whether (e) the information contains one or several piece of information. In addition, we check whether (f) the treatment provides information that is personal to the respondent (e.g. their own relative income), (g) whether the information contains a comparison or benchmark (e.g. information on the respondents country relative to other countries), and (h) if the information is provided in the form of a narrative/story.

Fig. 2 depicts the characteristics for the 119 information treatments in the 59 studies in our systematic review and shows that the most common way to convey information is through statistics (109 out of 119). In addition, more often than half of the time, graphical support is utilized (65 cases). The use of a video to provide information is however less common (17 cases). It is also not very frequent to provide the source of the information (only 33 cases). Quite often, the information is provided as a bundle, meaning that more than one piece of information (usually several statistical facts) are presented (57 cases). In 23 cases, information refers to the personal characteristics of the respondents, as in the survey experiments providing information on a person's own relative income position. It is relatively common that the information is not provided in isolation but with some specific comparison/benchmark that can offer a reference point for the respondents (49 cases). Presenting information as stories or narratives, rather than isolated facts, has been found to be effective in some contexts (Graetz and Shapiro, 2011; Larsen and Levy, 2016; Duffy, 2018; Stantcheva et al., 2023). Despite that, it does not seem to be a common way to convey information, at least in these survey experiments on redistributive preferences, as we find only four such cases.



Fig. 1. Classification of the topic of the informational treatments.

Source: Own data. Notes: Numbers of information treatments per topic. Others include Public Debt, Trust and Crime. As some studies contain treatments with information on more than one topic, we classify some studies in more than one category.



Fig. 2. Distribution of the characteristics of the informational treatments. Source: Own data. Notes: Numbers of cases per characteristics of the informational treatments.

3.2. Effect of information on perceptions, redistributive preferences, and polarization

We now turn to investigating what the papers in our systematic review have to say about the causal effect of information on, in turn, perceptions, redistributive preferences, and polarization.

3.2.1. Effect of information on perceptions

When looking at the effect of information on misperceptions, two features of the studies are important to point out. First, although the survey experiments generally reviewed here aim to correct misperceptions and investigate if political opinions thereby change, the treatment effect of the information on perceptions is often not assessed by the original authors. Instead, it is assumed that if the main outcome variable (related to redistributive preferences) is affected, perceptions must have been affected as well. Authors have various reasons for making this choice, including preferring to only elicit perceptions before treatment. Second, we limit the review of the effect of information on perceptions to the instances where the perceptions measured correspond exactly to the information provided. For instance, in Martinangeli and Windsteiger (2023), the informational treatments provide information on the incidence of poverty among all citizen and among immigrants, and on the share of immigrations in the population. Subsequently, the authors assess

respondents' perceptions of these exact facts. However, in several studies the perceptions elicited are not directly related to the treatment. One example is Mu (2022) who provides information on the wealth owned by the 1% and the bottom 25%, but subsequently askes respondents if they perceive inequality to be a problem in society.

Overall, among the 119 informational treatments, only 32 directly analyze the effect of information on the perceptions of the facts that the information concerned. The pattern is clear: information reduces misperceptions in all cases except one, implying that when information is provided, respondents tend to incorporate it and reduce their misperceptions (c.f. Appendix C; Table C1).

3.2.2. Effect of information on redistributive preferences

We now turn to considering the effect of information on the redistributive policy preferences. It is important to note that preferences for redistribution are operationalized in many different ways.

We consider as preferences for redistribution variables that assess the respondent's demand for a government intervention that aim to increasing public spending in order to help people in the bottom of the economic distribution. Examples include asking people if they want more or less redistribution in society, if they agree to tax the rich to help to poor, or asking about support for taxing the rich, for the minimum wage, or for educational spending directed to children at the bottom of the income distribution.¹³ If other outcomes variables are reported, for instance regarding attitudes towards immigrants or support for trade protection, we exclude these since the focus of the systematic review is on redistributive preferences.

It is further important to note that authors often report many outcome variables in the same study, and occasionally an index that summarize them. In the case the authors report the index, we consider only this, and in those cases where multiple outcome variables (but no index) are reported we consider all. In both cases the reason is to avoid us making discretionary choices. By following this procedure, we end up with N = 185 final observations of treatment effects on redistributive preferences. For each observation we report if the treatment has a statistically significant (positive or negative) or a null effect on the redistributive preference in question.

Fig. 3 illustrates the results of the review related to the effect of information on redistributive preferences. In a majority of cases, 63%, information has no effect whereas in the remaining 36% information seems to have a statistically significant effect on a respondent's demand for redistribution.¹⁴ Although different in scope and methodology from Ciani et al. (2021),¹⁵ our study finds that preferences for redistribution are not always inelastic to information.

Using the information collected in our systematic review, we next explore whether there are certain information characteristics that correlate with a significant effect of information on preferences for redistribution. In doing so, we create a dummy variable that takes on the value one if the information has a significant effect on preferences for redistribution and zero otherwise. We thereafter run a logistic regression with this dummy as dependent variable and using as independent variables the topic (Table 2) and the characteristics of the informational treatment (Table 3).¹⁶

Table 2 shows that if the treatment contains information on inequality or on education, there is a higher probability that its provision will have a significant effect on preferences for redistribution. On the contrary, information on social mobility and poverty reduces this likelihood. Remaining topics have no correlation with the outcome variable.

Considering other characteristics of the information, we also investigated whether the presence of a significant effect is correlated by certain information features. Table 3 reports the results.

We find only small difference in the correlation between information characteristics on the one hand, and the presence of a significant treatment effect on the other: providing information in a graphical format, or as a bundle with several piece of information decreases the probability of the treatment to have a statistically significant effect on preferences for redistribution.

3.2.3. Effect of information on polarization

We move now to investigate whether information tends to reduce or increase polarization, or to leave it unchanged in the papers in our systematic review. To do so, we take heterogeneous treatment effects, i.e. whether information affects different groups of people differently, as our starting point.

The mere existence of heterogeneous treatment effects does, of course, not mechanically imply that polarization is affected. Rather, the net effect on how preferences and opinions diverge between groups depends on which groups are affected by information, and in what direction. An information intervention can cause one or more groups to adjust perceptions and/or preferences in the direction of other group(s), thereby reducing polarization. Likewise, it is possible that information can lead to one or more groups becoming more extreme in their perceptions and/or preferences, which could mean that information provision increases polarization. It is also a possibility that information leaves polarization unchanged, either because no group changes their opinion, or because the changes in

¹³ Table C1 provides a complete list of the outcome variables.

 $^{^{14}}$ We further find that the treatments are more likely to increase (N = 42 cases) than to decrease (N = 26) preferences for redistribution. Given the intimate relation between exact information content and its directional effect on preferences for redistribution, we refrain to draw more general conclusions based on this.

¹⁵ Ciani et al. (2021) combines data from 36 studies examining the impact of providing information about inequality on individuals' concerns for inequality and preferences for redistribution. Using a meta-analysis, they find that has a sizeable impact on people's perceptions and concerns about inequality, but a rather small effect on their demand for redistribution.

¹⁶ We run some regressions to understand if the fact that the study is published or not correlates with the presence of statistically significant results of information on preferences for redistribution. We find that the coefficient indicating if the study is published is not significative reassuring us that publication does not bias the results.

Table 2



Fig. 3. Distribution of information treatment effect on redistributive preferences.

Source: own data. Notes: Numbers of "no effect" or "Positive/Negative effect" cases reported in the studies of the systematic literature review relative to treatment effects on preferences for redistribution.

Separate regressions - Topics of the informational treatment and null vs non-null effect of information on preferences for redistribution.

1 0	1				*	1				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)			
ineq	0.800**									
	(0.366)									
relinc		-0.248								
		(0.500)								
educ			2.010***							
			(0.694)							
immig				-0.645						
				(0.702)						
socmob					-1.424**					
					(0.571)					
tax						0.727				
						(0.603)	1 501++			
poverty							-1.501**			
Constant	-0.800***	-0.514***	-0.787***	-0.453**	-0.334*	-0.622***	(0.669) -0.445**			
Constant	(0.227)	(0.198)	(0.207)	(0.190)	(0.189)	(0.193)	(0.189)			
Observations	(0.227) 185	(0.198) 185	(0.207) 185	185	185	(0.193) 185	185			
Observations	183	183	185	165	165	185	165			

Robust standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

various groups offset each other.

All studies included in our systematic review, as presented in Table C1, contain at least one case where heterogeneous treatment effects are reported along at least one of six dimensions – prior beliefs, political ideology, income, gender, education, and race. By prior beliefs, we refer to variables indicating the level of misperceptions held by respondents before treatment. For instance, Lergetporer et al. (2018) consider people prior beliefs on educational spending. But also, in those studies where information is provided about the respondent's relative position, prior beliefs refer to an individual's overestimation or underestimation of his or her position (Fehr et al., 2024).¹⁷ With political ideology, we consider left-wing/liberal/progressive and right-wing/conservative as the opposing ends of the political spectrum. The decision to focus on these six categories was made based on what is most commonly reported by the authors.

Although we consider heterogeneous effects along six dimensions, we find that some of them are more often considered than others. This is true in particular for political ideology and income. As mentioned above, it is important to remember that our analysis is limited to what the authors of the original studies included in their published work or working paper. It should also be noted that while the

¹⁷ When treatments contain information on the relative income of the respondents, one can consider both heterogeneous treatment effects on the prior beliefs and on the income dimension. For instance, one can see both how poor people have reacted at the information or how people who believe they are richer have reacted to the information. Since both are relevant, in these studies with information on the relative income, we consider both dimensions.

Table 3

Separate regressions - Characteristics of the informational treatment and null vs non-null effect of information on preferences for redistribution.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
graphic	-1.086^{***} (0.368)							
statistics		-0.355 (0.826)						
video			-0.286 (0.443)					
narrative			(,	0.555 (1.021)				
comparison					-0.668* (0.361)			
personal					(0.001)	-0.0980 (0.483)		
bundle						(0.100)	-1.148^{***} (0.362)	
source							()	-0.146 (0.427)
Constant	1.256** (0.614)	0.132 (1.622)	-0.195 (0.570)	-1.111 (1.071)	0.296 (0.567)	-0.433 (0.593)	1.035* (0.572)	-0.365 (0.561)
Observations	185	185	185	185	185	185	185	185

Robust standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

studies we examine all explicitly look for heterogeneous treatment effects, they do not consider polarization as an outcome variable. This is instead an extra lens through which we view the studies.

Table C1 shows that only very few studies consider heterogeneous treatment effects on perceptions. Instead, studies mainly assess the heterogeneous treatment effects of information on various types of policy preferences.

Fig. 4 provides descriptive evidence of all heterogenous treatment effects, pooling the six dimensions. We have 403 reported cases of heterogeneous treatment effects, and in most cases (78 percent) the information has a null effect on polarization. In the remaining 22 percent of cases, we find that information changes political polarization and we see instances both where information increases polarization (N = 49) and instances where polarization decreases in response to information (N = 41). This finding is hence in sharp contrast with the beliefs documented in our survey (as discussed in Section 2), namely that information provision is overwhelmingly believed to have a depolarizing effect.

Looking deeper at these cases, Fig. 5 shows their distribution between cases where information is polarizing and depolarizing, respectively, and the six dimensions. Three patterns are notable. First, when considering individuals with different prior beliefs,



Fig. 4. Distribution of information treatment effects on polarization along all dimensions.

Source: own data. Numbers of "No effect", "Increase" or "Decrease" cases reported in the studies of the systematic literature review relative to impact of information on polarization



Fig. 5. Distribution of information treatment effects on polarization for each dimension.

Source: own data. Numbers of "Increase" or "Decrease" cases reported in the studies of the systematic literature review relative to impact of information on polarization on different dimensions of heterogeneity.

information has a higher chance to have a depolarizing effect. This can be related to information having a positive effect in reducing misperceptions and helping people align their redistributive preferences. Second, despite there being significant debate on the role of information on ideological polarization (e.g., Wilson et al., 2020; Prior 2013), there is no clear pattern that information increases polarization in the case of political ideology. Third, it seems instead that information is more likely to polarize on the income, gender, education and race dimension.

Polarization along the income dimension after information provision is not surprising and in line with what one would expect

	pol	depol												
ineq	0.0169 (0.424)	0.717** (0.349)												
relinc			1.573*** (0.397)	-0.230 (0.626)										
educ					0.0348 (0.628)	1.186*** (0.408)								
immig							-0.08 (0.466)	-0.259 (0.524)						
socmob									-2.430** (1.051)	-1.514** (0.772)				
tax											-0.007 (0.602)	-0.059 (0.724)		
poverty													-0.826* (0.490)	-0.631 (0.705)
Constant	-3.080*** (0.240)	-3.532*** (0.249)	-3.419*** (0.228)	-3.236*** (0.197)	-3.079*** (0.210)	-3.488*** (0.225)	-3.065*** (0.221)	-3.226*** (0.202)	-2.883*** (0.197)	-3.101*** (0.184)	-3.074*** (0.211)	-3.255*** (0.193)	-3.024*** (0.207)	-3.219*** (0.192)
Observations	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110

Table 4
Separate regressions – Topics of the informational treatment and polarizing/depolarizing information.

Robust standard errors in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

	pol	depol	pol	depol	pol	depol	pod	depol	pod	depol	pod	depol	pod	depol	pol	depol
graphic	-1.189^{***} (0.381)	-0.431 (0.371)														
statistics			0.521 (0.754)	-												
video					-1.516** (0.652)	-0.335 (0.525)										
narrative							-	0.128 (0.927)								
comparison									-0.421 (0.405)	-0.407 (0.395)						
personal									(01100)	(0.050)	1.516*** (0.398)	-0.023 (0.545)				
bundle											(0.050)		-0.814*** (0.390)	-0.993*** (0.381)		
source													(0.050)	(0.001)	0.752* (0.402)	0.390 (0.372)
narrative															(0.402)	(0.072)
Constant	-1.228^{**} (0.557)	-2.556*** (0.602)	-4.077*** (1.466)	-3.154*** (0.184)	-1.362* (0.739)	-2.860*** (0.631)	-3.052*** (0.199)	-3.392*** (0.984)	-2.736*** (0.586)	-2.489*** (0.553)	-4.929*** (0.561)	-3.235*** (0.646)	-2.143*** (0.587)	-1.619*** (0.534)	-4.043*** (0.577)	-3.750*** (0.546)
Observations	1110	1110	1110	1002	1110	1110	1086	1110	1110	1110	1110	1110	1110	1110	1110	1110

Table 5
Separate regressions – Characteristics of the informational treatment and polarizing/depolarizing information.

Robust standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

looking at those survey experiments finding a persistent "*middle-class bias*. If poor (rich) people overestimate (underestimate) their position in the formation of redistributive preferences, the provision of accurate information regarding the true level of inequality is anticipated to exacerbate the divide between these two groups. Many of the studies we reviewed provide evidence supporting this. For instance, Cruces et al. (2013) find that poor people in Argentina, once they learn that they are poorer than what believed, are more likely to increase their support for redistribution. Karadja et al. (2017), on the contrary, find that rich people in Sweden are more likely to increase their support when learned that they are richer than believed.

To investigate whether certain characteristics of the information are related to polarization or depolarization, we create two dummy variables. The first, *pol*, takes on the value one if the informational treatment increases polarization, and is otherwise zero. The second, *depol*, takes on the value 1 if the informational treatment reduces polarization. Using a logistic regression with standard errors clustered at the study level, we then regress in separate regressions these two variables on the independent variables included in Tables 2 and 3 Tables 4 and 5 report the results of those regressions.¹⁸

In Table 4, we analyze whether some topics are significantly associated with information polarizing or depolarizing respondents. We find that information on relative income is positively associated with information increasing polarization while information related to social mobility is negatively associated with polarization. Remaining topics are not statistically significantly associated with polarization. Overall, from our reading of the literature, the most important finding is that those studies providing information on relative income, which are also those studies providing individuals with personal information on their own position in the income or wealth distribution, are more likely to increase polarization. This result can be explained by the presence of *middle-class bias*, as also discussed above. Moving to correlates of depolarization, Table 4 shows that only information on inequality and education are positively associated with depolarization. On inequality, Günther and Bruno (2023) find that polarization in preferences for redistribution after information on wealth inequality decreases since conservative becomes more supportive of redistribution. Similar conclusions are reached by Ardanaz et al. (2022) where respondents located to the right of the political center are significantly less likely to select the least redistributive after information on the share of income paid on VAT by income deciles is provided. Considering information on education, we find that several studies provide information on actual spending on education or on teacher salaries (e.g., Lergetporer et al., 2018, Cattaneo et al., 2020). This tends to decrease polarization since people having different prior beliefs or political ideology move closer together in their political opinions once they are informed about actual education spending levels.

Moving to Table 5, we consider whether other characteristics of the information beyond the topics are associated with information having a polarizing or a depolarizing effect. We observe that information provided in graphic content, through videos or in bundle is negatively associated with polarization, but personal information is positively associated with it. We also find that information provided as a bundle is negatively associated with depolarization, showing that providing more than one information can actually both increase or decrease polarization. Again, while more research is needed to better understand these correlations, the fact that personal information to respondents on their own position in the income or wealth distribution and the middle-class bias. Finally, the fact that infographics and videos are negatively associated with polarization aligns well with the literature that shows that these tools may be more effective than text-only information to correct misconceptions or misinformation (Brandts et al., 2024; Goldberg et al., 2019).

4. Discussion

A necessary, albeit not sufficient, condition for information to have an effect on perceptions and/or preferences is that the recipient incorporates the information and thereby, at least to some extent, moves from being uninformed to being informed. The papers included in this literature review often provide information that is intended to correct a particular misperception, for example regarding one's place in the income distribution or about inequality levels in society. However, and as discussed above, studies frequently do not gather evidence regarding the impact of information on the perceptions that the information targets. Instead, it is often implicitly assumed that if preferences and opinions are impacted by the information treatment, perceptions must have changed as well. Whether this assumption is generally correct is an empirical question, but as the review shows, in the cases where evidence on the impact of information on perceptions is provided, we usually see respondents updating perceptions in the direction of the information provided.

When it comes to the effect of information on preferences and opinions, the review shows that the impact more often than not is null. In approximately a third of the cases covered in the review, redistributive preferences change in response to information and in a majority of those, or just over 20 percent of total cases, polarization is in turn (positively or negatively) affected.

The general population survey that was introduced in Section 2 of this paper showed that a solid majority of respondents believe that information can help reduce polarization. The survey also contained questions regarding their thoughts on what type of informational characteristics would be most likely to have this effect. In response survey participants said that it is important that the

¹⁸ We also run the same regressions using as independent variable if the study is published or not and we find that the coefficient was not significative reassuring us that publication does not bias our results.

information comes from a trustworthy source, is easy to understand, and is presented in a consistent fashion by several sources.¹⁹

In our systematic review, what stands out the most is that information that is directly related to the recipient is more likely to have an effect both on preferences and on polarization. Such information often concerns a person's true relative income ranking and, in those cases, information often leads to increased polarization. Given a middle-class bias (that leads people to perceive themselves as closer to each other in relative income than what is actually the case), the introduction of truthful, accurate information leads to poor (rich) people learning that they are even poorer (richer), relative to others, than they previously thought. To the extent that they express self-interested motives in their redistributive preferences (as for example Cruces et al., 2013; Karadja et al., 2017; Engelhardt and Wagener, 2018, find) polarization in redistributive preferences increase as a result.

Self-interest may however also be a contributing factor to depolarization. For example, Lergetporer et al. (2018), as well as Cattaneo et al. (2020), observe that as groups with more misperceptions on educational spending levels (generally with greater underestimation of these levels) integrate new and accurate information they tend to decrease their desired level of educational spending. This, in turn, aligns their preferences with those with lower misperceptions already advocating for a lower level of desired public spending.

When information does not directly concern the recipient, its effects are often muted. This can have several reasons. Information may, for example, be too difficult for respondents to process especially if it is sub optimally presented (c.f. Norton and Ariely, 2011; Eriksson and Simpson, 2012; Blaufus et al., 2015, 2020; Pennycook and Rand, 2019a, 2019b; Haghtalab et al., 2021). Several of the studies included in our review also discuss how difficulty connecting information with specific policies may lead to perceptions being updated (indicating that treated respondents do incorporate the information) while preferences and opinions remain unchanged (see e. g. Kuziemko et al., 2015; Haaland and Roth, 2020; Lergetporer et al., 2020). One way of overcoming this channel may be to present information in a more direct and accessible way as experiments providing personal information show. For example, Engelhardt and Wagener (2018) find that information that explicitly connects the income position of the respondent with the resulting effect on their status as net payer or net beneficiary of economic redistribution more effectively influences preferences than merely providing the relative income information. We also find support in our analysis that videos and infographics help to reduce polarization and as the literature suggests (Brandts et al., 2024; Goldberg et al., 2019), this can be related to the capacity of these digital tools to reduce misperceptions (and or capturing the attention of the respondents).

According to some scholars, another way to increase the effectiveness of the information uptake is to use a bundle with several pieces of information: While Hopkins et al. (2019) find that providing only statistical information about the size of the immigrant population has little effect on attitudes and opinions, Grigorieff et al. (2020) experience greater success presenting a bundle of information on the immigrant population (e.g., not only the size of the population, but also immigrants' characteristics, such as education levels, unemployment rates, etc.). In line with this, we find that presenting the treatment as a bundle of information has effects on preferences for redistribution and on polarization. Finally, presenting information as stories or narratives, rather than isolated facts, has been also found effective in other contexts (Graetz and Shapiro, 2011; Larsen and Levy, 2016; Duffy, 2018; Alesina et al., 2023) as well as providing information together with a reference point (e.g., increase in the top rate tax over time or inequality levels in other places) (Hope et al. (2022); Pellicer et al. (2019)). However, we do not find support for this in our review.

In conclusion, while the survey we conducted showed that the majority of respondents believe that information can help reduce polarization, the literature review shows that information and polarization within societies have a multifaceted relation depending on the capacity of the former to affect perceptions, opinions and preferences. While evidence suggests that information targeting recipients directly often leads to perceptual updates and consequent shifts in preferences, its impact on polarization varies. Notably, self-interest emerges as a significant factor, both contributing to and mitigating polarization depending on the context. Challenges arise when information is not directly relevant to recipients, potentially leading to muted effects due to processing difficulties or disconnect from policy implications. Strategies to enhance the effectiveness of information uptake include presenting personalized, accessible information, utilizing multimedia formats, and bundling information. Understanding these nuances is crucial for designing effective interventions to mitigate polarization and foster informed decision-making within societies.

5. Conclusions

Given that many people harbor misperceptions regarding key facts about society and that political polarization is increasing, it is intuitively appealing to believe that better informed citizens would lead to a less polarized society, and hence that information provision can help decrease divisiveness. This line of reasoning has been advanced by policymakers and we use an incentivized survey,

¹⁹ The N = 714 respondents (79%) who expressed the belief that polarization in society would decrease at least somewhat in response to truthful information provision to all voters were asked to rate the importance of the following informational characteristics (presented in random order). 1) That the information comes from a politically neutral source (rated on average 7.62 on a scale from 1 to 9, where 1 indicates that it is not important at all and 9 that it is very important). 2) That the information comes from a source that is regarded as trustworthy (8.16). 3) That the information is easy to understand (8.14). 4) That the information is presented in the form of statistics and numbers (6.12). 5) That the information is presented as part of a narrative to explain the world (6.18). 6) That several different sources present coherent information (7.91). 7) That the information comes from a scientific study (6.29). We also asked all respondents the circumstances under which they would support the idea of launching an informational campaign with the purpose of reducing polarization. They reported, on average, that this would be a good idea if several political parties or several media outlets launched the campaign together, or if an NGO launched it (They believed it would be a bad idea if the campaign were launched by governmental agency or by one party or one media outlet on their own).

with a sample of N = 900 self-described liberals, moderates and conservatives from the United States, to show that the general population also seems to share this belief.

We conduct a systematic review of the literature on misperceptions and information provision to investigate whether the beliefs about these links between misperception and polarization are empirically supported. The studies that we review did not originally aim to investigate polarization, but for other reasons they look for heterogeneities in misperceptions and/or investigate heterogeneous treatment effects. We take advantage of this to investigate the relationships between misperceptions, information provision, and polarization.

The patterns we find are more complex than the beliefs displayed by our survey respondents. The respondents believe, firstly, that a more informed society is a less polarized one. We show that this is quite often true (for example, when people align their educational preferences once misperceptions are corrected about educational spending and teacher salaries). However, sometimes the opposite holds, as in the case of relative income misperceptions, where bias often leads people to perceive themselves as closer to others than they actually are.

Regarding how information provision affects polarization, our survey respondents express the belief that information can decrease polarization. Empirical studies, however, paint a significantly more complex picture. Most commonly, information has no effect on polarization, but when it does, it equally often goes in the direction of increasing and decreasing polarization. The former happens when information leads one or more groups to adjust their preferences in a way that moves them further away from the center in their opinions.

While our work has identified specific lenses – misperceptions and information – through which to analyze polarization, it has several limitations. First, we restrict our analysis to redistributive preferences, despite the fact that many other policy preferences can be considered (e.g., attitudes towards migrants, preferences over health outcomes, labor supply choices, etc). However, our goal was to produce a living resource linking the available evidence on misperceptions to polarization in both conceptual and empirical terms.

Second, most studies refer to the Western World, and the US more specifically, and thus the evidence listed over-represents populations from this region. While we include some studies conducted in the Global South (e.g., Mexico and China), the question about the extent to which our conclusions generalize to other regions of the world remains open.

Finally, it should be noted that the empirical literature discussed here is still young. Hence, despite the effort of our study and of recent others (Kozyreva et al., 2022; Voelkel, 2022), it remains an open question the describe the exact circumstances under which information has polarizing or depolarizing effects. Additional studies about this topic, for example in the form of survey experiments where the way information is presented differs by treatment, will be a necessary to provide conclusive answers. At this point, it is important for those interested in reducing polarization to remember that not all misperceptions are associated with polarization, and that even when misperceptions are widespread, correcting them is not a foolproof tool for bringing people closer together. While it is intuitively appealing to think that providing truthful information about society is a net positive, and that it will surely bridge divisiveness, in practice much empirical work shows that the opposite is often true. Another interesting avenue for future research may be to conduct an information experiment where treated participants are informed about the empirically documented links between information and polarization, and see how such information does, or does not, impact demand for redistribution.

CRediT authorship contribution statement

Maria Marino: Conceptualization, Formal analysis, Investigation, Writing – original draft, Writing – review & editing, Methodology, Roberto Iacono: Conceptualization, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing. Johanna Mollerstrom: Conceptualization, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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Appendix A. Supplementary data

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