# The Polarization of Reality 

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Evidence is growing that Americans are polarized not only in their views on policy issues and attitudes towards government and society, but also about their perceptions of the same, factual reality. In this paper we conceptualize how to think about the polarization of reality and review recent papers that show that Republican and Democrats (as well as Trump and non-Trump voters since 2016) view the same reality through a different lens. Perhaps as a a result, they hold different views about policies and what should be done to address different economic and social issues.

The direction of causality is unclear: On the one hand, individuals could select into political affiliation based on their perceptions of reality. On the other hand, political affiliation affects the information one receives, the groups one interacts with, and the media one is exposed to, which in turn can shape perceptions of reality. Regardless of the direction of causality though, this is not about having different attitudes about economic or social phenomena or policies that could justifiably be viewed differently from different angles. What is striking is rather to have different perceptions of realities that can be factually checked.

We highlight evidence about differences in perceptions across the political spectrum on social mobility, inequality, immigration, and public policies. We also show that providing information leads to different reassessments of reality and different responses along the policy support margin, depending on one's political leanings.

Earlier Literature: Some differences

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in the perceptions between Republican and Democrat voters have been illustrated in the political science literature. Bartels (2002) shows that party identification shapes perception of economic indicators that can be seen as the government's "performance indicators" (e.g. unemployment or inflation), with Republicans being more optimistic than Democrats on economic variables during the Reagan presidency and vice-versa. ${ }^{1}$ Similar results about the importance of partisan assessment of the government's performance in shaping perceptions of economic indicators is found in Conover, Feldman and Knight (1986) and Conover, Feldman and Knight (1987). More recently, Jerit and Barabas (2012) show that people perceive the same reality in a way consistent with their political views and that learning is selective: Partisans have higher knowledge for facts that corroborate their world views and lower for facts that challenge them. Heterogeneous updating to identical information is also shown for attitudes towards the Iraq war in Gaines et al. (2007). Prior, Sood and Khanna (2015) and Bullock et al. (2015) demonstrate that people give "partisan" answers to factual questions in surveys, but the partisan gap is reduced if monetary incentives are offered for correct answers.


## I. Conceptual Framework

A simple conceptual framework can help organize the empirical results reviewed (see Stantcheva (2019) for the full-fledged model). It is illustrated in Figure 1.

People can hold many "perceptions," which are estimates of true parameters on a variety of topics such as the share of immigrants, the share of national income going

[^0]to the top $1 \%$, or the elasticity of top incomes to top tax rates. These perceptions have true, empirical counterparts. "Policy views" are formed as functions of these perceptions and can range from the desired top tax rate to the ideal level of government intervention. Perceptions interact with each other: each policy view can be a function of several or all perceptions. For instance, as we will see below, a given perceived level of social mobility will translate into different support for redistribution based on people's perceptions of the competence and trustworthiness of the government. ${ }^{2}$

How perceptions are determined depends on how learning occurs. People receive "signals" which are pieces of information and which are weighted in order to be translated into a change in perceptions. Signals do not have homogeneous impacts on all people's perceptions and not all people receive the same signals. People may thus end up with very heterogeneous perceptions and misperceptions.

First, suppose that information and signals are costless. Even entirely rational updating rules will depend on the prior level of (possibly, all) perceptions, as well as on the weight placed on the signal. The interaction between perceptions means that the weight and updating for an identical signal will depend on all prior perceptions. A signal can move more than one perception at the same time. The weight on the signal is endogenous to perceptions (indicated by the arrow in the figure) because it could depend on its assessed reliability of which is yet another perception held by people.

Second, imagine information is costly to acquire. Then, in addition to the interaction between existing perceptions and updating just described, the set of signals acquired is also endogenous to perceptions (as indicated again by the arrow in the figure). People have to decide which information to

[^1]incur costs for, which will depend on their baseline perceptions. Below, we describe how people with different baseline perceptions indeed have different willingness to pay for information.

What makes learning particularly difficult in this setting is that the actual true values of the variables that people form perceptions about either change over time (e.g.: the share of immigrants) or are difficult to estimate, even for experts (e.g.: the elasticity of unemployment to unemployment benefits).

Finally, note that while behavioral features could play a role as well, there is no need to suppose that if people had the exact same vector of perceptions, there would be disagreement on policy views or updating (i.e., willful ignorance or partisan bias per se in the shape of the function mapping perceptions to policy views). As long as people have a whole set of heterogeneous perceptions, there will be completely different policy views and any signal will be (rationally) acquired and weighted based on the full set of perceptions, thus leading to different updating processes too.


Figure 1. : From Information to Policy Views

## II. The American Dream

Is the American dream alive? The answer people give to this question turns out to be a key determinant of support for redistribution. If perceived social or intergenerational mobility is high, the resulting inequalities in income and wealth are perceived as more fair, since it is thought that everyone had more equal opportunities to start with.


Figure 2. : Differences in Perceptions across the Political Spectrum

Source: Top panel: Alesina, Stantcheva and Teso (2018). Bottom panel: Kuziemko et al. (2015).

Using detailed surveys on several thousands respondents, Alesina, Stantcheva and Teso (2018) investigate the perceptions about intergenerational mobility in the U.S. and Europe. They show that Americans are not only more optimistic about social mobility than Europeans, but that they are overly optimistic given reality: they overestimate the chances of making it from the bottom to the top, i.e., for a child born in the bottom quintile to make it to the top quintile.

Perceptions of social mobility are correlated with political orientation. Americans who identify themselves as conservative (i.e., right-wing) on economic issues believe that the probability that a child born in the bottom quintile makes it to the top is $12 \%$; liberals (left-wing) respondents believe that it is $10.5 \%$. Thus, both groups overestimate the correct answer, which is $7.8 \%$, implying that belief in the strongest form of the "American dream" - making it from rags to riches - is still relatively prevalent. However, perceptions about the chances of making it out of poverty and into the middle class are very different across the political spectrum, as illustrated in the top panel of Figure 2. The perceived probability that a child born in the bottom quintile remains in that quintile as an adult is $37.4 \%$ for left-wing respondents and $29.5 \%$ for
right-wing respondents (the correct number is $33.1 \%$ ). The perceived probability such a child makes it into the middle class (the third quintile) is $19.3 \%$ for liberals and $24.1 \%$ for conservatives (the actual probability is $18.7 \%$ ).

In a qualitative version of this question, $51.3 \%$ of left-wing respondents, as compared to $31.3 \%$ of right-wing respondents, believe that chances are very low for children born in the bottom quintile to make it to the top. $72 \%$ percent of right-wing respondents versus $38.6 \%$ of left-wing ones agree with the statement that "In the U.S. everybody has a chance to make it and be economically successful." Perceptions of social mobility are especially (over)optimistic in areas where actual social mobility is the lowest, namely the South and Southeast of the U.S., which are regions where the Republican vote is particularly high. ${ }^{3}$

Alesina, Stantcheva and Teso (2018) show that pessimism about social mobility is associated with more favorable views towards redistribution, especially in terms of more progressive tax system and of more spending for equal opportunity policies like education or health. Different perceptions about the same reality across the political spectrum are thus correlated with different policy preferences.

To establish causality between perceptions and support for policies, the authors use an experimental treatment, whereby a randomly-selected group of respondents sees pessimistic information about mobility, highlighting that the chances of children from poor families of rising up the income ladder are small, while the chances of children from rich families remaining rich are relatively high. The control group sees no such information. After seeing this pessimistic information, both left and rightwing respondents become more pessimistic about mobility, suggesting that the information is indeed convincing. But only left-wing respondents become (even) more supportive of redistribution. Right-wing

[^2]respondents do not, possibly because, as the authors argue based on their detailed survey questions, they view the government as the "problem" and not the "solution." As explained in the framework, even when faced with the exact same information about reality, people may translate it into political preferences in different ways based on their other existing perceptions.

## III. Inequality and Tax Policy

Perceptions of reality also differ along the political spectrum when it comes to inequality and tax policy. Kuziemko et al. (2015) show that $61 \%$ of Conservatives against $78 \%$ of Liberals (correctly) believe that income inequality in the U.S. has increased in recent decades. Actually showing respondents information about the level and change in inequality in the US has the unexpected effect of making them trust the government less, perhaps because they believe - as in the aforementioned study on social mobility - that the government may be responsible for the rise in inequality or ineffective at mitigating it. In line with our framework, perceptions are jointly determined and what appears at first sight to be a signal about one type of perception only (here, inequality), can end up shifting other perceptions too (here, the competence of the government).

Stantcheva (2019) shows that Republicans believe that the top $1 \%$ of earners receive $40 \%$ of national income and the top $1 \%$ wealth holders hold $53 \%$; for Democrats these numbers are $48 \%$ and $64 \%$ respectively. Furthermore, Stantcheva (2019) highlights that political polarization exists even in views of current factual features of the tax system and in directions that can be expected based on ideology. For instance, Democrats believe that $23 \%$ of households pay no income tax; Republicans believe it is $28 \%$. Republicans perceive the average top income tax rate to be $31 \%$, Democrats believe it is $25 \%$. When it comes to historical perceptions, Kuziemko et al. (2015) show that $47 \%$ of conservatives and $60 \%$ of liberals understand that top income tax rates were higher in the 1950s-60s than to-
day. Strikingly, different views also extend to one's own position in society: Stantcheva (2019) shows that conditional on actual income, being Republican increases one's perceived social class.

## IV. Immigration

Another issue on which right and leftwing respondents have starkly different views is immigration. Alesina, Miano and Stantcheva (2018) investigate how natives perceive immigrants in their country and how this affects their preferences for immigration policies and redistributive policies, using custom-designed surveys in the U.S. and five European countries (France, Italy, Germany, Sweden, and the U.K.). They ask detailed questions about a wide array of immigrants' characteristics: their share, their education, unemployment levels, reliance on government transfers, and countries of origins. ${ }^{4}$

All respondents starkly overestimate the share of immigrants in the U.S. and believe on average that it is $36 \%$; the actual share of legal immigrants $10 \%$ of the U.S. population (around $13.5 \%$ if we included illegal immigrants too and about $26 \%$ including second-generation immigrants). While there is no heterogeneity in the (mis)perceived share of immigrants, perceptions differ a great deal when it comes to the socio-economic and cultural composition of immigrants. Both Republican and Democrat respondents overestimate the share of immigrants that are Muslim, but Republicans' misperceptions are 5 percentage points higher than Democrats' ones (25.2\% vs $20.7 \%$, the true share is about $10 \%$ ).

Republicans believe less immigrants have a college degree than do Democrats; they also overestimate the share of immigrants that have not completed high-school to a greater extent. They perceive more immigrants to be unemployed. The divide is even more significant when it comes to perceived reliance on the welfare state.

[^3]Republicans are almost twice as likely as Democrats to think that an average immigrant receives twice as many transfers (or more) as a native resident, and that on net "Mohammad" receives more from the government than "John" (who is identical in all respects to Mohammad, except that he is not an immigrant). The effect of the political affiliation on these perceptions is robust to controlling for the full array of individual characteristics (e.g.; age, education, income, occupation, being a second generation immigrant, etc.) or local factors at the commuting zone level (such as the local unemployment and poverty rates, racial segregation, share of immigrants or minorities, etc.).

This heterogeneity in perceptions does not appear in the answers about nonimmigrants' characteristics, suggesting that, while respondents may in general have inaccurate perceptions on many issues, it is mostly on partisan issues such as immigration, that perceptions diverge across the political spectrum. If respondents are split according to whether they voted for Trump, the differences in perceptions are wider than between Democrats and Republicans overall.

Why do these misperceptions persist? First, perhaps because this issue is prone to political narratives, providing factual information on the actual shares and origins of immigrants - as these authors do experimentally- only weakly moves their perception of these statistics. On the other hand, simply priming respondents in an experimental way to think about immigrants before answering questions about redistribution reduces their support for redistribution. Second, demand for accurate information on this politically-charged topic seems to be systematically correlated with political views and with the baseline misperceptions. When respondents are given the option to pay a randomized amount in order to receive the accurate information about the characteristics of immigrants, respondents who have the most inaccurate (which is equivalent here to the most negative) views of immigrants are less willing to pay for information. In addition, even con-
ditional on the level of misperception and other individual characteristics, Republican respondents are $14 \%$ less willing to pay to receive correct information about immigrants. This echoes the phenomenon described in the model, whereby the signal (information) acquisition itself is endogenous to existing perceptions and can thus prevent learning.

## REFERENCES

Alesina, Alberto, Armando Miano, and Stefaniel Stantcheva. 2018. "Immigration and Redistribution." NBER Working Paper No. 24733.

## Alesina, Alberto, Stefanie

 Stantcheva, and Edoardo Teso. 2018. "Intergenerational Mobility and Preferences for Redistribution." American Economic Review, 108(2): 521-554.Bartels, Larry M. 2002. "Beyond the Running Tally: Partisan Bias in Political Perceptions." Political behavior, 24(2): 117-150.

Bullock, John G., Alan S. Gerber, Seth J. Hill, and Gregory A. Huber. 2015. "Partisan Bias in Factual Beliefs about Politics." Quarterly Journal of Political Science, 10(4): 519-578.

Conover, Pamela Johnston, Stanley Feldman, and Kathleen Knight. 1986. "Judging Inflation and Unemployment: The Origins of Retrospective Evaluations." The Journal of Politics, 48(3): 565-588.

Conover, Pamela Johnston, Stanley Feldman, and Kathleen Knight. 1987. "The Personal and Political Underpinnings of Economic Forecasts." American Journal of Political Science, 559-583.

Gaines, Brian J, James H Kuklinski, Paul J Quirk, Buddy Peyton, and Jay Verkuilen. 2007. "Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq." Journal of Politics, 69(4): 957-974.

Jerit, Jennifer, and Jason Barabas. 2012. "Partisan Perceptual Bias and the Information Environment." The Journal of Politics, 74(3): 672-684.

Kuziemko, Ilyana, Michael I Norton, Emmanuel Saez, and Stefanie Stantcheva. 2015. "How Elastic are Preferences for Redistribution? Evidence from Randomized Survey Experiments." American Economic Review, 105(4): 1478-1508.

Prior, Markus, Gaurav Sood, and Kabir Khanna. 2015. "You Cannot be Serious: The Impact of Accuracy Incentives on Partisan Bias in Reports of Economic Perceptions." Quarterly Journal of Political Science, 10(4): 489-518.

Stantcheva, Stefanie. 2019. "Understanding Economic Policies: What do People Know and How Can they Learn?" Harvard University Working Paper.


[^0]:    ${ }^{1}$ For instance, in 1988, Democrats were more likely to report that unemployment and inflation had increased since 1980, when the opposite was true.

[^1]:    ${ }^{2}$ In addition, some perceptions may put consistency constraints on others. For instance, one cannot simultaneously believe that all immigrants are unemployed, yet your sector's jobs are mostly taken by immigrants. This could be called "Schroedinger's" immigrant and we do not need to rely on such mental models to rationalize the results presented.

[^2]:    ${ }^{3}$ The correlation between the perceived probability to make it from the bottom to the top quintile and the actual state-level probability is -0.29 .

[^3]:    ${ }^{4}$ Perceptions about immigrants are benchmarked against perceptions about natives, by asking respondents the same questions about non-immigrants in their country.

