Income deciles vs. prototypes: How do people estimate economic differences?*

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Abstract

Accurately measuring perceptions of economic inequality is complicated. Objective measures of inequality are abstract and mathematically complex, so questions about them tend to follow suit. However, if questions are too complex, then respondents may react with "satisficing" responses, uninformative responses, or not respond at all. In this paper, we compare how respondents respond to different types of questions about incomes and income inequality, in the hopes of developing more intuitive survey questions about inequality. In a survey fielded to representative samples in Switzerland, Germany, and France, we ask respondents about inequality in two different ways. First, respondents are asked to estimate household incomes at specified percentiles of the income distribution (10th, and one of 90th or 99th). Later in the survey, they are asked to estimate the incomes that qualify a household as rich or poor, respectively. We anticipate that because the percentile questions are relatively abstract, respondents may satisfice by relying on their prototypes of the rich and the poor. We also anticipate that because the percentile questions are more mathematically involved, we may see systematic non-response patterns. The results show that in all three countries, the 90th percentile, the 99th percentile, and the rich are seen as significantly different in terms of household income. In other words, our expectation of satisficing is not borne out. We do however find significant rates of non-response and uninformative responses in the percentile questions (but not the questions about the rich/poor), in ways that appear to significantly affect the results.

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Introduction

It is now widely recognized that subjective perceptions of inequality are crucial in explaining demand for redistribution, while objective inequality plays less of a role. While the literature regarding popular perceptions of inequality is expanding fast (see recent reviews by Castillo, Garcia-Castro, and Venegas (2022), Easterbrook (2021), and L. Taylor Phillips et al. (2020a)), major issues remain unresolved. One important challenge lies in how to most appropriately measure subjective perceptions of inequality. This challenge is partly due to the inherent complexity and abstraction of inequality as a concept. Additionally, the challenge is compounded by the practical matter that the literature about inequality perceptions spans across many social science disciplines, including psychology, sociology, political science, and economics. As a result, even when concentrating solely on perceptions of economic facts (as distinct from broader concepts of inequality), the literature still offers a number of ways to conceptualize and measure these perceptions (see Castillo, Garcia-Castro, and Venegas (2022) for a discussion). In general, a consensus appears to be brewing around the conclusion that many previously used survey questions are complex and cognitively demanding (Pedersen and Mutz (2019), Heiserman and Simpson (2021), Bogard, West, and Fox (2022)), and recent contributions have tried to offer more intuitive ways of measuring perceptions Garcia-Castro, Willis, and Rodriguez-Bailon (2019).

In this article, we build on these efforts to simplify survey measures of perceived economic inequality. Specifically, we compare the performance of one new, simplified set of questions (which asks about the income threshold of being poor / rich) to a slightly more traditional, yet also relatively simple, way of asking questions about perceived inequality (which asks about the incomes of specific percentiles of the income distribution). By fielding these two sets of questions to the same group of survey respondents, we are able to compare the approaches to each other in more detail than has been possible in the past. We focus our characterization and comparison of these items on two potential concerns that arise from the literature on existing measures of perceived inequality: satisficing / shortcuts, and non-response / uninformative response. First, we observe that if survey items are too complex and individuals lack information on them, they might react with satisficing responses, whereby they substitute an accessible mental quantity for the one being asked about. This may lead to an appearance of informed responses on inequality items, where in fact shortcuts have been used and simpler or coarser survey questions would yield similar results. Second, we observe that when items are complex, then rates of "don't knows" and logically impossible responses also increase. This may lead to a misrepresentation of public opinion, if non-responders are systematically different from responders. We examine whether satisficing and non-response occur, and whether they occur at different rates for the different types of questions.

We first ask whether people engage in satisficing (Krosnick 1991) when responding to the percentile items. If the percentile items are difficult for respondents to reason about, then they may substitute their response with a more accessible quantity. For example, instead of giving a guess specific to the question of what a household at the 90th or 99th percentiles of the income distribution makes, respondents may simply answer with a quantity that they associate with being rich. If this satisficing is widespread, then we should expect significant overlap in responses to questions about incomes of households at the 90th / 99th percentiles with responses that are more open-ended and simply ask respondents what incomes they think would make a household "rich". At the bottom end of the distribution we would expect a similar overlap between estimates of household incomes at the 10th percentile, and incomes that make a household "poor". Finding such overlap, we argue, would be evidence that people answer these items by relying on social prototypes rather than numeric information.

We then turn to another dimension of response quality, and look at the share of missings and non-useful answers across different measures. In particular, we argue that complex survey questions risk systematic patterns of non-response that disadvantage less sophisticated respondents. Systematic patterns of non-response could have consequences not only for our aggregate indicators of perceived inequality but also for the conclusions we as scholars may draw about the correlates of support for redistribution.

We use data from an original online survey in Germany, France and Switzerland, fielding the two different measures of inequality perceptions to large quota-samples in each country. Our findings indicate that propotypes of the rich are situated somewhere between perceptions of the rich (90th percentile) and the very rich (99th percentile); similarly, perceptions of the poor are close to but not the same as perceptions of the 10th percentile. We therefore conclude that evidence in favor of widespread satisficing is limited. Looking at non-response, we find that more complex measures have much higher shares of missing and non-informative responses, and that education, household income, and political ideology are all related to this pattern of non-response.

Perceptions of inequality and their measures

There are a wide range of ways in which researchers have measured perceptions of inequality (for recent reviews see L. Taylor Phillips et al. (2020b), Easterbrook (2021), and Castillo, Garcia-Castro, and Venegas (2022)). A variety of factual economic questions have been used; this includes salaries of common professions, incomes of different segments of the population, shares of wealth or incomes for different shares of the population, or the shape of the income distribution in a country. These items can broadly be divided into

relative measures that focus on percentages of capital or income (e.g. Norton and Ariely (2011)) or visual diagrams of different shapes of a society (e.g. Evans, Kelley, and Kolosi (1992), Gimpelson and Treisman (2018)) on the one hand, and *absolute* measures that focus on average incomes or amount of wealth owned by different segments of the population (e.g. Osberg and Smeeding (2006), Pontusson et al. (2020)) on the other.

The discussion about the pros and cons of different measures has intensified recently (e.g. Heiserman and Simpson (2021), Easterbrook (2021), Knell and Stix (2020), Trump (2023)), but the literature is far from having settled on the quality of different measures. There is some evidence suggesting that absolute measures perform better (i.e. are linked more strongly to more downstream attitudes such as demand for redistribution) than relative measures Knell and Stix (2020). Also, it seems to be the case that estimating the incomes of the rich is a more difficult task than estimating incomes at lower end of the income distribution (Heiserman and Simpson 2021). One reason for the latter finding could be that people don't know rich individuals personally, and the resources available to the rich is therefore more difficult to observe than the resources available to the poor (Jachimowicz et al. 2022).

The fact that the concept of inequality is, by definition, abstract and multi-faceted makes it particularly difficult to design good survey questions about it. At the very least, to answer a survey question about inequality, one has to consider the higher end (aka the rich) and the lower end (the poor) of a distribution at the same time, which requires some mathematical sophistication. Given this inherent complexity, it comes as no surprise that a reliance on shortcuts or heuristics is well documented for perceptions of inequality (e.g. Kahneman, Slovic, and Tversky (1982)). For example, when people consider inequality, they may bring to mind salient exemplars of extremely wealthy or impoverished others, while the median earner (or rather the mental map of this person) might be less mentally available Putnam-Farr and Morewedge (2021). This, in turn, may affect their broader perceptions of inequality (Evans, Kelley, and Kolosi 1992). Similarly, people rely excessively on local information and individuals known to them, leading them to over-weight their own segment of society. One result of such reliance could be the documented biased perceptions of their own position in the income distribution (e.g. Cruces, Truglia, and Tetaz (2013), Karadja, Möllerström, and Seim (2017), Condon and Wichowsky (2020)).

Prior research in survey methodology shows that substitution can occur relatively easily: when asked a survey question about an abstract entity of which respondents have little knowledge, then rather than putting in the cognitive effort necessary to provide an answer, respondents might respond with the first item that comes to mind or that appears sufficiently close to a likely correct answer. Such strategies are known as ''satisficing"(Krosnick 1991), i.e. settling for the first answer that seems acceptable. This means that

respondents will be less thorough about a question's meaning, search their memories less comprehensively and integrate the retrieved information less carefully than a researcher might expect. At the extreme, respondents may even select an answer without reference to any internal process, i.e. they may choose an answer arbitrarily. Krosnick (1991) lists three factors that influence satisficing: task difficulty, respondent ability, and respondent motivation. While ability and motivation are respondent specific, task difficulty is also a function of the question. In other word, depending on the (perceived) level of difficulty of a question, we expect more or less satisficing on the side of survey respondents.

The observation that most survey questions about inequality are relatively complex suggests that many respondents may satisfice when giving survey responses. As part of this, people may substitute a complex entity (such as the income of a specific percentile in the income distribution) with a simpler entity (such as the income of a meaningful social group or prototype, such as the rich). This reasoning was made explicit by Trump (2023) who proposed asking directly about such prototypes, i.e. asking what the respondents considers the income of a "rich" or a "poor" household to be. In this paper we directly contrast this approach with a slightly more traditional way of asking the question: referring to the 90th and 99th percentile for the top end of the distribution, and the 10th percentile for the bottom.

We expect that the difficulty of the percentile questions is higher than for prototypes of rich and poor, and thus we expect to see two different manifestations of this relative complexity. First, we expect that some respondents will refer to their generic perceptions of the "rich" and the "poor" when answering questions about the 90th/99th and 10th percentiles. This would manifest in similar distributions of estimates for all three categories. Second, we expect to see more non-response or non-useful answers for the percentile items. If differential non-response is due to the complexity of the percentile items, we would additionally expect demographic variables to predict non-response: those with lower levels of formal education in particular would likely be under-represented among responders to the percentile items. The potential for demographic variation in non-response is important: arguably, if the item non-responses and ad-hoc answers are distributed randomly across the population, the disadvantage of these items does not loom very large, especially if the number of the remaining survey respondents is still high. However, if these tendencies are systematic, and specific segments of the respondents are more likely not to answer a question at all or not with the necessary cognitive involvement, then this has consequences for the estimation of aggregate quantities such as a mean or median as well. In other words, which questions we ask in a survey may have consequences for the conclusions we can draw. Finally, for perceptions of inequality, systematic tendencies in item non-response and non-useful answers with regard to income, education or gender could be especially troublesome as all these factors are known to influence subjective evaluations of inequality (see e.g. Volpi and Giger (2022))

and thus not reaching certain groups as the low-educated or low-income could seriously impact the overall quality of our estimates.

In sum, this paper compares two sets of survey questions, each designed to elicit perceptions of economic inequality. We ask whether one set of items is easier to answer than the other, and whether any such differences appear to have consequences for data quality. In the next sections we describe the survey items in more detail, then introduce the three-country survey in which we fielded the questions in parallel, and then report our findings.

Data and Methods

We asked these questions in three simultaneous surveys fielded to quota-based samples in Germany, France, and Switzerland in December 2022. The online survey was fielded by LINK/YouGov to online survey panels in all three countries and was approved by the Ethics commission at the University of Geneva (CUREG-2022-11-121). The survey focused on perceptions of inequality, evaluations of its fairness, and policy and vote preferences more generally. The number of observations per country is 2,000 and the survey contains country-specific sampling quotas by education, gender, and age.

The first inequality perception item in the survey references percentiles of the income distribution. Specifically, we asked about perceptions of household incomes for three typical households (poor, median and rich/very rich) and accompanied the question with a visualization. An example visual prompt is shown in Figure 1; this image is showing the "rich" variant. Each respondent had to guess the income of the poor (10th percentile) and the middle (50th percentile) income but we randomly varied whether the respondents would see the rich (90th percentile) or the very rich (99th percentile) question. See Pontusson et al. (2020) for a similar approach to inequality perception items. After some cooling-down questions, we then asked the second inequality perception item: "At what level of income would you say that a household becomes rich? In other words, how much money does a family need to make [per year/month] for you to consider them rich?" and the same for becoming poor. See Trump (2023) for more details on the rationale behind this wording.

The percentile income questions are always asked in reference to annual incomes. However, the unit for the rich / poor varies by country: to accommodate cultural variation in how people usually talk about incomes, the Swiss and the Germans respond to rich / poor threshold questions in terms of monthly incomes, while the French respond to these items in annual incomes. Thus, in France the units in which the responses are elicited are comparable across all categories, while in Germany and Switzerland they are asked in different

units. While this has some downsides for cross-country comparison, it also means that in Germany and Switzerland we can rule out anchoring as the reason for potential overlap in answers across question type. All calculations below are performed after standardizing responses to annual incomes. Before analysis, we exclude the top and bottom 1% of responses in each category; this reduces the impact of outliers (particularly for the top income estimates). Later in the manuscript we also calculate rates of non-meaningful responses, which we categorize as estimates of the 90th / 99th / rich thresholds that fall in the bottom decile of the actual income distribution; this is the only indicator calculated prior to the exclusion of the top and bottom 1% of responses.

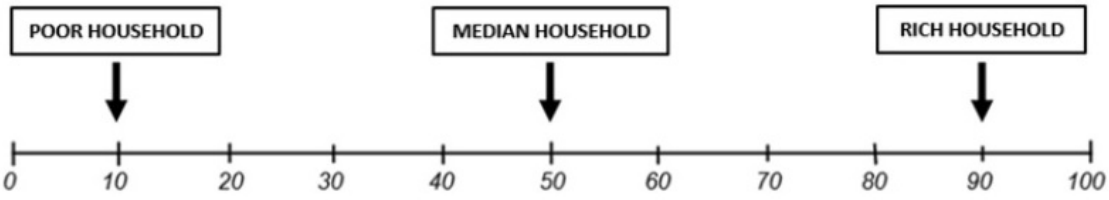

Figure 1: Visual illustration that accompanied percentile prompts

Results

Comparing prototypes of income categories

First, we ask whether respondents appear to reply in the same way to questions about the 90th / 99th percentiles, and 'the rich', respectively. If the answers to these items look the same, this would be indicative of reliance on social prototypes rather than drawing on more detailed numeric information. Recall that whether a respondent was asked about the 90th / 99th percentile was randomly assigned, while all respondents were asked about the 10th percentile, and all respondents were also asked about the rich and the poor. As a result, the samples in the figures that follow vary accordingly, with the 90th and 99th percentile samples consisting of a random half of the sample in each country.

Figure 2 shows the mean estimates for the three thresholds (90th percentile, 99th percentile, and rich) by country. The horizontal lines indicate the true values for annual disposable incomes at the 90th (solid line) and 99th (dashed line) percentiles in each country, respectively. The Y axis is constant across countries to illustrate cross-country differences in real and perceived inequality (a direct comparison requires treating EUR and CHF as equally valued, which at the time of survey fielding was a reasonable approximation).

In all three countries, there are statistically and substantively significant differences between perceptions of how much money the 90th and 99th percentiles make. Additionally, in all three countries we also see a difference between these categories and the more ambiguous category of "the rich". In both Switzerland and Germany, mean perceptions of the threshold for "the rich" are somewhere between the perceived 90th and 99th percentiles. Interestingly, this difference occurs even though the prompt for the 90th percentile asked about "the rich", but with the addition of the visual representation shown in Fig. 1. In France, the threshold for rich is below the 90th as well as the 99th percentiles; exploring the distribution of responses in more detail reveals that this is because the French responses have a lower share of very high estimates, combined with a larger share of estimates that fall in the 60th-90th percentiles of the actual income distribution. France is also the only country where the respondents do not over-estimate the incomes of the 90th and 99th percentiles; both Switzerland and Germany have mean estimates of these categories that exceed the actual cut-offs for these percentiles (this is true even after, as mentioned above, exclusion of the top 1% highest estimates in each category to reduce the influence of outliers).

These results are not consistent with the idea that these different categories are interchangeable in citizens' minds, nor that the concept of "the rich" gets substituted in as a satisficing strategy when respondents are asked about the 90th and 99th percentiles. Instead, it appears that the socio-political conversation surrounding inequality is sufficiently detailed that there are meaningful (and broadly reflective of reality) differences between these three categories. The implication for politics is that citizens may be responsive to subtle differences in political rhetoric, for example when politicians discuss raising or lowering taxes on the rich, the top 10%, or the top 1% of earners. The implication for survey researchers is more complicated, because the results indicate a nuance in public perceptions of these categories that does not make it easier to choose between these survey items: none stand out as a better approximation of informal perceptions of income inequality than others. We tentatively conclude that the choice of survey item will need to be context-dependent, chosen based on the specifics of the research project at hand.

Turning to low-end estimates, Figure 3 shows the mean estimates for the low-income thresholds of the tenth percentile and "poor", by country. The orange line reflects the actual disposable income of a household at the tenth percentile. Here, we see that the differences between the categories are, in raw units of currency, smaller than they are for the rich - this makes sense given that estimates of poverty are naturally rounded at zero, so severe underestimation is not possible (while severe overestimation for the rich is possible). We also see that respondents here, as above, distinguish the categories of the 10th percentile and 'the poor'; again this occurs despite the 10th percentile item specifying that the percentile arrow in the prompt image refers to the poor. In Switzerland and Germany, the mean perceived poverty threshold is above both the real and

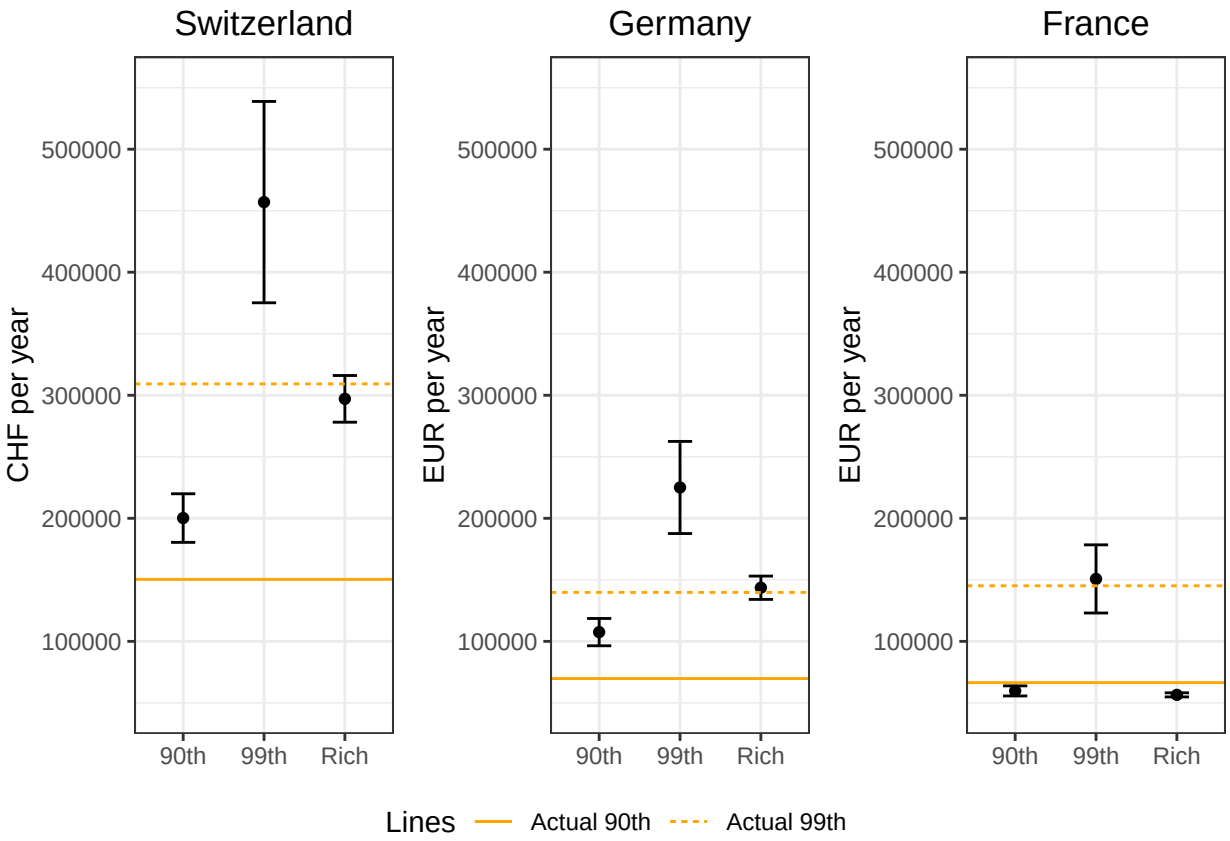

Figure 2: Mean estimates of incomes at different thresholds

the perceived 10th percentile of incomes; in France the perceived poverty threshold is very close to the actual 10th percentile, but above the perceived 10th percentile cut-off. Again, we conclude that these terms have different resonance among the mass public, and that we do not find evidence of wide-spread satisficing.

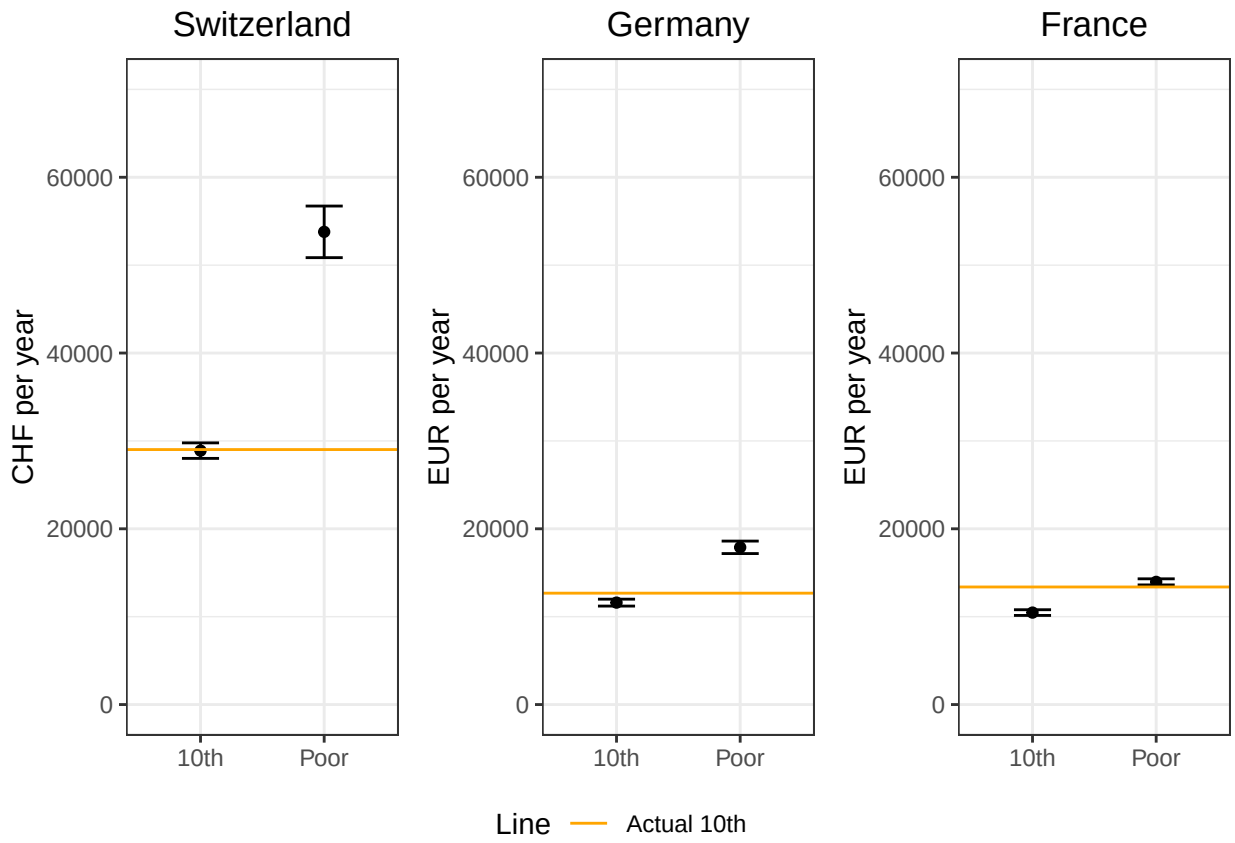

Figure 3: Mean estimates of low incomes at different thresholds

Differential response rates

Looking beyond average perceptions, we are also interested in differential response rates. Table 1 shows the response rates for the top percentile and "rich" questions. Response rates to the percentile items are consistently much lower than for the question that asks people to estimate what it takes to be rich; the latter consistently has response rates above 95%. The percentile item response rates, which hover in the mid 80% range, are not unusually low, but they are significantly lower than response rates to the "rich" question. Contrasting the results from above, this drop in response rate, which is quite consistent across the three countries, indicates that the percentile items may be more difficult for people to answer.

Looking beyond missingness, a significant share of those who respond to the percentile items regarding

Table 1: Response rates by high-income question type

	90th percentile	99th percentile	Rich
Switzerland	0.87	0.88	0.97
Germany	0.83	0.86	0.98
France	0.79	0.81	0.97

Table 2: Rates of useful responses to high income decile questions

	Missing estimate	Very low estimate	Useful estimates
Switzerland	0.11	0.22	0.68
Germany	0.12	0.22	0.66
France	0.18	0.18	0.64

the 90th and 99th percentiles give responses that fall in the bottom decile of the actual income distribution. While some variation in subjective perceptions of what it takes to be rich are expected, perceptions that place the cut-off for rich near or below the actual poverty line are probably the result of either a misunderstanding or extreme satisficing. Table 2 shows the rates of these responses by country. After removing non-responses as well as unusually low responses, we are left with only about two thirds of the samples who give what we call "useful" responses to the percentile questions. We see similar, but less pronounced, trends of data loss through non-response for the low-income items (see table 3), though here the drop-off consists entirely of non-response, as we do not observe any estimates that we might count as "non-useful". This corroborates the observation made above that incomes of the poor are easier to guess than the incomes of the rich.

A loss of almost a third of the sample is a significant loss, especially if the lost data is not missing at random, but rather reflects systematic differences in whose perceptions are captured. To explore the potential consequences of missing data in the percentile items, we compare the perceptions of "what it takes to be rich" between respondents who gave "useful" estimates and those who did not. We cannot know what non-responders would have said had they answered the percentile items, but we can get a sense of whether their perceptions of the rich are systematically different, by comparing the two groups' perceptions of what it takes to be rich.

Table 3: Response rates by low-income question type

	10th percentile	Poor
Switzerland	0.84	0.95
Germany	0.82	0.97
France	0.77	0.96

Figure 4 shows mean estimates of these various thresholds at the upper end of the income distribution. Answers to the 'what it takes to be rich' item are separated by whether respondents gave useful answers to the percentile questions. The light bars show percentile estimates, as well as estimates for the threshold of "rich", for respondents who gave useful answers to the percentile questions. In other words, the light bars are all based on one subset of the sample: those who answered both types of questions. The remaining, roughly one third, of the samples did not give useful percentile estimates, so for them we only have their estimates of what it takes to be rich; these are shown with dark bars.

As can be seen in the Figure, there are large differences in perception between those who did and did not answer the percentile questions. In all three countries, people who did not answer the percentile questions in an informative way think that the threshold for "rich" is lower, compared to people who did answer the percentile question in an informative way. This clearly suggests that the non-response is non-random. Because non-respondents see lower thresholds for rich, this raises the possibility that they themselves may be lower income; they may also hold different political views.

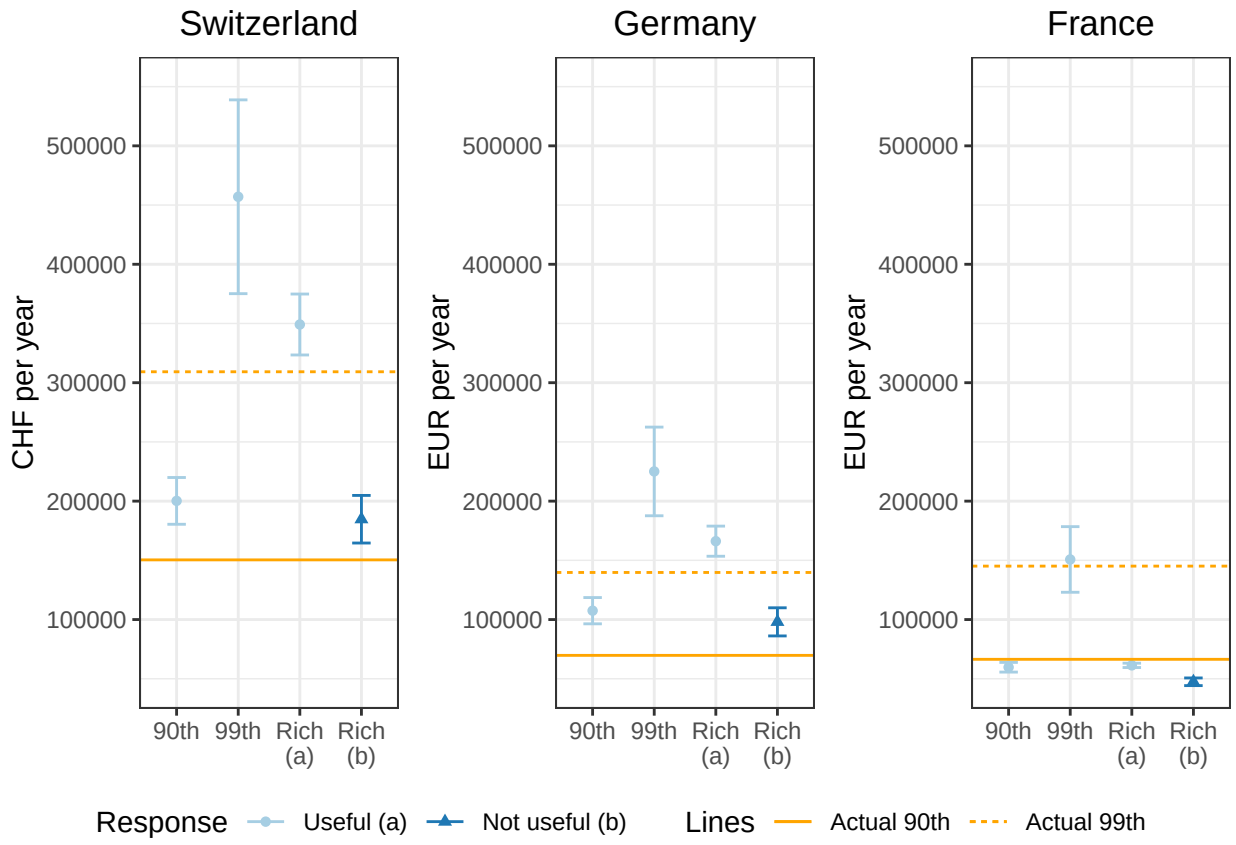

Figure 4: Mean estimates of incomes at different thresholds, by percentile response usefulness

We also briefly explore the same issue of useful and/or non-response for the poverty items. Figure

5 shows mean estimates of the tenth percentile and "poor" thresholds, separated by whether respondents answered the tenth percentile question. Note that here the only distinction we are drawing is between response and non-response to the 10th percentile question, as we did not observe any unreasonably high estimates (i.e. in the top decile of the actual income distribution) in any country. In general, the response rates for the 10th percentile item are also higher than for the 90th / 99th percentile items. Here, the differences in perception between responders and non-responders are less pronounced. In Germany, the difference in perceptions of the poverty threshold do not differ between responders and non-responders to the percentile item. In France and especially Switzerland, we again observe some differences, with the non-responders perceiving a lower poverty threshold than responders.

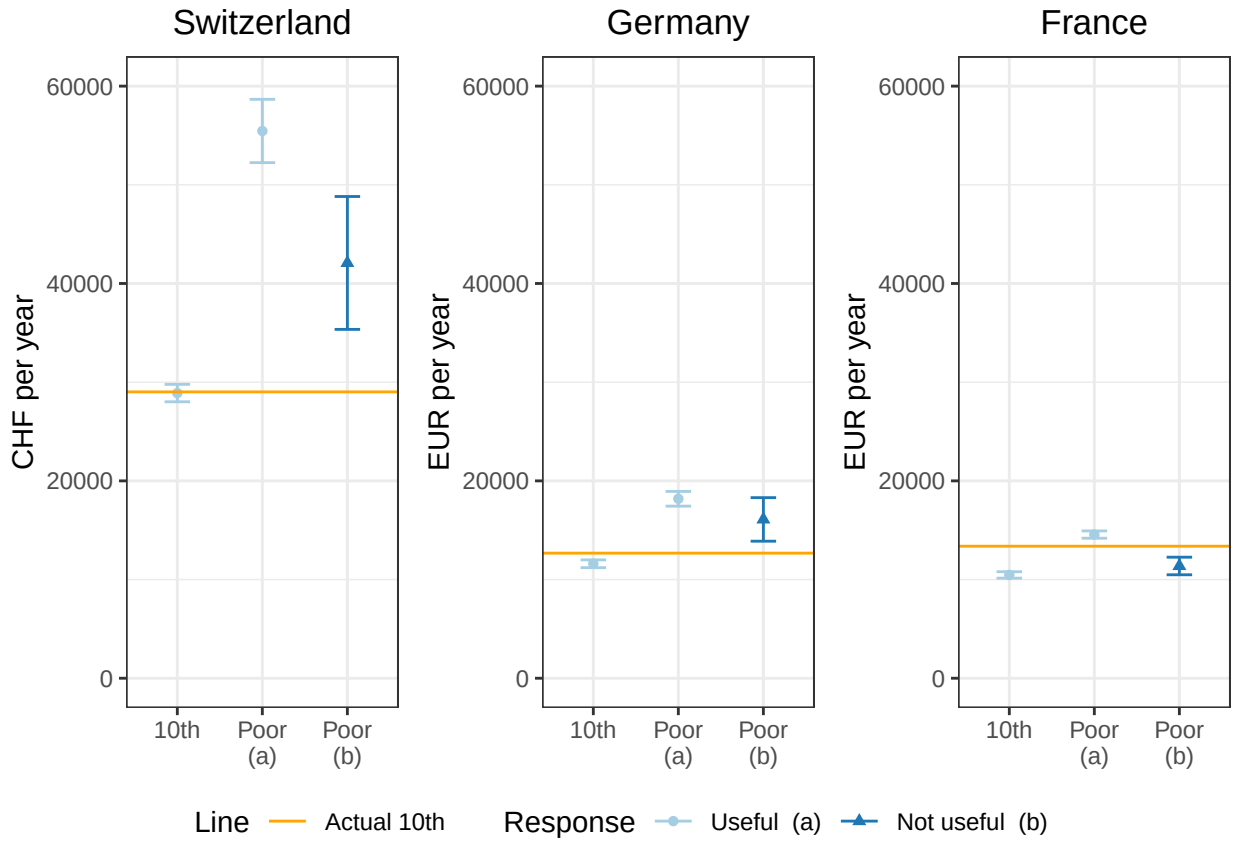

Figure 5: Mean estimates of low incomes at different thresholds, by percentile response usefulness

These results raise the possibility that there are demographic differences in who is able and/or willing to respond to the mathematically more challenging items; in Table 4 we illustrate some of these differences. In each of the three countries, the people who answer items about the "rich", but who do not give useful answers to items regarding percentile-based incomes, tend to have lower incomes and lower levels of education, and be more politically right-wing than those who answer both types of items. We do not find significant differences

Table 4: Demographic characteristics by response quality

	Switzerland		Germany		France	
Useful % response	No	Yes	No	Yes	No	Yes
Share college	0.24	0.37	0.38	0.50	0.21	0.34
Mean income	79371	101332	31930	35684	26879	33219
Share female	0.56	0.55	0.54	0.51	0.53	0.54
Conservative (0-10)	5.3	4.9	5.0	4.6	5.5	5.2

by gender. These raw differences persist when entered into a multivariate regression: in all countries, education, income, and political affiliation independently and significantly predict whether someone gives useful responses to the top-end income percentile items.

It is unsurprising that education predicts non-response, as the percentile items are mathematically more demanding. It is likely that household income to some extent taps into a similar phenomenon, with higher status individuals being more likely to respond to the more complex items. However, it is somewhat surprising that political conservatism also, independently, predicts non-response. One possibility here is that the percentile questions may have appeared "liberal" to the conservative respondents, who then declined to answer them, though we cannot test this hypothesis with the available data. What we do know is that the joint picture that emerges here is that high-status, left-leaning individuals are over-represented among those who respond to percentile items. This may have important consequences for the conclusions we draw regarding how people perceive and make sense of inequality, as well as how they connect these perceptions to demand for redistribution.

Conclusion

In this paper we have addressed a common challenge in the field: how to measure perceptions of economic inequality in a way that is intuitive for respondents, but also useful for researchers. Concerned that factual questions that reference specific percentiles of the income distribution may be too complicated for many respondents, we explored how these items perform when compared side-by-side with an alternative phrasing which merely mentions the rich and the poor, without referencing distributions or percentiles.

We anticipated that the percentile questions may largely be responded to by satisficing, especially by drawing on the social concept of "the rich", and that as a result, there would not be large differences between the responses to the incomes of the 90th percentile, the 99h percentile, and "the rich". Essentially, we expected that there may in fact be one dominant concept of the rich, which people draw upon regardless of the specific wording or percentile mentioned. We found this not to be the case: different descriptions of the

rich and the poor evoke different perceptions of the targets' income levels. There are substantial differences between the perceived incomes of the 90th and the 99th percentile, with the more ambiguous category of "the rich" falling in between.

We also anticipated that percentile items would be harder to answer, and therefore result in higher rates of non-response and/or non-informative responses. This expectation was corroborated: questions about the rich and poor have much higher response rates, and rates of "useful" responses, compared to percentile items. Further, we show that the missingness is not random: respondents who answer both questions tend to see higher income thresholds both for the rich and for the poor, compared to respondents who only answer the items about the rich / the poor. Additionally, we show that in all three countries, demographic characteristics predict responding in informative ways to the percentile items: respondents with high income, high education, and left-leaning political attitudes are more likely to respond.

These findings jointly could be interpreted as a Converse-style finding regarding different political conversations occurring among the politically sophisticated vs. the rest of the population. The relatively more politically sophisticated segments of our respondents not only answer the percentile items, they also have distinct perceptions of the 90th and the 99th percentiles. This group's perceptions track with political discussions that, for example, propose taxing the top 1% of income earners. However, we also find a group of less sophisticated respondents who de facto opt out of the conversation when asked the more mathematically challenging questions. These respondents are not only different in terms of education and income, they are also more conservative than the always-responders. As a result of non-response, they are left out of the conversation (or, in the case of survey research, the calculations), which may distort the picture we have of citizens' perceptions of - and attitudes toward - inequality.

In sum, in our view the literature on perceptions of inequality - and more broadly, the measurement of complex concepts - would profit from more attention to exploring the qualities of survey questions and their consequences. This should be done with a special eye on systematic non-response, as our findings suggest that cognitively demanding question will disadvantage certain segments of the population specifically. Not recognizing these systematic trends will result in biased assessments of overall trends.

Our findings could also be interesting for debates about unequal representation, as they indicate that the type of question researchers choose to ask systematically impacts who answers it, with the less affluent being less likely to provide answers to complex survey questions. To the degree that policy position questions are seen as cognitively demanding, this could seriously impact our measurement of the policy preferences of the poor and the rich.

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