Reply to Comments on the Manuscript 'Ethnic Stereotypes and Preferences on Poverty Assistance'

November 13, 2014

We are really grateful for the thorough and thoughtful comments! We have learnt a lot, and not only will try our best to improve the presentation of our current research but also plan to develop our model further in light of the critiques and recommendations. Since there are significant overlappings among the comments sent by the four reviewers, we organize our letter along the issues raised in one or more of the comments. Before turning to the reviews, however, we make some general remarks.

The point of departure of our analysis is a hypothesis, according which perceived ethnicities of welfare recipients influence voters' welfare preferences; and this influence could be important in explaining cross-country differences in welfare design. This question has attracted considerable attention among economists, sociologists and political scientists in the past decade. A recent survey overviews about one hundred empirical articles dealing with this particular issue as their main focus in the past fifteen years (Stichnoth and Van der Straeten 2013). A quick search on Google Scholar shows that among the papers which cite Alesina and Glaser's (2004) seminal work on the issue, more than three hundred mention together the concepts of ethnicity, welfare state and solidarity.

However, after hundreds of papers published, there has still been no concluding evidence (Stichnoth and Van der Straeten 2013). Many empirical investigations found that preferences or policies are sensitive to the recipients' ethnicity but many other studies did not.

Therefore, we think that some further theoretical analysis of the psychological bases of ethnicization is still warranted. Our simple model is a thought experiment aiming to explore a mechanism which a) is based on plausible behavioral assumptions, b) implies a varying role of recipients' ethnicities in forming welfare preferences, and c) relies on a variable whith real social policy relevance.

Our ambitions with this model are relatively modest. We do not deal with general redistributive preferences (reviewers accepted this). What is more, we do not aim for a comprehensive model of preferences on poverty assistance either (some reviewers criticize this, and they may be right).

First, we focus on a specific type of social preferences which, according to scholars of public opinion, plays a key role in forming attitudes towards welfare benefits. This type of preferences was adopted by some earlier models of redistributive preferences (e.g. Alesina and Angeletos 2005), but it was not used to model ethnicization of welfare preferences.

Second, we focus on a specific source of information for the benevolent citizens' moral judgments: the socioeconomic status of a potential recipient. Some social policy scholars have already emphasized that the socioeconomic status of the typical recipient may have an influence on public sympathy towards the poor (e.g. Albrekt Larsen 2006). Moreover, there is a conjecture in psychological theory that status is a crucial variable for inferences on personality traits (e.g. Fiske et al. 2002, Cuddy et al. 2008). Nevertheless, we do not have much evidence on the role of the recipient's status in shaping judgments on deservingness in contemporary societies. Thus, our thought experiment only shows what would happen if the recipient's status played a significant role in forming the voter's moral judgments.

(Note that Referee reports 3 and 4 are identical to the first and second Reader Comments, respectively. We refer only to the original documents below.)

On the assumptions about the benevolent citizen's social preferences

- Reader's comment 1 (C1): "... the model prediction ... lays on the hypotheses made by the authors and is therefore tautological so that its analytical treatment finds its formal confirmation. ... Different hypotheses, for example a widespread feeling of human brotherhood independent of the socioeconomic status and the ethnic stereotypes, while tied to the material needs, would lead to different conclusions vis à vis a meritocratic anthropology which tends to maintain the existing distributive conditions."
- Review 1 (R1): "In my opinion some justification for equation (2) is needed." $(D_{ij} = 0 \text{ for } w_j \ge h \text{ or } e_j = 0$, and $D_{ij} = w_j h \text{ for } w_j < h \text{ and } e_j = h$)

Several scholars of public opinion emphasize the key role of 'deservingness'based conditional preferences in shaping popular attitudes towards poverty assistance (e.g. Gilens, 1999; Lepianka et al., 2009). A recent wave of economic research also argues in favor of the empirical validity of those type of models of welfare preferences (e.g.Konow, 2010; Fong and Luttmer, 2011). Moreover, some more comprehensive models on redistributive preferences adopt similar assumptions (e.g. Alesina and Angeletos, 2005). Note that the above arguments and models are in line with the conclusions of a large body of literature on social preferences. Nevertheless, we do not argue against the possibility that other moral motivations may also be at work when citizens form their opinions on just benefits. For instance, a preference for securing food and shelter to survive for all in need could surely constrain the phenomenon which we call 'the poverty-assistance paradox'. In this particular paper, however, we intend to concentrate on one particular mechanism and its consequences.

However, we agree with Reviewer 1 that more explanation is warranted about the exact formulation of D_{ij} in a revised paper.

On the assumptions about the citizen's theory of the sources of individual economic success

• R2: "i) The distribution of fortune is different for lazy and diligent persons, so that a diligent person may end up worse than a lazy person who exerts zero effort. This modelling choice is crucial for the results, however, this assumption is not very intuitive. If 'effort' is considered to represent only the work effort, it is not very intuitive why a diligent person would end up with worse living standards than a lazy person exerting zero effort but who happens to be lucky. However, if 'effort' to increase one's living standards includes also some risky financial investments, then the assumption about the distribution for fortune would make more sense. However, since this a model of poverty assistance, I would consider 'effort' as individual's willingness to work hard. In this case I would reconsider how effort-conditional luck is determined."

One could argue that trying hard to earn money brings some risks of ending up worse than the 'lazy ones' who stay at home or accept comfortable jobs only. Health risks or unanticipated pecuniary and non-pecuniary consequences of long commuting, for instance, disproportionately affect those for whom the shadow price (moral costs) of being jobless is particularly high. Nonetheless, it was not our intention to emphasize such possibilities. Rather, it is a consequence of our efforts to keep the model simple but flexible. The comment points to an important shortcoming of the way we presented the model. We made a mistake when we did not go into the details about what we considered as 'realistic' parameter values – in this case, the values of r and h. We see our model realistic if r is low enough and h is high enough to make such negative consequences of work efforts exceptional.

On the assumption that only socioeconomic status provides information on efforts

• R2: "Since the prior belief of the person's deservingness is the key in determining whether an individual deserves poverty assistance or not, at the current model, no matter how hard the individual works, faced with bad luck, and with other citizens viewing him lazy due to his ethnicity, there is no way for the hard-working but unfortunate citizen to gain access to poverty assistance. To make the model more realistic, I would suggest adding some way for the potential recipient to signal his high effort that would increase the tax payer's information whether he deserves assistance or not. (For instance people have to register as unemployed and report on their efforts to have a job to be eligible to receive unemployment benefits.)"

We consider the abovementioned measures as institutional reactions to uncertainties embedded in the situation we try to model. Our present focus is on the independent effect of socioeconomic status on judgements about deservingness. This effect has been neglegted in the literature, but we see it as a potentially important mechanism which deserves special attention.

On the realistic parameter values and lack of simulation results

• C2: Pr2: it is hard to evaluate the generality of the finding as the paper currently stands. The authors refer to simulations for "realistic parameter values", but it is very hard to assess the statements made without further details, especially since it is quite unclear how to determine what model parameter are "realistic". There is also no discussion about how sensitive the second result is to the assumptions made. // Finally, the paper lacks a discussion about how reasonable the model assumptions are and how the results depend on these assumptions."

• R1: "On page 9 Authors mention performed simulations but no details or results are attached."

The aim of our numerical simulations were to investigate the ethnicization of preferences on public assistance to two types of potential welfare recipient. Those living around the poverty line (as it tends to be defined in modern welfare states) on the one hand, and those who are among the poorest few percent, on the other. This comparison could have a relevance for the discussion among social policy researchers about preferences on poverty assistance. We consider parameter values more or less realistic if a large part of the least fortunate 10-15 percent of the 'diligent' population have a status comparable to the average 'lazy' person. As far as the stereotypes are concerned, we first looked at situations in which a vaste majority (e.g. 90 percent) of the in-group recipients are believed to be diligent, and the citizens are uncertain about those belonging to the stigmatized minority (e.g. they believe that about 50 percent of those out-group recipients are diligent).

We carried out the preliminary numerical calculations in an Ms-Excel file. This is not an appropriate format for a supplementary material of a publication. Moreover, this rudimentary format makes a systematic investigation of parameter values hard. Surely, it was a mistake to submit the paper before completing a publication-ready presentation of our calculations. This is still to be done. Until a user-friendly version is completed, interested readers may look at this file below, and could request explanations if needed: https://drive.google.com/file/d/OB-qpUqA0fZ1pbEFUNVlmcFdUQTA/view?usp=sharing (For downloading, not to open online).

On the lack of an empirical test

• R1: "I believe it should be supported by some empirical data."

Janky et al. (2014) present an empirical analysis which was motivated by the mechanisms discussed in this paper. However, it is not a direct test of our model. Actually, it is not easy to implement an appropriate test of our model. We intend to design such a test with the help of vignette-method in the future. The present paper, however, is a theoretical one.

On the expansion of the model by a voting equilibrium

• C2: "Although I find the paper intriguing, there is a lot of issues that are not explored in the paper. For example, it would be interesting to study a voting equilibrium as well as how the poor responds to redistributive spending. Will the poor work harder when social spending is lower and how does the behavior of the poor map into beliefs about deservingness? (Perhaps the authors are correct in their implicit assumption that stereotypes live a life of their own completely independent of how hard-working the poor actually are.)" • R2: "The preferences of tax payer i, and her beliefs of the fellow citizen j' deservingness determine whether j is eligible for poverty assistance, and by how much. This decisive tax payer is not modelled very carefully. Is he some type of the median voter?"

We have not developed a voting model by this stage of our research. The present paper aims to contribute to the research on public policy preferences, without a direct link to studies about political outcomes. We may expand our analysis by a voting equilibrium later.

On the differences between Janky-Varga and Horvath-Janky

• R2: "the contribution of the present paper is not completely clear. Especially with regards to Janky and Varga (2013), it seems that the current paper is an extension to it, however it is not clear what is the contribution to/departure of the present paper from Janky and Varga."

A couple of key features of the model presented in Janky and Varga (2013) differs from our current one. First, they assume that socioeconomic status is a multiplicative function of effort and luck. That is, in their model, w = ef, instead of w = e + f. Second, Janky and Varga (2013) incorporate effort as a continuous variable. Their model uses less parameters and more realistic assumptions on the distribution of socioeconomic status than our one. On the other hand, it could not model stereotype simply as a perceived likelhood of high effort. Moreover, it is not as flexible as our model in describing the interplay of effort and luck in producing economic outcomes. Namely, unlike in Janky and Varga (2013), the expected value and risks of making efforts can be manipulated independently of one another in our current model (with varying h and r, respectively). To put it in another way, one can manipulate the likelyhoods of a lazy person becoming affluent and a diligent one becoming poor independently of one another in our model. The formulation in Janky and Varga (2013) does not allow for this (the multiplicative function creates an interdependence). Nonetheless, more sophisticated explications of the two basic models may could lead to a convergence of attributes.

On the role of ethnic stereotypes

- R1: "Furthermore the paper gives no clue why it discusses ethnic stereotypes. The line of reasoning would as well fit for example religion or obesity stereotypes."
- R2: "The authors make references to concepts such as 'heterogeneity kills solidarity' and 'ethnic preferences model'. The readers of the paper are not necessarily familiar with these concepts or the literature on which these are based."

There is a large body of literature on the relationship between ethnic heterogeneity and welfare attitudes/spending (see e.g. Stichnoth and Van der Straeten 2013 for a recent review). Our research is motivated by and relies on this literature. A new version of the paper should make clearer the major milestones and remaining puzzles in this line of resarch to readers who are less familiar with the issue.

On the clarity of the presentation of the model

• C2: "The presentation of the model could also be simplified quite a lot. The optimization problem is not clearly stated and the authors introduce some unnecessary notation (like the g and D functions). The model setup is quite simple and could be explained much more clearly."

We aimed at a didactic presentation. Without doubt, this came at some costs. Superfluous notations are such costs. Previous readers and the other reviewers found the model formulation clear so we would prefer to stick to the present explication of the model.

On the clarity of the argument

- R1: "1. It might be helpful to state more explicitly what is the aim of the paper. 2. Paragraph 2 is in my opinion unclear. It could be described what are main objections towards given thesis. It would be helpful for the readers less familiar with the topic to be provided with information on 'strong critique' and 'mixed results'. 3. More explanation on what is r would be helpful. On page 6 it seems to describe a parameter in data generating process, while on page 7 it seems to beparameter of taxpayers' beliefs. 4. More elaboration on Proposition 2 would be helpful. "
- R2: "The authors should pay more attention to improve the readability of sections 1. and 2. to enable the reader to follow their research question, the main arguments they wish to make and the connection to the previous literature."
- C2: "The intuition for the results could also be better explained."

The comments rightly emphasize that we should improve the presentation of our argument. To show the first results of our efforts, Appendix 1 of this letter contains a revised version of the introduction, while Appendix 2 includes a revised version of the end of Section 2.

Appendix 1: A revised version of the introduction

Fighting poverty is an enduring task even in affluent postindustrial societies. What is more, the image of the poor is often ethnicized which makes the designing of public poverty assistance programs not only an economic policy question, but a politically sensitive challenge as well. In their seminal study, Alesina and Glaser (2004) concluded that ethnic heterogeneity among the poor would undermine the public support for poverty assistance. They traced a part of cross-country differences in the generosity of welfare programs back to this premise. The 'heterogeneity kills solidarity' thesis has attracted considerable attention in the past decade; nonetheless, the evidence is mixed (see e.g. Stichnoth and Van der Straeten 2013 for a recent review).

The ethnicization of welfare attitudes can easily be explained with models of 'ethnic preferences' (e.g. Luttmer 2001). However, some scholars of public opinion argue that voters tend to support beneficiaries of any color whom they see as 'deserving' (hard working, in particular). What may lead to discrimination between recipients of different colors, are voters' stereotypes about ethnic differences in work ethic (e.g. Gilens, 1999). In this paper, we develop a model of preferences on poverty assistance which relies on the latter assumptions: people support assistance for the deserving poor but ethnic stereotypes influence their judgments of deservingess. Our model implies that the strength of ethnicization of preferences may depend on the socioeconomic status of the potential recipients. This result could be interesting because in the social policy literature, a major suspect for the failure to show a straightforward connection between ethnic heterogeneity and public support for poverty assistance is the large variance in the institutional delineation of potential recipients of poverty assistance programs (whether they include moderately poor persons as well or only exclusively the most distressed ones; see e.g. Taylor-Gooby, 2006, Albrekt Larsen, 2006)

In the next section...

Appendix 2: A revised version of the last paragraph of Section 2

In a companion paper, Janky and Varga (2013) introduce a model which is relatively similar to the subsequent one, and clearly shows the connection between the recipient's socioeconomic status and the level of public assistance a benevolent citizen may prefer to be allocated to her/him. A key assumption in both of the models is that the observed socioeconomic status is a noisy signal about the recipient's unbserved efforts which can be used to judge her/his personality. Earlier models of redistributive preferences did not use this assumption.

The model of Janky and Varga (2013) captures the role of recipient's status in moral judgments in a simpler and more elegant, albeit less flexible way than our model does. We revise that model in our analysis in order to have a closer look at the 'heterogeneity kills solidarity' thesis. Unlike the framework presented by Janky and Varga (2013), our model can easily incorporate the concept of stereotype as the perceived prior likelihood of facing a deserving person. More details follow in the next section.

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