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Does Positional Concern Matter in Poor Societies? Evidence from a Survey Experiment in Rural Ethiopia

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Summary. — We investigate attitudes toward positionality among rural farmers in Northern Ethiopia using a survey experiment. On average, we find very low positional concerns both for income *per se* and for income from aid projects. The results support the claim that positional concerns are positively correlated with absolute level of income. The implications of our results on implementation of aid projects are discussed.

Key words — Africa, Ethiopia, positional concern, relative income, survey experiment

1. INTRODUCTION

Positional (or status) concern is a frequently discussed and well-documented phenomenon in developed countries (e.g., Clark, Frijters, & Shields, 2008; Johansson-Stenman, Carlsson, & Daruvala, 2002; Solnick & Hemenway, 1998). Veblen (1899/2005, p. 36) introduced this issue as a broad phenomenon across society by writing "no class of society, not even the most abjectly poor, forgoes all customary conspicuous consumption." A result of positional concerns is that the utility derived from a good depends not only on the absolute amount of the good consumed, but also on the amount of the good consumed relative to the amount consumed by others. Positional concerns have been empirically investigated very recently using data on self-reported happiness (or "subjective well-being" or "life satisfaction") from surveys and also from survey experiments. [1] In the happiness framework, the average income of others (often denoted "comparison income" or "relative income") is used as an indicator to measure positional concerns. The impact of relative income on happiness is then studied, while controlling for the subject's own absolute income. The general conclusion from this line of research is that happiness is significantly and negatively affected by the income of others in developed countries (e.g., Clark & Oswald, 1996; Clark *et al.,* 2008; Ferrer-i-Carbonell, 2005; Luttmer, 2005; McBride, 2001), whereas more mixed results are found in developing countries (e.g., Kingdon & Knight, 2007, in South Africa; Akay & Martinsson, 2011, in Ethiopia; Kingdon, Song, & Gunatilaka, 2009, in China; Bookwalter & Dalenberg, 2009, in South Africa; Knight & Gunatilaka, 2010, in China). Tailored survey experiments constructed to explicitly identify the degree to which individuals care about absolute and relative income or consumption have also shown that people do have positional concerns both for income and for consumption of specific goods, such as cars and holidays (see, e.g., Frank, 1999; Hirsch, 1976, for a general discussion and for example, Alpizar, Carlsson, & Johansson-Stenman, 2005; Carlsson, Johansson-Stenman, & Martinsson, 2007; Johansson-Stenman *et al.*, 2002; Solnick & Hemenway, 1998, 2005, 2007, for experimental findings). [2, 3] Note that these two approaches are based on different utility considerations. For example Kahneman, Wakker, and Sarin (1997) and Kahneman (2000) discuss the importance of distinguishing between experienced utility and decision utility, where the happiness is an ex-post experienced utility and the decision is an ex-ante utility. These two measures of utility will for sure show the same utility when the individual is rational and fully informed. However, it is likely that these two requirements are not completely fulfilled, but still the research using happiness data and survey experimental data show same tendencies regarding concerns for positionality.

There is growing evidence that the impact of relative concerns might be heterogeneous across countries with different national incomes. Particularly, it is a widely held view that the positional concerns of very poor people are lower than those of rich people. Frey and Stutzer (2002) argue that, when absolute income is above some subsistence level, other factors such as relative income start to influence well-being. In a recent paper, Clark *et al.* (2008) discuss this issue more generally and argue that positional concerns increase as one moves from poorer to richer countries. In another cross-country study, which covered eight countries, Corazzini, Esposito, and Majorano (2009) found that the importance of relative concerns in the perception of poverty increases as one goes from developed to developing countries. Hence, positional concerns

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may also influence people in very poor countries. Yet, we know very little about positional considerations among very poor individuals since research on the issue, using either happiness or experimental data, is generally based on data from Western countries, which are rich in absolute terms. Using happiness data from a large household survey in extremely poor villages in the highlands of rural Ethiopia, Akay and Martinsson (2011) show that people do not seem to be concerned with their relative income position. Kingdon *et al.* (2009) find, for relatively poor rural Chinese households, that the income of other rural households is positively correlated with their happiness. Bookwalter and Dalenberg (2009) find a similar positive effect on happiness for expenditures in South Africa. Caporale, Georgellis, Tsitsianis, and Yin (2009) find that relative income has a negative impact on happiness in Western European countries, while the opposite is found for Eastern European countries, which have lower absolute income levels. The positive relative income effect found in communal societies such as rural China and transition countries such as Eastern Europe can be explained by for example "altruism," Hirschman and Rothschild's (1973) type "tunnel effect," or "demonstration effect" hypotheses (Ravallion & Lokshin, 2000; Senik, 2004; Kingdon *et al.,* 2009; Hirschman & Rothschild, 1973). In villages with kin relationships or high degree of social capital, we may observe higher intra-group solidarity, and hence altruism, among the members of the village. On the other hand, as Hirschman and Rothschild argue, if a person observes an increase in the income level of people in his/her reference group, then he/she may perceive good prospects for a future increase in his/her own income, which may result in positive positional concerns.

The objective of the present paper is to test whether positional concerns matter among extremely poor people in Northern Ethiopia. We use a survey experiment to overcome some of the potential difficulties and biases when using happiness data especially related to accurate measurement of income and determination of reference group. Any study aiming to analyze the positional concerns based on a happiness framework should of course use an accurate measure of income and this is difficult to obtain in farming societies in developing countries. In developed Western countries, income is typically easy to measure since most people have a salary. They might also be eligible for various allowances, which are usually well-documented. However, in farmer societies, a substantial part of people's income comes from own farming activities in addition to seasonal work. The problem is, first, recalling amount harvested and, second, converting the outcome from farming activities to an income measure. Moreover, it is difficult to report income per time unit due to seasonality in income related to when harvest occurs. Another important issue when analyzing positional concerns is to determine the actual "reference groups" of the individuals, as discussed in Clark and Senik (2010). In most data sets, no information on individuals' reference groups has been collected. To reduce the potential bias from ad-hoc created reference groups, the researcher should test the robustness of the findings by creating many different reference groups (Kingdon *et al.,* 2009; Clark & Senik, 2010; Senik, 2009).

We use two survey experiments that focus on positional concerns in two different dimensions: (i) yearly income from all sources and (ii) income from an aid package. In both cases we use a similar design as in, for example, Alpizar *et al.* (2005). The experiments were conducted in Northern Ethiopia,[4] which is one of the poorest regions in the world. We surveyed farmers in the village of *Abraha We Atsbaha*[5] in the Tigray Regional State. In this region, most people depend on rain-fed subsistence agriculture. Thus, using the first experiment, we test for positional concerns for overall income and, more specifically, for the claim in Clark *et al.* (2008) that positional concerns for income are lower among the very poor—which to our knowledge is an empirical question that is untested via survey experiments. Moreover, the region is known for its recurrent droughts, and it was also the location of the 1984 Ethiopian famine, which killed more than 1 million people. As a result, the area has received substantial humanitarian aid (e.g., Dercon, 2004; Jayne, Strauss, & Yamano, 2002; Jayne, Strauss, Yamano, & Molla, 2001) and aid-based development activities such as food-for-work programs (e.g., Holden, Barrett, & Hagos, 2006), in addition to farm and health extension services, productive safety net programs, and cheap credit packages. The second experiment tests whether there are positional concerns for income from an aid package. Thus, this paper also contributes to the methodological discussion on the positional concerns of the poor and investigates particularly whether positionality is an issue to be considered for aid-based development projects in these regions of the world. This is a potentially important issue for the well-being of those who receive a smaller aid package or are not selected to receive any aid package at all. Aid packages are often unevenly distributed among households in a village, especially when related to new agricultural technology or other investments, resulting in income differences among households.[6] If there is substantial concern for positionality among people, then it is possible that the overall welfare[7] effect of an aid package is negative. Theoretically, such welfare loss can be corrected by incorporating appropriate adjustments to the optimal tax rules applied (e.g., Aronsson & Johansson-Stenman, 2008). In practice, such adjustments are difficult in economies with progressive income tax, let alone in this part of Ethiopia where the only tax is an annual land tax ("*gibri meret*" in Tigrinya, which is the local language). Thus, understanding the nature and level of positionality is therefore an important input in the design of aid-financed development programs. The remaining part of the paper is organized as follows. Section 2 gives the design of the experiment and the method behind it. Section 3 presents the results. The last section discusses the implications of our results on the provision of development programs and concludes the paper.

2. EXPERIMENTAL DESIGN

The two most common ways to model relative position in a utility framework are (i) a ratio comparison utility function, $U = v(x, x/\bar{x})$, where x is the individual's income and $\bar{x}$ is the average income in the reference group (e.g., Boskin & Sheshinski, 1978; Layard, 1980; Persson, 1995) and (ii) an additive comparison utility function, $U = v(x, x - \bar{x})$ (e.g., Akerlof, 1997; Knell, 1999; Ljungqvist & Uhlig, 2000). In the present paper, we chose to apply the following additive comparison utility function:

$$v = (1 - \gamma)x + \gamma(x - \bar{x}),$$

where γ measures the marginal degree of positional concern, that is, the proportion of the total change in utility that comes from an increase in relative income after a marginal increase in own income.

In order to test the effect of positional concern in both dimensions, that is, income *per se* and income from aid package, we applied a survey experiment. We created a scenario describing the situation where individuals are about to make a decision. In the experiment on income, subjects were told that they could choose to live in one of two villages and that