Ethnic Diversity and Poverty

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Summary. — We examine the relationship between ethnic diversity and poverty for a cross-sectional sample of developing countries. We measure diversity using indices of ethnic and linguistic fractionalization, and measure poverty using the multidimensional poverty index (MPI), multidimensional poverty headcount (MPH), intensity of deprivation, poverty gap, and poverty headcount ratio. We find that ethnic and linguistic fractionalization contributes to poverty levels. Specifically, after controlling for endogeneity, we find that a standard deviation increase in ethnic fractionalization is associated with a 0.32-, 0.44- and 0.53-standard deviation increase in the MPI, MPH and the intensity of deprivation, respectively. Moreover, a standard deviation increase in ethnic fractionalization is associated with between a 0.34- and 0.63-standard deviation increase in the population living below $1.90 and $3.10, the poverty gap at $1.90 and $3.10 a day and the headcount ratio at $1.90 and $3.10 a day. Similar results are also observed for linguistic fractionalization with standardized coefficients between 0.53 and 0.93. We find that our results are robust to alternative ways to measure poverty and ethnic diversity including ethnic polarization as well as alternative approaches to address endogeneity.
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Key words — ethnic diversity, poverty, fractionalization, polarization

1. INTRODUCTION

Addressing poverty is one of the most pressing issues confronting developing countries. The importance of addressing poverty is reflected in the fact that the first objective of the Millennium Development Goals was to eradicate extreme poverty and hunger. The Millennium Development Goals' target of halving the proportion of people whose income is less than $1 a day (increased to $1.90 per day) during 1990 and 2015 was realized five years ahead of time. About 700 million fewer people lived in extreme poverty in 2010 compared with 1990. Yet, despite this impressive achievement, 1.2 billion people continue to live in extreme poverty (United Nations, 2013).

A first step to addressing poverty is improved understanding of its root causes. Given the ongoing importance of addressing poverty, many studies have focused on how, and why, economic factors affect poverty (see, e.g., Adams, 2004; Beck, Demirguc-Kunt, & Levine, 2005; Dollar & Kraay, 2004; Fan, Hazell, & Thorat, 2000; Ravallion, 1995). Sitting alongside this literature, there is a growing interest within economics in understanding the role of broader socio-cultural factors such as colonial history, disease, geographic locale, and institutional factors in contributing to income distribution and poverty (see e.g., Acemoglu & Johnson, 2005; Acemoglu, Johnson, & Robinson, 2001, 2002; Ashraf & Galor, 2013). Ethnic heterogeneity is an important socio-cultural factor that has been shown to be correlated with a range of policy variables, such as quality of government and indices of development (see e.g., Alesina, Baqir, & Easterly, 1999; Alesina, Devleeschauwer, Easterly, Kurlat, & Wacziarg, 2003; Alesina & Zhuravskaya, 2011; Easterly & Levine, 1997). Yet, despite the growing interest in the relationship between socio-cultural factors and poverty, we know virtually nothing about the relationship between ethnic heterogeneity and poverty levels.

We seek to answer the question: Does ethnic diversity contribute to higher poverty levels? To answer our research question, we examine the direct effects of fractionalization on a wide range of poverty indicators in a cross-section of developing countries. Our main measures of ethnic and linguistic diversity are drawn from Alesina and Zhuravskaya (2011), who provide indices of ethnic and linguistic fractionalization at the regional (sub-national) and national levels. The index of fractionalization captures the probability that two randomly selected individuals in a country/region belong to different ethnic/linguistic groups. Specifically, we focus on the effects of fractionalization on the multidimensional poverty index (MPI), multidimensional poverty headcount (MPH), intensity of poverty, poverty gap, and poverty headcount ratio. We find that, on average, ethnic and linguistic diversity contributes to poverty levels. Specifically, after controlling for endogeneity, we find that a standard deviation increase in ethnic fractionalization is associated with an increase of 0.32, 0.44, and 0.53 standard deviations in the MPI, MPH and the intensity of deprivation respectively. Results further show that a standard deviation increase in ethnic diversity is associated with an increase of 0.38 standard deviations in the population living below $1.90 a day. Similarly, a standard deviation increase in ethnic diversity is associated with an increase of 0.62 and 0.63 standard deviations in the poverty headcount ratio for the population living on less than $1.90 and $3.10 a day, respectively. Results also show that a standard deviation increase in ethnic fractionalization is associated with a 0.60 standard deviation increase in the poverty gap at $1.90 and $3.10 a day. We obtain similar results for linguistic fractionalization. Our findings prove robust: (1) if we use the 2010 United Nation Development Programme (UNDP) poverty indices instead of the revised measures used in the main results, (2) if we use ethnic polarization instead of ethnic fractionalization to measure ethnic diversity, (3) if we substitute the Alesina *et al.* (2003) fractionalization indices for those proposed by Alesina and Zhuravskaya (2011), and (4) when we employ alternative ways to tackle endogeneity.

We contribute to the literature by providing the first study to examine the relationship between fractionalization and poverty levels across several countries. Specifically, we document the effect of ethnic diversity on a wide range of poverty indicators. Understanding this relationship is important, as it adds to the literature that seeks to understand the causes of poverty and how to address it. The findings are important because they suggest that in addition to economic factors such as economic growth and institutional quality, among others, socio-political factors such as ethnic diversity have an important role in explaining differences in poverty levels across countries.

This finding has important policy implications. In an attempt to alleviate poverty, the World Bank and the International Monetary Fund have encouraged countries to implement economic policy reforms such as privatization as well as price and trade liberalization, among others. The findings from this study suggest that, alongside these economic factors, attention should be given to ethnic diversity, which has not been a primary consideration in policies to reduce poverty. As Miguel (2006, p. 169) puts it: "The bottom line is that good economic policies alone may be insufficient to reduce poverty in countries with deep social divisions". In addition to the usual prescription of good economic policies, "nation building" policies that foster the development of a common national identity might be needed to reduce the effect of fractionalization on poverty (Miguel, 2006).

The remainder of the paper is organized as follows. The next section discusses the conceptual relationship between ethnic diversity and poverty. Section 3 reviews the related literature. Sections 4 and 5 discuss the data and empirical methods. Section 6 presents, and discusses, the results. Section 6 examines the robustness of our results while Section 7 concludes.

2. THE CONCEPTUAL RELATIONSHIP BETWEEN ETHNIC DIVERSITY AND POVERTY

Conceptually, ethnic diversity could be positively or negatively related with poverty levels. There are several potential explanations consistent with a positive relationship between ethnic diversity and poverty. For instance, ethnic and linguistic fragmentation may result in labor market discrimination and occupational segregation, which contributes directly to loss of income and, hence, higher levels of poverty (Gradín, del Río, & Cantó, 2010; Sawhill, 1976).

Ethnic fragmentation is associated with slower economic growth and poorer public policy performance, including poor schooling outcomes, slower financial development, less physical infrastructure investment, and greater foreign exchange rate distortion (Easterly & Levine, 1997), all of which can be expected to contribute to poverty or impede attempts to combat poverty. Similarly, ethnic diversity is associated with poorer governance and institutional quality (Alesina & Zhuravskaya, 2011). With poorer institutions, the prevalence of poverty is higher (Chong & Calderón, 2000; Perera & Lee, 2013). Existing research also shows that ethnic diversity negatively influences the provision of public goods (see, e.g., Alesina et al., 1999; Miguel & Gugerty, 2005). The mechanism is that different ethnic groups often cannot agree on the appropriate types of public goods provision, resulting in less funding for public goods overall (see Miguel, 2006). Inadequate public goods could increase inequality, which, in turn, contributes to higher poverty.

A large body of literature suggests that ethnic diversity is negatively related to social capital, especially trust and social networks (Alesina & Zhuravskaya, 2011; Dincer, 2011; Leigh, 2006; Sturgis, Brunton-Smith, Read, & Allum, 2011). Social networks have significant implications for promoting collective action and poverty reduction. One possibility is that different ethnic groups do not like mixing across ethnic lines, resulting in weaker collective action, including collective action on poverty reduction (Miguel, 2006). Yet another possible explanation is that community social sanctions stimulate collective action, but such sanctions are weaker in more ethnically diverse communities, in which social interaction between different ethnic groups is less common (Miguel & Gugerty, 2005).

In order to save costs and mitigate issues of asymmetric information and adverse selection, microfinance loans are often administered through group lending schemes (Stiglitz, 1990; Stiglitz & Weiss, 1990). Karlan (2005) suggests that cultural similarity draws group members to each other. Given the socioeconomic status of the poor, formal collateral is often not practical, and thus credit allocation to the poor is premised on trust (Fafchamps, 1996). Trust is eroded in fractionalized communities. Thus, with lower levels of trust in fractionalized societies, financial exclusion occurs because potential borrowers are not able to build potential networks that facilitate borrowing. The inability of the poor to receive credit contributes to higher levels of poverty.

Similarly, trust is a major factor that promotes networking and provides various labor market opportunities (Fafchamps, 1998). Existing literature shows that with imperfect information, social networks can provide economic advantages to agents that are better connected (Fafchamps, 1998; Kranton, 1996). In this regard, when privileged information about opportunities exists, this information circulates more effectively among social networks. Given that social networks depend on trust, and trust is lower in more fractionalized societies, there are likely to be fewer labor market opportunities gleaned through word of mouth, which contributes to higher poverty.

In addition to ethnic diversity influencing poverty via the discussed channels, a direct relationship between ethnic diversity and poverty could be hypothesized as well. A large body of literature suggests that ethnic diversity remains a source of socio-economic disadvantage which could include poverty. In fact, the persistence of poverty in certain areas could be associated with the inherent hierarchical structure which emerges from ethnic diversity. Awaworyi Churchill, Okai, and Posso (2016) argue that ethnic diversity is associated with an inherent hierarchical structure which projects one ethnic group as superior (ethnic majorities) over the other (ethnic minorities). This categorization of ethnic groups associated with diversity has been linked directly with the persistence of poverty. For instance, in most communities in Asia and Africa, issues of poverty continually increase among ethnic minorities due to cumulative disadvantages over the course of their lives, reflecting lack of opportunities and discrimination faced by these individuals (Epprecht, Müller, & Minot, 2011; Gustafsson & Sai, 2009).

However, ethnic diversity need not always lead to poorer economic outcomes. New evidence from Depetris-Chauvin and Özak (2016) suggest that ethnic diversity has a positive effect on economic specialization and trade through promoting the division of labor. Similarly, Montalvo and Reynal-Querol (2016) argue that at the local level ethnic diversity is positively associated with economic growth. They argue that a possible mechanism to explain the positive relationship between ethnic diversity and growth is the increased trade in the boundaries across ethnic groups due to specialization. As trade is a major factor affecting the livelihoods of poor people, it could be