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CENTER DISCUSSION PAPER NO. 977

**Diversity of Communities and Economic Development:
An Overview**

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September 2009

Notes: Center Discussion Papers are preliminary materials circulated to stimulate discussions and critical comments.

Paper presented at the July, '09 Kobe Conference on Ethnic Diversity and Economic Instability in Africa: Policies for Harmonious Development.” The author would like to thank Yanjing Huang for her very helpful research assistance.

This paper can be downloaded without charge from the Social Science Research Network electronic library at: <http://ssrn.com/abstract=1475329>

An index to papers in the Economic Growth Center Discussion Paper Series is located at: <http://www.econ.yale.edu/~egcenter/publications.html>

Diversity of Communities and Economic Development: An Overview

Gustav Ranis

Abstract

This paper reviews the literature on the impact of ethnic diversity on economic development. Ethnically polarized societies are less likely to agree on the provision of public goods and more likely to engage in rent seeking activities providing lower levels of social capital. Initial conditions are important determinants of adverse development outcomes. The role of decentralization, democracy and markets as potential remedies are discussed. The paper then presents a number of preliminary hypotheses on the relationship between diversity and instability in order to stimulate future research.

Keywords: Africa, Diversity, Economic Growth, Instability

JEL Codes: O11, O40, O43, O55

I. Introduction

There seems to be a general consensus, based on both cross-country regressions and individual country studies, that ethnic diversity, especially in the Sub-Saharan African context, is one of the causal factors behind relatively poor development performance. While most of the relevant literature focuses on diversity's impact on economic growth, there also is evidence that it adversely affects income distribution, poverty as well as human development.

It is generally accepted that more than two thousand ethnic groups, generally lacking exit, find themselves in Sub-Saharan Africa, a fact which can be taken as exogenous, although some have expressed the view that landlocked conditions may have contributed to such marked ethnic diversity. There is also agreement that it would be a mistake to talk about "the" African economy without distinguishing at least between natural resource rich cases, coastal cash crop exporters, and land-locked, internally oriented, economies. But much less is known about the impact of such diversity on economic stability or instability in Africa, which is the main focus of this project.

We intend to proceed as follows: In section II we summarize some of what seems to be known in the literature with respect to the impact of diversity, however defined, on development. In section III we present some preliminary hypotheses about diversity and economic volatility. Finally, in section IV, we will briefly summarize and indicate what the research priorities seem to be, based on our admittedly imperfect overview of the literature.

II. Diversity and Development

Following Barro's lead,¹ some people have detected no unique African explanation for Africa's poor performance but blame it all on poor policies, the usual violations of the Washington Consensus, including the lack of openness, low savings rates, flawed monetary and fiscal policies, as well as lack of access to the sea, a tropical climate, Dutch disease, corruption and sometimes even the kitchen sink. Sachs and Warner,² for example, follow this line of thinking. On the other hand, Paul Collier,³ as well as Collier and Gunning⁴ and Easterly and Levine⁵ point to the importance of ethnic diversity. Collier and Gunning, for example, claim that ethno-linguistic fractionalization (ELF), accounts for 35% of the growth shortfall, or 45% if closely linked poor policies are included⁶. José Garcia-Montalvo and Marta Reynal-Querol⁷ prefer polarization as the measure of diversity of greatest relevance in most cases but share the general view of the importance of diversity's impact on growth.⁸

The main argument being put forward by such authors as Easterly and Levine is that polarized societies can't agree on needed public goods and are more likely to engage in rent-seeking activities. Collier⁹ similarly points to ELF as reducing trust, increasing transactions costs and adversely affecting development generally. Bates¹⁰ does not embrace the ELF measure in the same way but agrees to emphasize that contacts and

¹ Barro, Robert J., 1991.

² Sachs, Jeffrey D & Warner, Andrew M, 1997.

³ Collier, Paul, 2007.

⁴ Collier, Paul, & Gunning, Jan-Willem, 1999.

⁵ Easterly, William & Levine, Ross, 1997.

⁶ ELF is measured by the probability that two randomly chosen individuals in a given country don't belong to the same ethnolinguistic group.

⁷ Montalvo, Jose G. & Reynal-Querol, Marta, 2005.

⁸ Polarization is measured by the degree of homogeneity within groups, the degree of heterogeneity across groups, plus, most importantly, a small number of similarly sized groups.

⁹ Collier, Paul, 1998.

¹⁰ Bates, Robert H., 2000.

contracts, implicit or explicit, within groups, can be quite strong and promote both human capital and human development within but not across groups.

Most specialists on the subject seem to hold the view that Africa's generally low population density makes it difficult to generate the kind of trust which crosses ethnic boundaries that is required for the provision of public goods. Individuals as well as entire clans tend to look at each other and worry about patent inequalities, vertical as well as horizontal, rather than about their absolute levels of welfare. It is in this sense that, in ethnically divided societies, each group has its own egalitarian impulse, but that impulse does not extend across ethnic lines, either by virtue of insurance or altruism. This is in sharp contrast to the case of some of the more densely populated countries of Asia, where land scarcity and labor abundance have led to cooperation across ethnicities, especially in the case of intensive agriculture.

It also true that strong, within-group loyalty hurts growth in another way, i.e. it does not pay for the individual member of a clan to stand out or do well or get promoted if this results in the rest of his extended family descending on him. Alesina et al.¹¹ favor the ELF, while Reynal-Querol,¹² as well as Esteban and Ray,¹³ prefer the concept of polarization, a closely balanced, therefore, contested, ethnic majority dominance.

There are findings in the literature that low levels of ELF as well as very high levels do not pose as much of a threat to development as intermediate levels. Others conclude that we should really be counting much more on polarization when two contending parties are very close in terms of their power, which may lead to bad policy

¹¹ Alesina, Alberto, Devleeschauwer, Arnaud, Easterly, William, Kurlat, Sergio & Wacziarg, Romain, 2003.

¹² Reynal-Querol, Marta, 2002.

¹³ Esteban, Joan & Ray, Debraj, 1994.

and bad development outcomes but also to less stability. The correlation between fragmentation and polarization is apparently positive and very high at low levels of ELF but zero or even negative at intermediate and high levels. But we will not spill much ink here on the question of how diversity is best measured; it clearly depends on the empirical reality and the question being asked.

While many authors have discussed the underlying causes of adverse development outcomes, lots of issues are still open for discussion, and some of these are by no means irrelevant to the basic question to be addressed in this project. Issues still open for debate include the importance of initial conditions, including colonial heritage, natural resource endowment, the role of institutions, broadly defined, as well as the relevance of the extent of democracy (or lack thereof) in affecting the relationship between diversity and growth.

With respect to the initial conditions, the relative abundance of land and the low level of population density have already been referred to. While we are ready to accept kinship relationships as exogenously given, there can be little doubt that they are a substitute for social security networks and that any inequality of the initial distribution of land and other assets historically permitted clan elites to capture politics. Unlike the case of the more homogeneous Asian superfamilies, we have here smaller kinship-loyal families, sustaining cooperation within the group, but without altruism travelling across ethnicities. Consequently, increased diversity leads to less collective action with respect to public goods and, at the aggregate level, to more engagement in free-riding, and consequent lower growth and other adverse developmental outcomes. As Avner Greif¹⁴ has also emphasized, citing European historical evidence, legal and political institutions

¹⁴ Greif, Avner, 1993.

foster intra-elite cooperation but inter-group non-cooperation. The same asymmetry exists with respect to social capital, relatively strong within ethnic groups but not extending across ethnic groups. Within groups, there is bonding going on, which is relatively weak across groups. Bridging across groups is, of course, difficult, even if better for optimization in the economic sense. The larger the extent of diversity the more bonding, and the less bridging.

The strength of natural resource endowments represents an important dimension of the initial conditions. Natural resources are an important cause of the likely asymmetry between different ethnic groups, depending on the vagaries of nature and culminating in the reduced incentive of those blessed with relative abundance to provide public goods to others. Moreover, the resource-dominant groups are likely to suffer from some manifestation of the so-called natural resource curse, encouraging rent-seeking and weakening the pressure for economic or institutional reforms, all of which, of course, contributes to sustained unequal distributions of income, both of the vertical and horizontal type. In this setting, local public goods are always preferred over national public goods and the same sort of asymmetries affect the overall quality of social capital which is based on intensive trust within rather than across groups. As Jonathan Temple¹⁵ points out, an initial unequal distribution of income generally affects development negatively. Similarly, Knack and Keefer¹⁶ support the position that trust is more pronounced, *ceteris paribus*, when incomes are more equally distributed.

Clearly, the spillover of social capital across ethnic boundaries, as well as the willingness to provide national public goods, depends very much on the overall

¹⁵ Temple, Jonathan, 1998.

¹⁶ Knack, Stephen & Keefer, Philip, 1997.

distribution of income, both of the vertical and horizontal types, which are, to some extent, overlapping. As Fosu, Bates and Hoeffler¹⁷ point out, heterogeneous societies are better at private goods provision, working through the market, but not very good at providing public goods. Greif emphasizes that land or mineral rights are usually critical and are not at all helped by dysfunctional institutions which obstruct egalitarian outcomes. Kinship groups can be useful in the private sector, as ethnic minorities benefit. But in the public sector they can be harmful, as ethnic majorities benefit. What is not clear and worthy of investigation is whether diversity improves the quality of private goods via an increase in variety.

All of this argues for the possible importance of decentralization. There exists, of course, a good deal of literature concerning vertical decentralization, both pro and con, with the pros emphasizing that local communities have more information and are likely to exhibit much less diversity than the center and the cons pointing to the greater likelihood that local elites will dominate. Vertical decentralization is seen as reducing friction but may also, as some authors point out, lead to the creation of regional parties with less interest in public goods at the national level. In other words, if too many groups form at the local level, no one is strong enough to control the state and no one is in a position to mobilize an “encompassing interest,” a la Mancur Olson, at the national level. Diversity builds trust within groups and, while vertical decentralization is helpful at the local level, it reduces trust at the national level, as well as the provision of public goods, with results already referred to.

¹⁷ Fosu, Augustin & Bates, Robert & Hoeffler, Anke, 2006.

Others, including Bardhan¹⁸ worry about the enhanced possibilities for corruption at the local level, often dominated by local elites. But the comparison between corruption at central and local levels is an unresolved issue and can only be settled by empirical, individual country analysis. In any case, with vertical decentralization leading to smaller jurisdictions exhibiting less diversity, ELF is reduced but there is a greater danger of polarization, i.e., a large minority opposing the central government, as pointed out by Yuichi Sasaoka.¹⁹ The fact is that most central governments are in the hands of a small elite using public goods to exercise patronage of one kind or another, mostly in the form of civil service employment.

Much less attention is paid in the literature to another kind of decentralization, i.e. the horizontal type, shifting power from the executive, especially the finance ministry, to the legislative branches at all levels, as well as to the judiciary, thus providing greater access for minorities which can make a large difference.²⁰ Trust can be strongly influenced by such an independent judiciary, a feature rarely in evidence.

As far as I can surmise, the jury is still out with respect to the impact of democracy on all this. Alesina et al.²¹ think diversity is less serious in democracies since minorities are more likely to feel represented. Barro²² finds that democracy enhances growth at low levels of income and depresses it at intermediate levels. Most of the parliamentary systems turn out to be more stable than presidential ones, especially when there are many clans represented by various political parties. With ethnic diversity more

¹⁸ Bardhan, Pranab K. & Mookherjee, Dilip, 2000.

¹⁹ Sasaoka, Yuichi, 2007.

²⁰ Brancati, Dawn, 2006.

²¹ Alesina, Alberto, Devleeschauwer, Arnaud, Easterly, William, Kurlat, Sergio & Wacziarg, Romain, 2003.

²² Barro, Robert J, 1996.

pronounced at the center, a diverse society benefits more from democracy and a more competitive political system lowers rent-seeking and increases efficiency. Bates, Greif, Humphreys and Singh²³ find that authoritarian governments lower TFP and thus growth and other dimensions of development. On the other hand, Besley and Kudamatsu²⁴ point out that autocratic regimes may be extremely good or bad, possibly performing better than democracies if the electorate is sufficiently well organized. If central government elites are sedentary bandits this may lead to resistance, possibly violence and lower growth, something that Bates, Greif et al call “a political trap.” But if the bandits are of the roving type this is more likely to generate instability as public goods become exceedingly scarce and are fought over. To conclude that democracy has little impact on growth but could have an impact on stability is a subject to which we shall return.

Since the role of markets is an important issue for our project, in the private sector minority kinship groups benefit from its relative impersonality while, in the public sector, minority kinship groups are disadvantaged and majorities benefit. Therefore, the ruling elite usually prefers the public sector, even if it is less efficient. With respect to production sectors, in agriculture the majority of kinship groups usually eschew social capital beyond their own jurisdiction. In industry, where minority groups are likely to gravitate, they benefit from the relatively larger, more urban, private activity. Hence, for any given distribution of political and economic resources one might expect a more market oriented system to be superior in terms of developmental outcomes. However, markets may also accentuate or even create horizontal inequalities, especially given an initial unequal distribution of natural resources. Moreover, a strong market orientation is

²³ Bates, Robert H., Greif, Avner, Humphreys, Macartan & Singh, Smita, 2004.

²⁴ Besley, Timothy J. & Kudamatsu, Masayuki, 2007.

often associated with a lower level of public goods and thus gives minorities less of an obligation to respect the state in terms of taxes or any other indication of support.

III. Diversity and Volatility

In this section, given the fact that very little research to date has focused on the relationship between diversity and instability, we intend to present a number of preliminary hypotheses which may, possibly, help stimulate future research in the context of this project. It is probably useful to differentiate here again among three types, the natural resource rich countries, those which have access to the oceans and depend on primary product exports and those which are landlocked and probably rank among the poorest.

There can be little doubt that the unequal distribution of natural resource wealth across different clans can be a cause of instability, as those who are not favored by nature are likely to object and provoke political instability, leading to economic instability. There is clearly a tendency for those blessed by nature to deny public goods to the rest of the body politic across ethnic borders, if only to yield sporadically, when under pressure. This may be one reason why it has been found in several empirical studies that the intermediate level of diversity, as measured by the ELF, leads to the worst case of political instability and, therefore, economic instability.

Turning to primary producing countries with access to trade, terms of trade fluctuations can be expected to be a major source of instability, especially affecting the commercially advantaged clans relative to those who are less advantaged. There is ample evidence that terms of trade fluctuations have very much affected growth in Sub-Saharan

Africa and it would not require a lot of additional research to show that, within particular countries, the more diverse the society, the more likely that terms of trade fluctuations will lead to fluctuations in development, including growth, poverty and income distribution outcomes. There is evidence that exposure to terms of trade volatility is 50% higher in Sub-Saharan Africa than in other developing countries, after controlling for differences in incomes per capita. Food insecurity, also unequally affecting different clans, can similarly enhance economic volatility.

In addition, terms of trade fluctuations are usually badly managed by governments. During downturns a government typically tries to supplement demand via government budget deficits and monetary expansion, while, during upturns, it becomes very bullish and tries to enhance growth by means of foreign borrowing and, once again, domestic expansionary fiscal and monetary policies. Such asymmetry over the cycle ultimately leads to crisis, to the imposition of import restrictions, of devaluations, and other sudden changes in overall policy, in a system under duress, all of which has the effect of generating instability. Easterly, Kremer, Pritchett and Summers²⁵ indicate that terms of trade shocks explain much of the growth fluctuations in Africa. Country characteristics, of course, matter, but policies matter less than the extent of externally caused volatility, affecting different groups differentially. Internal policies may add to the problem. For example, export marketing boards, which are still prevalent in some countries, have erratic price-setting policies, often favoring the commercialized regions of a country and contributing to overall volatility. To reduce such boom and bust oscillations one needs a democracy with relatively strong checks and balances, as, for example, in the Botswana diamonds case.

²⁵ Easterly, William, Kremer, Michael, Pritchett, Lant & Summers, Lawrence H., 1993.

With respect to all three types of African countries, including the land-locked, it can be assumed that frequent political turnover and regime change, which has been an endemic feature of much of Sub-Saharan Africa, leads not only to political but also economic instability. It should not be difficult to trace the number of coups, changes in governments, even in ministers of finance, as causal agents in this respect. Oscillation between a market orientation and a controls orientation in policy, which is often referred to as sub-optimal for development generally, can also be considered a likely cause of instability, especially if these decisions are the result of continuous bargaining between different ethnic groups and the central government. Power-sharing as a solution, via proportional representation, mutual veto and decentralization²⁶ has not been much in evidence in Africa. If decentralization takes the form of delegation or deconcentration, not devolution to local bodies in the form of fiscal decentralization, reliance on the center's funds for public goods is retained. This maintains power in the hands of those who control lives and is likely to lead to lobbying, continuous bargaining, uncertainty, conflict and economic fluctuations. As Kimenyi²⁷ points out, ethnic heterogeneity leads to the under-provision of non-excludable public goods but favors excludable patronage goods. Resistance to this system by minorities risks higher instability, especially if combined with the central government's inequitable tax and other direct interventions in favor of the elite, permitting trust to fluctuate and decline over time. Of course, if clan population proportions change, especially in closely split polarized societies, another reason for volatility makes its appearance. The possibility of alternating roving and

²⁶ Lijphart, Arend, 1977.

²⁷ Kimenyi, Mwangi S., 2006.

stationary bandit regimes is not at all unrealistic and also relevant to the issue of instability.

Another source of instability results from the gradual shift in much of Sub-Saharan Africa from traditional communal land ownership, with virtually unlimited supplies of land, to private ownership and modern property rights, as land shortage, combined with population increase, leads to titling, insecurity and volatility.

Other agents of globalization may well contribute to economic instability. For example, it is no secret that foreign aid agencies often play favorites, supporting natural resource-rich regions or politically attractive clans from their own foreign policy points of view, thus exacerbating both horizontal and vertical inequalities and causing political as well as economic instability. NGOs, which are increasingly numerous in quantity and influential in terms of resources, but weak in terms of cohesion and accountability, are often found competing with each other and jockeying for favor among various ethnic groups, thus making a contribution to an increase in volatility.

IV. Concluding Thoughts

In conclusion, it should be amply clear that we know a good deal about the impact of diversity on development, mostly on growth, but that we have relatively little evidence to date on the impact of diversity on instability. Therefore this particular project seems to have ample room for making a substantial contribution.

What I've tried to do in section II is to cite as many of the known facts and conclusions that have come to my attention from research in the past on the subject of the impact of diversity on growth and to present best guesses, not yet based on the literature,

of what causal links between diversity and instability might be worthy of future examination, in Section III. Country studies, pitting Ghana versus Kenya and Nigeria versus Botswana would certainly be indicated.

It is suggested that careful attention be given to decentralization which may be stabilizing if it is accompanied by fiscal devolution, but not if the center retains the bulk of resources and is able to favor culturally aligned groups and those already favored by nature at the local level. Thus, the best sequence seems to be economic reforms followed by both political and fiscal decentralization. The role of foreign capital, especially foreign aid and NGO flows, possibly, but not necessarily, contributing to instability, needs to be examined.

The basic normative issue before us is how enhanced and non volatile trust can be generated in the presence of diversity and how the related issue of sustainably encouraging the provision of national public goods can best be tackled. As Jean-Philippe Platteau,²⁸ aptly put it “how generalized trust... can be established ... is probably one of the most challenging questions confronting development scholars.”

²⁸ Platteau, Jean-Philippe, 1994.

References

- Alesina, Alberto & Devleeschauwer, Arnaud & Easterly, William & Kurlat, Sergio & Wacziarg, Romain, 2003. "Fractionalization," NBER Working Papers 9411, National Bureau of Economic Research, Inc.
- Bardhan, Pranab K. & Mookherjee, Dilip, 2000. "Capture and Governance at Local and National Levels," *American Economic Review*, American Economic Association, vol. 90(2), pages 135-139, May.
- Barro, Robert J, 1991. "Economic Growth in a Cross Section of Countries," *The Quarterly Journal of Economics*, MIT Press, vol. 106(2), pages 407-43, May.
- Barro, Robert J, 1996. "Democracy and Growth," *Journal of Economic Growth*, Springer, vol. 1(1), pages 1-27, March.
- Bates, Robert H., 2000. "Ethnicity and Development in Africa: A Reappraisal," *American Economic Review*, American Economic Association, vol. 90(2), pages 131-134, May.
- Bates, Robert H. & Greif, Avner & Humphreys, Macartan & Singh, Smita, 2004. "Institutions and Development," CID Working Paper No. 107, September
- Besley, Timothy J. & Kudamatsu, Masayuki, 2007. "Making Autocracy Work," CEPR Discussion Papers 6371, C.E.P.R. Discussion Papers. June
- Brancati, Dawn, 2006. "Decentralization: Fueling the Fire or Dampening the Flames of Ethnic Conflict and Secessionism?," *International Organization*, Cambridge University Press, vol. 60(03), pages 651-685, July.
- Collier, Paul, 1998. "The Political Economy of Ethnicity," Working Papers Series 98-8, Centre for the Study of African Economies, University of Oxford. September
- Collier, Paul, & Gunning, Jan-Willem, 1999. "Explaining African Economic Performance," *Journal of Economic Literature*, American Economic Association, vol. 37(1), pages 64-111, March.
- Collier, Paul, 2007. "Growth Strategies for Africa," A paper prepared for the Spence Commission on Economic Growth, January
- Easterly, William, Kremer, Michael, Pritchett, Lant & Summers, Lawrence H., 1993. "Good policy or good luck?: Country growth performance and temporary shocks," *Journal of Monetary Economics*, Elsevier, vol. 32(3), pages 459-483, December.
- Easterly, William & Levine, Ross, 1997. "Africa's Growth Tragedy: Policies and Ethnic Divisions," *The Quarterly Journal of Economics*, MIT Press, vol. 112(4), pages 1203-50, November.

Esteban, Joan & Ray, Debraj, 1994. "On the Measurement of Polarization," *Econometrica*, Econometric Society, vol. 62(4), pages 819-51, July.

Fosu, Augustin & Bates, Robert & Hoeffler, Anke, 2006. "Institutions, Governance and Economic Development in Africa: An Overview," *Journal of African Economies*, Oxford University Press, vol. 15(1), pages 1-9, April.

Greif, Avner, 1993. "Contract Enforceability and Economic Institutions in Early Trade: the Maghribi Traders' Coalition," *American Economic Review*, vol. 83(3), pages 525-48, June.

Kimenyi, Mwangi S., 2006. "Ethnicity, Governance and the Provision of Public Goods," *Journal of African Economies*, Oxford University Press, vol. 15(1), pages 62-99, April.

Knack, Stephen & Keefer, Philip, 1997. "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation," *The Quarterly Journal of Economics*, MIT Press, vol. 112(4), pages 1251-88, November.

Lijphart, Arend, 1977, *Democracy in Plural Societies, A Comparative Exploration*. New Haven: Yale Univ. Press. September

Montalvo, Jose G. & Reynal-Querol, Marta, 2005. "Ethnic diversity and economic development," *Journal of Development Economics*, Elsevier, vol. 76(2), pages 293-323, April.

Platteau, Jean-Philippe, 1994, "Behind the market stage where real societies exist - part I: The role of public and private order institutions", *Journal of Development Studies*, Volume 30, Issue 3, pages 533 – 577, April

Reynal-Querol, Marta, 2002. Ethnicity, Political Systems, and Civil Wars, *Journal of Conflict Resolution*, vol. 46: pages 29 – 54, February.

Sachs, Jeffrey D & Warner, Andrew M, 1997. "Sources of Slow Growth in African Economies," *Journal of African Economies*, Oxford University Press, vol. 6(3), pages 335-76, October.

Temple, Jonathan, 1998. "Initial Conditions, Social Capital and Growth in Africa," *Journal of African Economies*, Oxford University Press, vol. 7(3), pages 309-47, October.

Sasaoka, Yuichi, 2007. "Decentralization and Conflict," JICA paper, presented at Wilton Park Conference on Conflict Prevention and Development Cooperation in Africa, UK. Nov.8-11.