

Education, Empowerment and Gender Inequalities**By****Ravi Kanbur*****Cornell University**www.people.cornell.edu/pages/sk145sk145@cornell.edu**April 2002**

Contents

1. Introduction
2. Are Gender Inequalities “Large”?
3. Do Gender Inequalities Inhibit Efficiency and Growth?
4. Is Inequality of Power the Fundamental Gender Inequality?
5. Conclusion

Abstract

This paper considers a seeming disconnect between the consensus in policy circles that reducing gender inequalities is to be prioritized in strategies for reducing inequality and poverty, and a view in mainstream economics (and in some policy circles) that gender inequalities are overemphasized. This latter view is not stated openly, it being politically incorrect to do so, but is nevertheless present. In specific terms, there is a sense that gender inequalities are not large relative to other types of inequalities, that the evidence on the consequences of gender inequality for economic growth is weak, and that in any event inequality of power is not something that should receive policy priority over conventional economic interventions. This paper takes these positions seriously, and argues that on some readings the narrowly economic evidence does indeed support them, but that to some extent this is an issue with the economic evidence and with its interpretation. A reexamination of the evidence and the arguments suggests a number of directions for research and analysis in exploring the economics of gender inequalities.

* T.H. Lee Professor of World Affairs and Professor of Economics, Cornell University. Paper prepared for the Annual Bank Conference on Development Economics, Washington, D.C., April 29-30, 2002.

1. Introduction

“Gender inequality hurts all members of society, not just girls and women.”

--*World Bank*, <http://www.worldbank.org/developmentnews/stories/html/120701a.htm>

“Are we focusing on women because we believe that gender is a good category for addressing the inequalities in the world? That is certainly false by an order of magnitude, maybe two.”

--*Anonymous reviewer of the initial proposal for this paper.*

As with trade liberalization, gender equity is part of the World Bank’s mantra on equitable development and poverty reduction. Unlike trade liberalization, gender equity is the part of the mantra that I personally welcome and repeat. But apparently, not everyone is convinced. The stark position taken above by an anonymous reviewer of an earlier proposal for this paper could be easily caricatured and dismissed, but that would be a mistake.¹ Although such positions are rarely stated in public these days, because it is politically incorrect to do so, they are more widespread in mainstream economic thinking than is commonly realized. And, what is more, they are intimately related to the economic evidence on gender inequality, and to the frameworks for interpreting them.

What might underlie the disquiet about the emphasis being given to gender inequalities? I identify three possible strands in this paper. First, there is a sense that gender inequalities, in education and in other variables, are not as large as they are made

¹ My original proposal, entitled “Education and the Empowerment of Women,” was for a paper that attempted to integrate intra-household bargaining models (for example of the type in Ghosh and Kanbur, 2002) and political economy models of policy determination, in the context of educational choices and expenditures. But when I read the general arguments being advanced in the review I set about looking at the evidence on gender inequalities in detail, and the nature of the paper changed (the modeling exercise will have to wait for another occasion).

out to be, in comparison with inequalities along other dimensions such as country of residence. Second, there is the argument that the macroeconomic evidence for the beneficial effects on growth of reducing gender inequalities, again in education for example, is weak. Third, there is a view that to the extent that gender inequalities need to be addressed, the focus should be on economic and social inequalities, such as inequality in consumption or in education, and not on inequalities in power.

Why do such views persist at the core of mainstream economic thinking? I believe the answer is that the narrowly economic evidence can be, and is, read as giving support to these positions. At least, it is seen as not supporting prioritization of reducing gender inequalities as strongly as the policy conventional wisdom now seems to advocate.² This paper argues that there is some truth to this characterization of the currently available economic evidence. However, this is a reflection on the nature of that evidence. It is important for economists and policy analysts to understand these concerns and to address them where possible—in narrowly economic terms as well as in broader disciplinary contexts.

The outline of the paper is as follows. Section 2 takes up the exact sense in which gender inequalities are “large”, by considering different ways of defining “large” and through different comparisons of inequalities in various outcomes. Throughout the paper, there will be a focus on gender inequalities in education, because of the prominence it receives in the literature, but other aspects such as consumption will also be considered. Section 3 looks at the evidence on gender inequality and economic growth, and finds that

in conventional macro economic studies, causality is not as strongly established as one would like. Section 4 argues that the dominant household model in mainstream economics, the unitary household with unique and given preferences, tends by its nature to emphasize economic inequalities over political ones. Section 5 concludes the paper with a discussion of the implications of the disconnect between the policy consensus and the narrowly economic evidence and argument, and highlights the interesting research question that arise as a result.

2. Are Gender Inequalities “Large”?

How are we to address the question of whether or not gender inequalities are “large”? There are both conceptual and empirical issues. Conceptually, a common enough approach is the following. Consider any variable measuring individual attainment, the inequality of which is of interest. This could be educational attainment, or consumption, for example. The inequality in the distribution of this variable across individuals can be measured using any one of a number of standard inequality indices. Suppose now that individuals also have other characteristics such as gender, location, or age. Each characteristic divides individuals into mutually exclusive and exhaustive groups. The overall distribution of the variable of interest can now be seen as composed of sub-distributions for each group. Inequality between the groups can then be related to the differences in the means between the groups, with inequality within groups reflected in the spread of the variable around each group’s average.

² The most recent statement of the policy conventional wisdom is World Bank (2001).

If gender is the characteristic in question, then gender inequality can be measured simply in terms of the differences in the mean of the variable for men and for women (this is also an estimate of the difference in the expected value of the variable conditional upon being a member of one group or another). Another method is to “decompose” overall inequality into its “between group and “within group” components following standard techniques, and to use the between group component as the measure of gender inequality³. Yet another method is to regress the variable against a gender dummy and to use the percentage of variation explained as a measure of the degree of gender inequality. Any of these measures can then be compared to the corresponding measure for another characteristic, for example location, to draw a conclusion about whether gender inequality is “large” relative to other groupings in society.

All three of the above measures are used in the literature to argue the case for the importance, or otherwise, of gender inequality.⁴ But it is important to make sure that like is being compared with like. The most common way in which this requirement is violated is when comparing the measures for characteristics that do not have the same number of categories. For example, the problem arises if gender, with two categories, is compared with location (e.g. counties in international comparisons, or provinces for comparisons within a country), which has more categories. For a start, it is not clear how mean differences between two groups are to be compared to mean difference between more

³ See Shorrocks (1984).

⁴ For example, the work of Filmer (1999) is sometimes used to argue that when wealth, gender and residence gaps are used simultaneously to explain variations in social outcomes, not much is left for gender to explain once the other two variables are in play.

than two groups. The second measure above does allow comparisons in this case, but as the number of categories increase the within group component will tend to decrease—certainly in the limit, when the number of categories is the same as the number of individuals, only the between group component remains. Similarly, as the number of categories increases in a regression variable, the explanatory power of that variable also increases.

Consider therefore whether the gender dimension of educational inequality is “large” when comparing gender with wealth (or income), which is often done, with the conclusion that wealth “accounts for” more inequality than does gender. But wealth, in these analyses, is an individual level variable—in other words, there are as many categories for this characteristic as there are individuals. It is not surprising, then, that gender-based inequality in education is not “large” compared to wealth-based inequality in education. A fairer comparison would be to treat wealth also as two categories—high and low. But even here, there is no natural dividing between high and low wealth (in the way that there is a natural division for gender), although above and below the population mean might be one option. Clearly, wealth inequality in education would loom less large if this were done, but the actual numerical values will vary across empirical contexts.

The above discussion for inequality has a natural extension to poverty. Given a critical cut off (the “poverty line”) for the variable in question (educational attainment or consumption), a number of poverty indices can be used to describe the lower end of the distribution. Of particular interest are the FGT family of indices, which can be

decomposed across characteristics that divide individuals into mutually exclusive and exhaustive groups as before.⁵ In this case, each FGT index can be written as a weighted sum of group FGT's, each weight being the population share of the group in question. The analog to the question of whether gender inequality is high is now whether differences across gender groups contribute “a lot” to overall poverty. The corresponding thought experiment might be to equalize means across gender groups and ask, how much does this change poverty, compared to the same exercise for another characteristic with the same number of categories.

Such an exercise has not been done in the literature, to my knowledge. However, the following thought experiment has been analyzed.⁶ Consider a small redistribution from one category to another, taking small amounts from each individual in one group and transferring the proceeds to individuals in the other group. Such marginal redistributions may in any case be more policy relevant than complete elimination of inequality between groups in one fell swoop. What is the impact on poverty? The answer clearly depends on the details of the redistribution. For the case where subtractions and additions are additive, a particularly clear result is available for the FGT family. For FGT(a), where ‘a’ is the famous “poverty aversion” parameter, such a redistribution reduces poverty in proportion to the difference between FGT(a-1) for the two groups. Thus, from this perspective, absolute differences in FGT(a-1) for men and women become a measure of how “large” gender inequality is. This difference is to be compared to the corresponding difference for the two groups defined by another characteristic such

⁵ See Foster, Greer and Thorbecke (1984).

⁶ Kanbur (1987).

as location (e.g. urban/rural), age (young/old) or employment status (employed/unemployed).⁷

The thought experiments above have a key feature—they keep the overall mean of the variable in question constant. This accords well with the “constant budget comparisons” principle of modern public finance analysis when the variable in question is consumption or income. But thinking of the variable as educational attainment raises questions about the constant budget requirement, unless it is assumed that the unit cost of educational attainment is constant. More generally, there is the question of the actual administrative and economic costs of the redistribution attempted in the thought experiment. These costs are unlikely to be the same across different categories such as gender, age or location. Thus using the “thought experiment impact” of redistribution across categories, as a measure of the quantitative magnitude of the inequality across these categories, is not complete without an assessment of the costs of these redistributions. Such comparative assessments are not found in the literature. And yet, without such analysis, any answer to the question of whether gender inequalities are “large” will not have adequate conceptual foundation.

So much for the conceptualization of whether gender inequality is “large”. In empirical implementation, a fundamental problem presents itself. This is that, for the standard consumption based measures of poverty, we cannot identify individual values through our standard household survey data sets. While education can be measured directly as an individual attainment, consumption data is collected at the household level,

⁷ The analysis can be extended from giving guidance on marginal redistributions to a characterization of the fully optimal redistribution, using this or that category across which to redistribute. See Ravallion and Chao

and the way of generating individual level consumption is to assume that allocation is equal distribution across the members of the household (or, in a few studies, according to adult equivalent scales). Thus the most commonly used variable in distributional analysis simply cannot address gender differences per se. Rather, differences in gender are forced to be differences across households in which the genders live. The same is true of age. The household level characteristics include, of course, location and the average consumption or wealth of the households. Is it any wonder then that gender does not explain individual outcomes in consumption over and above wealth of the household or average consumption of the household, or averages for region or country of the household?

There is a well-known literature on comparing “female headed households” with the average household, to try and get at gender differences. Interesting as these comparisons are in their own terms (for example in highlighting the plight of widows in India), it should be clear that the comparison cannot conceptually be used to pronounce on whether gender difference are “small” or “large”.⁸ There is also a small literature on genuinely trying to identify individual consumption by focusing on food intake. One study, which used calorie intake (adjusted for needs) and calculated the understatement of true inequality and poverty compared to standard procedures that ignore intra-household

(1989) and Ravallion and Sen (1994) for such “optimal targeting” calculations for geographical and for land holding categories, respectively.

⁸ In any event, the literature is inconclusive. For example, Buvinic and Gupta (1997) find a preponderance of cases where female headed households poorer than average, but Quisumbing, Haddad, and Pena (2000) find a significant difference in very few of the cases they consider.

inequality, came up with a figure of 30-40 %. But this was for all aspects of intra-household inequality, not just gender differences.⁹

The prospects for getting true measures of individual level consumption are not bright. The problems are conceptual as well as empirical. The individual food consumption data methods have their own problems. Once we get beyond food, it is not clear how precisely to allocate household public goods consumption across individuals, especially if preferences differ across individuals. Thus, we are stuck with a situation that our standard “headline” measures of consumption based poverty assume no gender difference within the household, and there is no way of assessing how serious an assumption this is within the same framework. Not surprisingly, other variables, information on which can indeed be collected at the individual level, will always remain important in the study of gender differences. These variables include education, health, income streams and time use. And assessing whether gender inequality is “large” in terms of these variables takes us back to the issues raised at the start of this section, and underscores the importance of addressing the conceptual issues raised there in specific empirical contexts.

3. Do Gender Inequalities Inhibit Efficiency and Growth?

Whether gender inequalities are “large” is important in understanding whether gender based redistribution could have a major impact on overall inequality and poverty,

⁹ See Haddad and Kanbur (1990). But other nutrition based studies are inconclusive on whether nutrition within the household is unequally distributed relative to need—for example, Appleton and Collier (1995).

in particular compared to inequalities in other dimensions. But this may also be important for another reason—if it can be showed that gender inequality impedes overall efficiency and growth, either directly or because of its contribution to overall inequality. In particular, the gender dimension of education inequality is often emphasized as holding back economic growth.

The most striking feature of the literature encompassing inequality, education, gender and growth is the strong disconnect between the theoretical and micro-empirical studies on the one hand, and the macro-empirical studies on the other. The former invariably produce arguments or evidence for why education inequality and inequality in general, and gender inequality in particular, can impede efficiency and growth. The latter set of studies tends to be far more agnostic, if not directly contradicting the micro studies. Focusing on one set versus the other could give a totally different picture on gender inequality, efficiency and growth.

Start with inequality in general. A whole host of theoretical studies in the last fifteen years suggest that, contrary to the earlier conventional wisdom that inequality helped growth because the rich saved a higher proportion of their income than the poor, high inequality in a general sense can be detrimental to efficiency and growth. This literature has been surveyed in Kanbur (2000) and in Kanbur and Lustig (2000), and there is no need to go into detail here.¹⁰ Suffice it to say that the basic structure of the argument takes off from a second best world where, for example, incentive compatibility constraints bite. Redistribution can then release these constraints, thereby permitting welfare gains, even perhaps Pareto improvements. Another line of argument follows from

political economy effects on policy, it being shown that a more equal distribution of endowments leads to a more pro-growth policy being chosen by the political institutions.

In stark contrast to the tone of the theoretical literature, the empirical literature is much more circumspect. The “reverse Kuznets effect” literature, which tries to explain growth in a cross-section of countries as a function of the standard variables plus inequality at the start of the growth period, started off with a strong push in the direction of a negative relationship between inequality and growth.¹¹ However, recent papers have been less clear cut, some even suggesting that the relationship is positive, which is back to the old conventional wisdom.¹² The fact that the empirical literature is inconclusive is surely related to the well-known problems of data and method, well known from the old Kuznets curve literature, which itself found no relationship between inequality and per capita gnp in cross section econometrics.¹³ While the inequality data set has improved over the last two decades, major problems of comparability and quality still remain.¹⁴ Methodologically, the central problem in establishing causality is in identifying exogenous movements of the inequality variable that are not capturing other differences to a large extent.¹⁵

¹⁰ See also Aghion, Caroli and Garcia -Penalosa (1999), or Benhabib and Rustichini (1996).

¹¹ Alesina and Rodrik (1994), Persson and Tabellini (1994), and Alesina and Perotti (1996) are a selection of papers in this vein.

¹² Forbes (2000) finds a positive and significant association between inequality and growth, while Banerjee and Duflo (2000) find that the growth rate is an inverted-U shape function of changes in inequality.

Arguello (2002) finds that “there is virtually no panel estimation evidence here of a negative correlation between inequality and growth.” See also Li and Zou (1998).

¹³ For an early critique of studies that claimed to find a Kuznets curve, see Anand and Kanbur (1993). For more recent critiques, using expanded data sets, see, for example, Li, Squire and Zou (1998).

¹⁴ A critique focusing simply on the OECD data in the newly available data sets is provided by Atkinson and Brandolini (2001). The problems apply with greater force to developing country data sets.

¹⁵ In a recent paper, for example, Easterly (2001a) claims to have found a novel instrument—settler mortality in newly settled colonies.

Turning now to gender inequality, there is considerable micro level evidence that gender asymmetries of various sorts lead to inefficiency. Typically, these studies argue that women are constrained from efficient use of certain inputs like credit, or inefficiently low supply of effort because of labor market discrimination, which leads to inefficiently excessive exploitation of other inputs, like common property resources. Equalization, in the sense of lifting these constraints on women can thus be shown to increase efficiency.¹⁶ More general arguments flow from the strongly established effect of female education on fertility and a (more controversial) causal relationship of low fertility to growth.¹⁷ But again, finding effects at the macro level, for example finding a strong relationship between gender inequality in education and growth, proves to be more difficult.

Before turning to the effect of gender inequality on growth, it should be noted that there is a strong disconnect between micro and macro results on education and growth in general. At the micro level, human capital theory underpins a strong relationship between earnings and education, a relationship that is one of the more strongly established in micro applied economics. Of course, this relationship applies equally to men and women. Some years ago, this micro relationship was also argued to be present in the macro data, showing that as average education levels increased, average income levels and income growth rates also rose. But research in the last decade has left the position much less certain, particularly for developing countries. There was a tremendous expansion of education as officially measured in the decades after 1960. However, the effects on

¹⁶ See the papers by Tzannatos (1999) and Ilahi (2000).

¹⁷ Jejeebhoy (1995), Klasen (1999).

growth have proved difficult to detect (after all, as education levels increased from the 1960s to the 1980s, growth rates moved in the opposite direction).¹⁸

Perhaps one reason for the lack of a relationship between levels of education and growth is that gender inequality in education was increasing during this period. In fact, this inequality, as measured by the differential enrollment rates, also declined, although its levels remain high. Of course, this could still be consistent with a positive contribution of education equity to growth, and we need to look at the analysis more carefully. In doing so, we should be careful to distinguish between the effect of simply increasing female education holding male education constant, and a genuine inequality effect over and above the level effect. In any event, as documented in World Bank (2001), despite some studies that argue for a positive effect of gender education equality on growth, the picture emerging from cross-country regression analysis is decidedly mixed.¹⁹ But this should not be surprising, given the inconclusive nature of the broader literature on education and growth and on inequality and growth. Indeed, it would be surprising if it were otherwise.

4. Is Inequality of Power the Fundamental Inequality?

¹⁸ Easterly (2001) presents a formidable critique of the methods and conclusion of the education and growth literature based on the work of Pritchett (1997), Klenow and Rodriguez-Clare (1997) and Judson (1996), Benhabib and Spiegel (1994), among others.

¹⁹ Barro and Lee (1994) argued that gender inequality actually improved growth. Dollar and Gatti (1999) and Klasen (1999) are the current studies that argue for a significant effect of gender inequality in education on economic growth. The exercises in Knowles, Lorgelly and Owen (2000) show how sensitive the conclusions can be to different specifications.

Whatever one's view of whether gender differences are "large", and on their consequences for inequality, poverty and growth, why are female achievements (in education, but also along other dimensions) lower than those of males?

One way to approach this is to consider the interaction between household level processes, and processes and parameters that are outside the household, in the community, the country and the world. Consider two models of the household, "unitary" and "bargaining". In the unitary model, the household acts as if it has a single and given set of preferences and chooses its actions to satisfy these preferences given the constraint set.²⁰ In this setting, as the outside parameters become more unfavorable to women—for example, as gender discrimination in the labor market increases, or as the schooling that girls receive worsens, the household will rationally deploy its labor accordingly. It will send its women out to work less and send its girls out to schools less as well. But any given level of total household resources will still be divided in the same way as before, according to the household preference function.

In the bargaining model, members of the household (for simplicity, the man and the woman) have outside options, but are in a household for various reasons, among which are various types of joint production and scale economies.²¹ The issue of distribution of these benefits, as viewed by individual preferences, is an open one in the bargaining model. It depends on, among other things, the outside options facing individuals. But these outside options are themselves determined by parameters and processes outside the household.

²⁰ A standard application of this framework to agricultural household is seen in Sigh, Squire and Strauss (1986).

With this framework, there is an intricate and interacting relationship between inequality of “power” and inequality of outcomes for men and women. But it is different for the two views of how a household operates. Thus with unitary households, external moves to improve education for women, by removing discriminatory practices, will improve the position of the household as a whole, assuming its preferences were such as to want to send girls to school. But the same applies to credit constraints, land inequality, and a plethora of other external factors that constrain households independently of a gender dimension. However, with a bargaining view of the household, outside parameters that affect outside options of men and women have a deep impact on the distribution of the gains from household activity, including the distribution of consumption, expenditures on education, health care, time allocation and so on.

There are two senses in which power is being exercised here. One is in the determination of the outside parameters, to the extent that they are affected by political processes and social norms. This is the same for the unitary and the bargaining models. The other is in the determination of outcomes within the household. This is radically different for the two models. In particular, notice that in the unitary model women and men will be equally interested in changing outside parameters in so far as the change benefits their household’s total resources (which will then be divided according to the household preferences). Put another way, women will not necessarily be more interested in reforming discriminatory land ownership regulations than, say, improving overall credit to the region in which they live. Of course changing these overall policies and structures will pit different types of households, and perhaps rich versus poor households,

²¹ One of the first attempts to formalize this set up is found in Manser and Brown (1980). For more recent

against each other. But there will not be a gender dimension to the politics, certainly not within the household by definition, but also not outside the household.

However, the bargaining model leads to a gender dimension of politics inside and outside the household. Outside options determine bargaining power within households, and bargaining power determines outcomes for men and women in terms of individual outcomes within the household. These are the two precise senses in which inequality of power is the fundamental inequality explaining outcomes—first, intrahousehold power given the outside parameters, second the power to influence the political process that affects the outside parameters. Notice that, on the second, with a bargaining model there is a clear gender dimension to politics outside the household as well.

Now, there is a sense in which, even in the bargaining model, it can be argued that direct political power is not as fundamental. This is found in an oft heard argument, that it is better to improve women's education and their labor market position rather than, for example, to improve their capacity to organize themselves into a political force to change these parameters for themselves. The reasoning is that improving education opportunities and other economic opportunities for women will strengthen their bargaining power within the household, which will further improve their outcomes and resources. These improved resources will then provide the base for women to organize themselves. Without economic resources to start with, organization to change outside parameters will be weak. In this sense therefore, political empowerment must take second place to economic advancement for women, which will empower them within the household and then, eventually, outside the household.

modeling in this vein, see Kanbur and Haddad (1994) and Ghosh and Kanbur (2002).

This is a powerful argument, but it can be countered to some extent, on the grounds that we cannot assume that increased education for women, and reduced discrimination in factor markets, will happen just like that. Such changes are themselves outcomes of political processes, and unless the preferences of women are given weight in these processes, either directly or through “enlightened” intermediaries, they will not happen, or not happen as fast and not in quite the best way for women. While enlightened intermediaries are always welcome, and there may be long periods when they are all that are on the scene, the objective must always be to increase the voice and power of women in political and social processes outside the household. The difficulty is partly that we do not have any idea of the relative costs, per unit of gain in outcomes for women, of the economic versus empowerment alternatives—supporting access to credit for women versus supporting women’s organizations, for example. In the absence of such specific evidence, there is polarization on which tack to take, with the standard compromise reached in policy syntheses, that we should do both.²²

But the basic argument on inequality of power between the genders being fundamental, cannot get off the ground if the unitary model rules the roost, which it still does among mainstream economists. This is despite many studies that purport to show, for example, that the income pooling hypothesis, a key implication of the unitary model, is not supported by the data. According to this hypothesis, what should matter to household expenditure patterns are the total resources of the household, not who brings in those resources. Again and again, it is shown that who brings in the income does matter

²² As seen, for example, in World Bank (2001)

to the allocation of household resources.²³ But mainstream economists, as evidenced by the bulk of ongoing research on demand patterns, on general policy analysis, and by what is taught in basic courses, still continue to be unitarist by instinct, raising methodological issues with these studies. In particular, the standard argument is that the same factors might affect the composition of income as, for example, relative expenditure on women's clothing (because a woman who goes out to work will need to spend more on work clothes). Even though seven years ago, in light of the mounting evidence a manifesto was issued to "shift the burden of proof" to those who would argue in favor of the unitary model, this shift is not really seen in economics or even in development economics.²⁴ As a result, interventions that directly address inequality of power do not get as strong a support as they might from mainstream economics.

5. Conclusion

This paper has argued that the narrowly economic evidence can indeed be read as supporting the view that gender inequalities (in education in other variables) are not large, that they do not necessarily impede economic growth, and that in any case addressing gender inequalities of power should receive less priority than more conventional economic interventions. While those who hold these views could be dismissed as being in a minority, this would be a mistake. Despite the impressive synthesis represented by World Bank (2001), such views are more widespread than

²³ See the impressive compilation in Appendix 4 of World Bank (2001). The studies include: Browning and Chiappori (1998), Quisumbing and Maluccio (1999), Lundberg, Pollak and Wales (1997), Haddad and Hodinott (1994) and Thomas (1997).

²⁴ See Alderman et. al. (1995).

commonly realized, and are in any case intimately connected to the nature of economic evidence and the framework for interpreting them. Taking the views seriously leads to an interesting research and data collection agenda even in terms of conventional economic analysis.

Comparing the contribution of gender inequalities to overall inequality, with other divisions such as age or location, poses a basic conceptual problem because while gender has only two categories, other divisions tend to have more than two. There is thus a natural tendency for the contribution of gender to be understated. Correcting for this understatement raises interesting analytical questions—for example, how does the between-group component of decomposable inequality indices behave as the number of groups increases? Clearly, any general conclusions can only be reached in terms of the mathematical expectation of this component across all possible two-group divisions, versus all possible three-group divisions, four-group divisions, etc. I am not aware of such an analysis in the literature, but it is essential as the first step to an empirical assessment of whether gender inequalities are “large” relative to inequalities along other dimensions.

Despite the evidence and arguments marshaled in World Bank (2001), there is not a groundswell of consensus in mainstream economics on the macroeconomic evidence for the positive benefits of gender equality for growth. Partly this is because the cross-country regressions based evidence on causality from inequality in general to growth in particular is decidedly mixed. Kanbur and Lustig (2000) noted that “the jury is still out” and, since then, studies have continued to appear that have supported one line or the other. It is also partly because, given that gender inequality in education is a key focus,

the macroeconomic empirical literature on growth and education itself is deeply inconclusive. These strands of the literature set the stage for skepticism on discovering strong causal connections between gender inequality and growth as the literature now stands. There is no alternative here but to persevere, at every level of the literature, with finding persuasive instrumental variables that can convince a skeptical profession that the causality issue really has been tackled, as well as continuing to improve the quality of the data sets.

After two decades of mounting evidence that indicates violations of the predictions of the unitary model of the household, mainstream economics still continues to use it as the workhorse model, and to teach it to its students as the dominant view of the profession. It is argued here that so long as the unitary model dominates economics teaching and discourse, inequalities of power will naturally get secondary importance in comparison with standard economic (and social) interventions. This is something that needs to be tackled at the core of mainstream economics through yet more evidence on violations of the unitary model assumption, but also through the increased deployment of non-unitary approaches, in modeling and in empirical analysis, to “conventional” topics such as optimal taxation policy, consequences of trade for income distribution, composition of public expenditure, etc.²⁵ The intrahousehold development economics literature is, for the moment, ahead of the curve.

Thus the seemingly contrarian views on gender inequality link closely to the current state of development economics. Even within its own terms, taking these views seriously

²⁵ See, for example, the exercises in Kanbur and Haddad (1994), Haddad and Kanbur (1993), and Basu (2001).

leads to very interesting lines of research. But, in conclusion, let us note that there is a vast realm of evidence produced by other disciplines and other methodologies, evidence that supports the view that gender inequalities are large, that they impede efficiency, and that inequality of power is fundamental. Such evidence is partially surveyed in World Bank (2001). But this evidence is typically qualitative in nature, differing in methods and interpretation from the typically quantitative approaches in economics. Taking qualitative approaches seriously, and integrating them with quantitative approaches, is another line of enquiry that stands out for development economics as it grapples with the fundamental issue of gender inequalities, their causes, and their consequences.²⁶

²⁶ For an assessment of complementarities between qualitative and quantitative methods, and ways of combining them, see Kanbur (2001). On development economics and other social science disciplines, see Kanbur (2002).

References

- Aghion, Philippe, Eve Caroli and Cecilia Garcia-Penalosa. 1999. "Inequality and Economic growth: the Perspective of the New Growth Theories." *Journal of Economic Literature*, 37:4, 1615-1660.
- Alderman, H, P.A. Chiappori, L.Haddad, J. Hoddinott, and R. Kanbur. 1995, "Unitary versus Collective Models of the Household: Is it Time to Shift the Burden of Proof?" *World Bank Research Observer* 10: 1-19.
- Alesina, Alberto, and Dani Rodrik. 1994. "Distributive Politics and Economic Growth." *Quarterly Journal of Economics*, 109:2, 465-490.
- Alesina, Alberto, and Roberto Perotti. 1996. "Income Distribution, Political Stability and Investment." *European Economic Review*, 40:6, 1203-1228.
- Anand, Sudhir, and Ravi Kanbur. 1993. "Inequality and Development: A Critique." *Journal of Development Economics* 41: 19-43.
- Appleton, Simon, and Paul Collier. 1995. "On Gender Targeting of Public Transfers." In Dominique van de Walle and Kimberley Nead, eds. *Public Spending and the Poor: Theory and Evidence*. Baltimore, MD.: The Johns Hopkins University Press.
- Arguello, Ricardo. 2001. "An Exploration of the Relationship Between Inequality and Economic Growth. Mimeo, Department of Applied Economics and Management, Cornell University.
- Atkinson, Anthony and Andrea Brandolini. 2001. "Promises and Pitfalls in the Use of Secondary data Sets: A Case Study of OECD Income Inequality, *Journal of Economic Literature*.
- Banerjee, Abhijit, and Esther Duflo. 2000. "Inequality and Growth: What can the Data Say?" Mimeo, MIT.
- Barro, Robert, J., and Jong-Wha Lee. 1994. "Sources of Economic Growth." *Carnegie-Rochester Conference on Public Policy* 40: 1-46.
- Basu, K. 2001. "Gender and Say: An Intrahousehold Model of Household Behavior." CAE Working Paper, Cornell University.
- Benhabib, Jess, and Aldo Rustichini. 1996. "Social Conflict, Growth and Income Distribution." *Journal of Economic Growth*, 1:1, 125-142.

Benhabib, Jess, and Mark Spiegel. 1994. "Role of Human Capital in Human development: Evidence from Aggregate Cross-Country Data." *Journal of Monetary Economics* 34 (October): 143-173..

Browning M and P.A. Chiappori. "Efficient Intra-Household Allocation: A General Characterization and Empirical Tests." *Econometrica*, 66: 6, 1998, 1241-78.

Buvinic, Mayra, and Geeta Rao Gupta. 1997. "Female Headed Households and female Maintained families: Are they Worth Targeting to Reduce Poverty in Developing Countries?" *Economic Development and Cultural Change* 45 (2): 259-280.

Dollar, David, and Roberta Gatti. 1999. "Gender Inequality, Income and Growth: Are Good Times Goof for Women?" World Bank, Washington D.C. www.worldbank.org/gender/prr/dg.pdf

Easterly, William. 2001. *The Elusive Quest for Growth*, Cambridge, MA: MIT Press.

Easterly, William. 2001a. "Inequality Does Cause Underdevelopment: New Evidence From Commodity Endowments, Middle Class Share, and Other Determinants of Per Capita Income." Mimeo, Center for Global Development—Institute for International Economics.

Filmer, Deon. 1999. "The Structure of Social Disparities in Education: Gender and Wealth." World Bank, Washington, D.C. www.worldbank.org/gender/prr/filmer.pdf

Forbes, Kristin. 2000. "A Reassessment of the Relationship Between Inequality and Growth." *American Economic Review* 90: 4, 869-887.

Foster, James, Joel Greer and Erik Thorbecke. 1984. "A Class of Decomposable Poverty Measures." *Econometrica* 52: 761-766.

Ghosh, Suman, and Ravi Kanbur. 2002. "Male Wages and Female Welfare: Private Markets, Public Goods and Intra-household Inequality." Mimeo, Cornell University.

Haddad, Lawrence, and John Hoddinott. 1994. "Women's Income and Boy-Girl Anthropometric Status in Cote D'Ivoire." *World Development*, 22 (4): 543-553.

Haddad, L, and R. Kanbur. 1990. "How serious is the neglect of Intra-household Inequality?" *Economic Journal* 100 (402): 866-881.

Haddad, L, and R. Kanbur. 1993. "The value of Intra-household survey data for age-based nutritional targeting." *Annales d'Economie et de Statistique* 29: 65-81.

Ilahi, Nadeem. 1999. "Gender and Allocation of Adult Time: What have we Learnt from the Empirical Literature?" World Bank, Washington D.C. www.worldbank.org/gender/prr/wp13.pdf

Jejeebhoy, Shireen, J. 1995. *Womens' Education, Autonomy, and Reproductive Behavior: Experience from Developing Countries*. New York: Oxford University Press.

Judson, Ruth. 1996. "Do Low Human Capital Coefficients Make Sense? A Puzzle and Some Answers." Board of Governors of the federal Reserve System. Finance and Economics Discussion Series 96-13, March.

Kanbur, Ravi. 1987. "Measurement and Alleviation of Poverty: With an Application to the Effects of Macroeconomic Adjustment." *I.M.F. Staff Papers* 36: 60-85.

Kanbur, Ravi. 2000. "Income Distribution and Development," In Anthony Atkinson and Francois Bourguignon, eds. *Handbook of Income Distribution: Volume I*, Amsterdam: Elsevier.

Kanbur, Ravi (Editor). 2001. "Qualitative and Quantitative Poverty Appraisal: Complementarities, Tensions and the Way Forward." Cornell University. www.people.cornell.edu/pages/sk145/papers/QQZ.pdf

Kanbur, Ravi. 2002. "Economics, Social Science and Development." *World Development*, forthcoming.

Kanbur, Ravi, and Lawrence Haddad. 1994. "Are Better off Households More Unequal or Less Unequal?" *Oxford Economic Papers*, 46: 445-458.

Kanbur, Ravi, and Nora Lustig. 2000. "Why is Inequality Back on the Agenda?" *Proceedings of the Annual World Bank Conference on Development Economics 1999*. World Bank, Washington, D.C.

Klasen, Stephan. 1999. Does Gender Inequality Reduce Growth and Development? Evidence from Cross-Country Regressions." World Bank, Washington, D.C. www.worldbank.org/gender/prr/klasen.pdf

Klenow, Peter, and Andres Rodriguez-Clare. 1997. "The Neoclassical Revival in Growth Economics: Has it Gone Too Far?" In Ben Bernanke and Julio Rotemberg, eds., *NBER Macroeconomics Annual 1997*. Cambridge, Mass.: MIT Press.

Knowles, Stephen, Paula K. Lorgelly and P. Dorian. 2002. "Are Educational Gender Gaps a Brake on Economic Development? Some Cross-Country Empirical Evidence." *Oxford Economic Papers*.

Lampietti, Julian A., and Linda Stalker. 2000. "Consumption Expenditure and Female Poverty: A Review of the Evidence." World Bank, Washington D.C. www.worldbank.org/gender/prr/wp11.pdf

- Li, Hongyi, Lyn Squire, and Heng-fu Zou. 1998. "Explaining International and Intertemporal Variations in Income Inequality." *Economic Journal*, 108: 26-43.
- Li, Hongyi, and Heng-fu Zou. 1998. "Income Inequality is not Harmful to Growth: Theory and Evidence." *Review of Development Economics*, 2: 318-334.
- Lundberg, Shelley, Robert A. Pollak, and Terence J. Wales. 1997. "Do Husbands and Wives Pool Their Resources? Evidence from the United Kingdom Child Benefit." *Journal of Human Resources*, 32 (3): 463-480.
- Manser, M and M. Brown. 1980. "Marriage and household decisionmaking: A bargaining analysis." *International Economic Review* 21 (1):31-44.
- Persson, Torsten and Guido Tabellini. 1994. "Is Inequality Harmful for Growth?" *American Economic Review*, 84:3, 600-621.
- Quisumbing, Agnes R., Lawrence Haddad, and Christine L. Pena. 2000. "Are Women Overrepresented Among the Poor? Poverty Measures and Dominance Analysis for Ten Developing Countries." Mimeo, International Food Policy Research Institute, Washington, D.C.
- Quisumbing, Agnes R., and John Maluccio. 1999. "Intrahousehold Allocation and Gender Relations: New Empirical Evidence." World Bank, Washington, D.C. www.worldbank.org/gender/prr/qm.pdf
- Pritchett, L. 1997. "Where has all the Education Gone?" World Bank Policy Research Working Paper, no. 1581.
- Ravallion, Martin, and K. Chao. 1989. "Targeted Policies for Poverty Alleviation Under Imperfect Information." *Journal of Policy Modeling*, 11: 213-224.
- Ravallion, Martin and Binayak Sen. 1994. "Impacts on Rural Poverty of Land-Based Targeting." *World Development* 22:823-838.
- Shorrocks, Anthony, F. 1984. "Inequality Decomposition by Population Subgroups." *Econometrica* 52: 1369-1385.
- Singh, I.J, L. Squire and J. Strauss. 1986. *Agriculture Household Models: Extensions, Applications and Policy*. Baltimore: Johns Hopkins University Press.
- Thomas, Duncan. 1997. "Incomes, Expenditures and Health Outcomes: Evidence on Intrahousehold Resource Allocation." In Lawrence Haddad, John Hoddinott and Harold Alderman, eds., *Intrahousehold Resource Allocation in Developing countries: Models, Methods and Policy*. Baltimore, MD.: The Johns Hopkins Press.

Tzannatos, Zafiris. 1999. "Women and Labor Market Changes: Growth Helps, Inequalities Hurt and Public Policy Matters." *World Development* 27 (3): 551-69.

World Bank. 2001. *Engendering Development Through Gender Equality in Rights, Resources, and Voice*. New York: Oxford University Press.