Culture values and economic growth

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CULTURE VALUES
AND ECONOMIC GROWTH

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Abstract

We integrate a general social norm function which associates status to accumulation of capital and consumption into a very simple model of endogenous growth. We show that societies which place a greater cultural weight on capital as opposed to consumption preferences will experience fast growth. Our results are consistent with those obtained by Baumol(1990) in the context of entrepreneurship and by Fershtman and Weiss (1991).

Key Words: Social incentives, social status, endogenous growth.

1.Introduction

It is becoming increasingly apparent that, in order to escape the fetters imposed by the narrowed neoclassical paradigm, the economics of growth and development must welcome, or at least accept, the input of related disciplines, be they, History, Sociology, Anthropology, or Political Sciences.[1]This is not an easy pill to shalow for those trained in the rigors of the current received wisdom, but to the growth theorist, it is necessary medecine. It is clear that much of the theorizing on growth is missing something important. And that something may be, venturing out on a limb, culture.

The view that cultural factors are an important determinant of economic performance is as old as the hills. One need only recall that many years ago , the dominant view regarding the origins of the Industrial Revolution was the so-called " Protestant work ethic, " as documented in the work of Tawney, Max Weber , and others.[2]But there has been a tendency in much theoretical work to ignore cultural factors as a determinant of growth performace. Fortunately, there are a number o frecent exceptions.

The recent literatue dealing with endogenous growth has shown, in a number of contexts, that the equilibrium growth rate of an economy

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[1] On the difficulties involved for development economists with associating with the other social sciences see the humouous but accurate account by Leijonhufvud (1973).
[2] The list goes on ans on, viz. Comte, Marx, Spencer, Taylor, morgan, Durkheim, etc

under command optimum is usually greater that that under decentralized competitive equilibrium, and this because of the externalities wichi lie at the base of the growth process, and which may be internalized by the governmet intervention. Recently, the literature has turned its attention towards socio-cultural attributes which mayprovide important clues in explaining differences in growth performance. Baumon(1990), for example, stresses the role of the social prestige associated with rent seeking as opposed to productive activities.Acemoglu (1993) considers the endogenisation o fremuneration structures in which the allocation of talent in the past affects the present structure of remuneration. He shows how this path dependance may lead to a low level of development trap. Cole, Mailath and Postlewaite (1993) construct a model in which social status is integrated into the marriage decision, thus affecting the accumulation of wealth. Fershtman and Weiss (1991) examine the impact of the demand of social status on growth , and show that an increase in the demand for the social status may reduce growth in the case of cultures which place greater weight on symbolic status than on productive status.

The upshot of this recent literature which seeks to incorporate socio-cultural elements into models of economic growth is that these issues may have an important role to play in determining growth in as much as they constitute mechanisms with important economic consequences, particularly with respect to saving behavior .The purpose of this paper is

to to introduce, a social incentive with respect to accumulation versus consumption into a simple model of economic growth.

2. The Model

Consider an economy characterized by perfect competition and a large number of identical agents who choose an intertemporal consumption profile which maximizes the following additively separable utility funtion:

$$U(0) = \int_0^{+\infty} u(c(t), A(k(t), c(t))) e^{-\rho t} dt \qquad (1)$$

where ρ is the discount rate, $c(t)$ is consumption in period t , and $A(k(t), c(t))$ represents her social standing, and where we assume that : $u_c > 0, u_A > 0$. An individual's social standing $A(.)$ is assumed to be a function of her accumulated capital as well as of her consumption. For simplicity in exposition, assume the following functional forms:

$$A(k(t), c(t)) = \left(S(k(t))^\gamma (c(t)) \right)^{1-\gamma} \qquad (2)$$

$$u(c(t), A(k(t), c(t))) = \alpha Log c(t) + \beta Log A(c(t), k(t)), \ \alpha + \beta = 1 \qquad (3)$$

Assume that the output is given by the following technology :

$$y = f(k(t)) \qquad , f' > 0, f'' < 0$$

Whence we can write the law of motion of capital accumulation as:

$$\dot{k}(t) = f(k(t)) - c(t) - \delta k(t) \tag{4}$$

where $\delta < 1$, is the depreciation rate. The individual's optimization problem can therefore be written as:

$$Max\ U(0) = \int_{0}^{+\infty} u(c(t), A(k(t), c(t))) e^{-\rho t} dt$$

s.t: $\hspace{10cm}$ (5)

$$\dot{k}(t) = f(k(t)) - c(t) - \delta k(t)$$

$$k(0) = k_{0} > 0$$

One can therefore present our first result as follows.

Proposition 1

Given the socio-cultural preferences the growth rate is :

$$g(\gamma) = \frac{\alpha + \beta(1 - \gamma)}{\alpha + \beta(1 - \gamma) - \beta\gamma\varepsilon(k(t))} (f'(k(t)) - \rho - \delta)$$

where $\varepsilon(k(t)) = \dfrac{S'(k(t))}{S(k(t))} k(t)$ is the elasticity of social status with respect to capital . "

Proof:

The within period utility function of the individual can be rewritten as :

$$u(c(t), A(k(t), c(t))) = \alpha Log c(t) + \beta Log A(c(t), k(t)) = (\alpha + \beta(1 - \gamma)) Log c(t) + \beta\gamma Log S(k(t))$$

while the law of motion of capital can be solved for consumption to yield :

$$c(t) = f(k(t)) - \dot{k}(t) - \delta k(t)$$

We can therefore transform the optimal control problem into a variational problem, which leads to the following Euler Equation:

$$f'(k(t)) = \rho + \frac{\dot{c}(t)}{c(t)} - \frac{\beta\gamma}{\alpha + \beta(1-\gamma)}\left(\frac{S'(k(t))}{S(k(t))}\right)\dot{k}(t) + \delta \tag{6}$$

Imposing the balanced growth cndition:

$$\frac{\dot{c}(t)}{c(t)} = \frac{\dot{k}(t)}{k(t)} = g$$

and denoting the elasticity of social standing with respect to capital as :

$$\varepsilon(k(t)) = \frac{S'(k(t))}{S(k(t))}k(t) > 0$$

allows one to rewrite the Euler equation as:

$$f'(k(t)) = \rho + \frac{\dot{c}(t)}{c(t)} - \frac{\beta\gamma}{\alpha + \beta(1-\gamma)}\left(\frac{S'(k(t))}{S(k(t))}\right)k(t)\frac{\dot{k}(t)}{k(t)} + \delta$$

whence, solving for g, we obtain :

$$g(\gamma) = \frac{\alpha + \beta(1-\gamma)}{\alpha + \beta(1-\gamma) - \beta\gamma\varepsilon(k(t))}(f'(k(t)) - \rho - \delta) \tag{Q.E.D}$$

Our main result is summarized by the following corollary:

Corollary 1

Societies with socio-cultural preference attaching greater weight to productive versus consumption status will display a higher growth rate :

$$g'(\gamma) > 0$$

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Proof:

By simple derivation:

$$g'(\gamma) = \frac{(\alpha + \beta)\beta\varepsilon(k(t))}{(\alpha + \beta(1-\gamma) - \beta\gamma\varepsilon(k(t)))^2}(f'(k(t)) - \rho - \delta) > 0 \qquad \text{(Q.E.D)}$$

3. Conclusion

In this paper, we have shown that social incentives which place more weight on capital accumulation than on consumption result, *ceteris paribus,* in a higher rate of growth through their effect on capital accumulation. Our results are broadly consistent with those of Baumol(1990) and Ferschtman and Weiss (1991), and they provide an illustration of how Karl Marx, Max Weber and R.H Tawney can be easily integrated into what is otherwise a standard growth model.

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