Do levels of income and personal well-being affect the individual returns of social capital?

by

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The notion of social capital has recently grown into a key input variable for a wide range of social science research ranging from sociology and political science to economics, management or even organisational theory (e.g. Putnam, 2000; Zak and Knack, 2001; Adler and Kwon, 2002; Bofata et al, 2016). Following in the footsteps of works such as Loury (1977) or Coleman (1988), social capital is increasingly regarded as predictor of economic success both on the individual as well as on the aggregate level (e.g. Putnam, 1993; Arrow and Borzekowski, 2004) and thus increasingly included in policy recommendations (Guagnano et al., 2016). Two main transmission channels have been identified directly impacting the individual: personal income and well-being.[1]

When linking social capital and personal income, only a few voices claim the two not to be significantly correlated (i.e. Wiig, 2003). The overwhelming majority of analyses find social capital to boost personal income and thus actually serve as 'capital'. Studies focusing on the developing (i.e. Grootaert, 1999; Narayan and Pritchett, 1999; Malucino, Haddad and May, 1999; Godoy et al., 2007) as well as on the developed world (i.e. Bjørnskov, 2008; Geepu Nah Tiepoh and Reimer, 2004; Groot et al, 2007) find social capital to considerably increase income. Grootaert (1999), for example, shows the impact of social capital on income in Indonesia to be twice as large as the impact of human capital. Narayan and Pritchett (1999) estimate a one standard deviation increase in social capital displayed by the community of a Tanzanian village to increase household income by at least 20 to 30 percent. Bjørnskov (2002) also observes the income generating effect of social capital when analysing a Danish dataset. In his view, social capital leads to sizeable income returns via additional gains of information and decreasing in transaction costs. Despite these seemingly consistent results, more and more voices have been raised however asking if there is a distinction along income lines. Does social capital boost income no matter if rich or poor? Does it discriminate between income levels?

[1] The words individual well-being, life satisfaction and happiness will be used as synonyms following the general happiness economics literature

Does it actually help the poor? “The distribution of social capital, like other forms of capital, could well be skewed in favour of the rich” Grootaert (1999:2).

Linking social capital to well-being, results are anything but clear-cut. Happiness economics has found individual well-being to be linked to micro- and macro-economic factors such as GDP, inflation or the level of inequality (Easterlin, 1995; DiTella et al. 2001; Alesina et al. 2004), the individual’s socio-demographic factors such as age, education, health, gender or political orientation (i.e. Gerdtham and Johannesson, 2001; Frey and Stutzer, 2002) and institutional factors as for example direct political participation rights (Frey and Stutzer, 2000). The interaction of happiness and social capital, however, has only received limited attention with its linkage remaining rather ambiguous. Some find social capital to be “the most robust correlate of subjective well-being” (Helliwell and Putnam, 2004: 1437) and show a clear positive relationship (i.e. Rodríguez-Pose and von Berlepsch, 2014), others only refer to social capital as indirect influence on happiness, transferring its effect via factors such as health, wealth or economic growth (i.e. Helliwell and Putnam, 2004; Zak and Knack, 2001; Rodrik, 1998). Again a third group of researchers find if any, only a very weak connection (i.e. Ram 2010).

The range of results can be associated to the vagueness of the definition and operationalisation of social capital. Proxies of social capital in past research include trust (i.e. Helliwell and Putnam, 2004; Bjørnskov, 2008; Helliwell and Wang, 2011), informal information channels (i.e. Lelkes, 2006; Bjørnskov, 2008; Helliwell and Barrington-Leigh, 2010), formal information channels, such as voluntary work, religious activities (i.e. Helliwell and Putnam, 2004; Hayo, 2004; Haller and Hadler, 2006), associational engagement (i.e. Olson, 1982; Putnam, 2000) and societal norms and sanctions (i.e. Leung et al., 2011; Rodríguez-Pose and von Berlepsch, 2014). The use of different proxies of social capital yields differents connections to well-being.

What if, however, the effect of social capital on happiness is affected by the income level of the individual? (Grootaert, 1999). Could it be that social capital increases happiness levels just for the rich, leaving out the poor? Does the specific position of the individual on the income distribution impact the effect that further voluntary work, more social interaction with friends or enhanced trust in the institutional surroundings has on individual happiness? Or – taking it one step further – could the impact of social capital on happiness depend on the initial position of the individual on the happiness scale? Does an unhappy person benefit differently from additional social capital than a happy person does?

This paper intends to answer these questions and therefore fill the gap in the literature. We explore whether the effect of social capital on personal income and individual well-being is dependent on the

individual's initial position on the income as well as happiness distribution. Our interest therefore does not lie on the average effect of the explanatory variable for the average individual, but on the entire conditional distribution of the dependent variable in in the first case (income-income, happiness-happiness) and on the entire conditional distribution of the explanatory variable in the second, the cross-wise case.

Following Koenker and Bassett (1978) and Buchinski (1998), we employ quantile regressions analysis in order to analyse the impact of social capital on personal income and well-being. This allows us to acquire a more nuance picture of the interrelationship between social capital, on the one hand, and income and happiness, on the other, than by simply resorting, as in the overwhelming majority of previous literature to average effects. Quantile regression results in coefficient estimates modelling the relation of various quantiles of the dependent variable to the set of explanatory variables (Koenker and Hallock, 2001). Hence, we allow for heterogeneity of individuals and consequentially for the variation of coefficients at different points on the conditional happiness or income distribution.

The second part of our analysis focuses on the crosswise conditional distributions of the explanatory variable (i.e. the impact of social capital on happiness depending on the initial level of personal income). In this case, as quantile regressions may only refer to the conditional distribution of the dependent variable, we resort to ordered logistic regression analysis, while simultaneously limiting each subsample to a certain level of the main explanatory variable of interest.

In order to measure these conditional effects, we employ data from the European Social Survey (ESS), pooling the third and fourth (2006-2008) and the sixth and seventh waves (2012-2014), respectively, in order to maximise observations and to build a representative dataset for the beginning years as well was the later years of the financial crisis. All rounds contain individual data for around 100,000 individuals living in over 30 mostly European countries.

When evaluating the impact of social capital on income, conditional on different income quantiles, quantile regression results reveal great differences in the impact of the various measures of social capital on income across the conditional distribution of income levels. While trust is highly positive and significantly linked to higher income levels no matter which income quantile in question, informal social interactions favour the rich, not the poor. In low income quantiles, the relationship between informal social interactions and income fails to return valid significance levels. Associational engagement on the other hand, is highly significant and positively connected to higher income especially in low and average income levels. For the very rich individuals however, additional associational activities seems not to lead to further monetary gain.

When considerinig the role of different well-being levels in the relationship between social capital and income, we find the income enhancing effect of social capital to be highly dependent on the initial happiness level. Especially for individuals in the low well-being groups, social capital seems to barely display any income increasing effect at all. Most of the social capital indicators fail to reach significance. First positive and significant linkages of social capital to income begin at an level of average happiness. The happier a person is, the more she seems to be able to gain from additional social capital in monetary terms. When displaying an average or below average well-being level, social capital for example defined as informal social interaction, however, fails to show any significant impact at all. Enlarging social networks seems therefore to only lead to significant income related changes for above average happy people.

Shifting our focus on how the impact of social capital on happiness differs conditional on initial income levels, it appears as if income would not matter for social capital to be positively related to individual well-being. All three social capital dimensions (with the exception of formal associational activity) show highly significant and mostly positive results with respect to happiness for all five income levels. Hence, regardless of the personal income level, additional social capital – regardless of the measure chosen – always serves as a positively influencing factor for individual life satisfaction.

Lastly, we evaluate the impact of social capital on happiness conditional on different happiness quantiles. Our findings indicate that the positive association between social capital and happiness decreases for most social capital indicators when moving up the happiness distribution. Additional social capital in dimensions such as trust in mankind, trust in institutions, a firm belief in consistent norms and sanctions or strong social networks are particularly beneficial for those individuals with low levels of well-being. Within the highest happiness levels, social capital – no matter which feature – loses its significance altogether.

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