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Building sustainability through greater happiness

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Abstract
The current unsustainable growth of the world economy is largely a consequence of the crisis of social capital experienced by much of the world's population. Declining social capital leads economies towards excessive growth, because people seek, in economic affluence, compensation for emotional distress and loss of resources caused by scarce social and affective relationships. To slow down economic growth requires an increase in social capital that is a fundamental contributor to happiness. From a wide range of possible approaches to increasing present happiness, this article suggests policies that would shift the economy to a more sustainable path. It focuses on a more *politically* sustainable set of proposals for a green 'new deal' than some of those currently under discussion.

JEL Codes: A13, D63, D90, E20, F01, I31, O10, O40

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Introduction

In recent years, climate variability has increased and extreme phenomena have intensified, helping increase the attention paid by the public in the West to warnings on global warming and other ecological crises. Documentaries and books on eco-friendly practices and lifestyles have gained popularity, as a growing number of people seem to realise that

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> Prudential regard for planetary health requires that the North accepts not only a slow-down in growth but an actual reduction in material standards of living, at least according to conventional measures. This would … set more realistic aspiration by the South … (Marglin, 2013: 151)

A ‘green new deal’ (FitzRoy et al., 2012) and a more sober lifestyle are increasingly perceived as necessities. In sum, the *cultural* influence of ecologism seems to be expanding in Western countries.

Nevertheless, its *political* influence seems to be stagnant. There is no global trend towards greater electoral success for political parties which prioritise environmental sustainability, and ecological issues have not gained higher priority in the agenda of traditional parties. In 2011, immediately after the Fukushima disaster, German polls indicated that the Green Party would receive about 27% of the votes. Yet, in the 2013 national elections, the party obtained only 8%. Most analysts agree that underlying this disappointing result was the Greens’ well-intentioned but dramatically unpopular proposal to legislate for a weekly Vegetarian Day in all public cafeterias.

This example is paradigmatic of the political difficulty encountered by attempts to shift towards a greener economy. When our planet’s limits are translated into constraints in our daily lives, they soon become politically unsustainable. The difficult problem lies in gathering a political consensus. How to solve this conflict between a growing ecological awareness and the rejection of attempts to build a more eco-friendly economy? Will achieving a green ‘new deal’ be possible only after a catastrophe?

This article explores politically feasible solutions to the environmental crisis. The next section, ‘Puzzling trends’, describes the declining happiness and social capital that have accompanied three celebrated recent cases of economic growth in rich and poor countries: the United States of America (USA), China and India. It argues that economic growth systematically tends to erode social capital, and that the coexistence of economic growth and social crisis challenges conventional economic wisdom. The section ‘Negative endogenous growth’ outlines an explanation of this paradoxical coexistence, using the negative endogenous growth (NEG) analysis to argue that economic growth can be fed by social crisis, and the section ‘Evidence’ provides empirical evidence supporting the NEG viewpoint. The section ‘Developing countries’ underlines the role of NEG processes in developing countries. The section ‘Do people care about future generations?’ discusses evidence regarding people’s time preferences and its implications. ‘Policy implications’ explores some policy implications of the argument, while the final section ‘Policies for social capital’ summarises concrete policies for building social capital.

Puzzling trends

The USA, China and India share some disquieting trends. Happiness (or subjective well-being) has been diminishing in the USA over the past three decades (Bartolini et al., 2013) and, since the 1990s, in China and India (Bartolini and Sarracino, 2014c, 2014d). The relevant time series end at the latest in 2007, and so are not affected by the global crisis that began in 2008. This evidence is puzzling for conventional economic wisdom. The Easterlin paradox (Easterlin, 1974) – showing that subjective measures of well-being do not increase with economic growth – has led some social scientists to suggest that the nexus between well-being and economic growth is not as robust as previously thought. Criticisms of gross domestic product (GDP) as an indicator of well-being have spread, even among economists. Many now accept that liberation from poverty may be a necessary but not sufficient requirement for happiness (e.g. Costanza et al., 2014).

China's and India's experiences of accelerated liberation from mass poverty make their declines in subjective well-being even more astonishing than America's. Since the early 1980s, more than half a billion people in China have been lifted out of absolute poverty (World Bank, 2014b). With GDP per capita growing by about 10% annually since the 1990s, living conditions for hundreds of millions have continued to significantly improve. Between 1990 and 2010, the percentage of the rural population with access to good quality water supply rose from 56% to 85%, and average annual growth of household final consumption expenditure was 6.5%.[1] Indian figures are similar, just slightly less triumphal. If there are two countries where economic growth should have played a significant role in people's well-being, they are China and India. Instead, between 1990 and 2007, average life satisfaction dropped substantially in both countries.

The coexistence of economic growth and declining social capital is challenging for conventional economic wisdom, which for the past 20 years has argued that social capital fosters growth, particularly through the abatement of transaction costs (Helliwell and Putnam, 1995; Knack and Keefer, 1997; Narayan and Pritchett, 1997; Putnam et al., 1993; Zak and Knack, 2001), with little recognition of the possible long-term coexistence of economic growth and declining social capital.

US growth rates of the past three decades – envied by most Western countries – have been paralleled not only by a decline in self-reported happiness but also by the significant spread of mental illnesses, especially anxiety and depression (Diener and Seligman, 2004; Twenge, 2000; Wilkinson and Pickett, 2009). As for social capital, US indicators over this time exhibit increases in communication difficulties, fear, a sense of isolation, mistrust, familial instability and generational cleavages, and decreases in solidarity, honesty, and social and civic participation (Bartolini et al., 2013; Paxton, 1999; Putnam, 2000). Similarly, in China and India, trust, associational activity and various measures of civic behaviour have declined (Bartolini and Sarracino, 2014c, 2014d).

Indeed, the coexistence of growth and declining social capital seems to be a global phenomenon. Bartolini and Sarracino (2014a), using time series of various time horizons from a large sample of countries, show that trends in social capital and economic growth are negatively related over time: the more vigorous a country's growth, the more likely the decline of its social capital. The causal analysis outlined in this study suggests that economic growth has a significant negative impact on social capital, depending on the speed of increase in income inequality. Growth appeared to erode social capital only in the one-third of countries experiencing the most rapid increases in inequality; in the rest of the sample, this relationship was not significant. This suggests that it may be rapid increases in income inequality that explain why growth tends to destroy social capital.

How to explain this scenario of increasing social poverty and economic abundance? Is there a relationship between social crisis and economic dynamism?

Negative endogenous growth

According to the NEG thesis, growth can be both the cause and the consequence of the decay of social and environmental assets. NEG models recognise not only the relevance for people's well-being of the negative externalities that growth processes – and the related expansion of the market sphere – bring about but also the important role that negative externalities may play in feeding GDP growth (Bartolini and Bonatti, 2002, 2003, 2008). In fact, the erosion of environmental and social assets caused by increased market activity limits the possibility of benefiting from them, thus inducing consumers and producers to search for substitutes in the marketplace. More generally, growth is conceived as a substitution process whereby market goods and services progressively replace declining non-market sources of well-being and compensate for the negative effects of the increased marketisation of society. This process can be described as a self-reinforcing loop: the externalities generated by the expansion of market activities stimulate households and producers to compensate for them by buying more goods and services, thus feeding this expansion. Consistent with this approach, GDP growth may 'go too far', in the sense that its acceleration may result in more detrimental effects on people's well-being than benefits.

The mechanism is based on the idea that money offers many forms of protection – real or illusory – from a poverty of social capital, in particular of interpersonal relationships. If the elderly are alone and ill, the solution is a care-giver. If our children are alone, the solution is a baby-sitter. If we have few friends and the city has become dangerous, we can spend our evenings at home, fulfilled by all kinds of home entertainment. If the frenzied environment of our cities distresses us, we can lift our spirits with a holiday in some tropical paradise. If we quarrel with someone, we can hire a lawyer to defend ourselves from his or her harassment. If we do not trust someone, we can pay to have him monitored. If we are afraid, we can protect our possessions with security systems. If we lack satisfying relationships, we can seek a form of identity or compensation through consumption, success or our work. Advertising reminds us that if we are afraid of failure, we can reassure ourselves through buying: 'I consume, therefore I am'. In advertising, products are perfect substitutes for love, although in the real world, they obstinately refuse to exhibit any emotion.

These private goods promise to protect us from the decay of resources that were once common and free: a liveable city, relatively free of crime, with more trust and communication among neighbours, a social fabric of neighbourhoods and companionship for children and the elderly. The advertising industry offers protection from our fears of exclusion in a world of difficult relationships, and the resulting expenditures force us to work and produce more, generating economic growth. When social ties break down, the economy of solitude and fear becomes a driving force of the economy.

The same argument applies to the quality of the environment. Vacations in unspoiled environments offer us the clean air, seas and rivers that we can no longer find in our unliveable cities (see Note 1). Economic growth generated by these social mechanisms can, in turn, fuel environmental decay, as Marglin and others have emphasised. I define NEG capitalism as that type of organisation which tends to produce this decay of social capital and environmental goods.

Thus, the traditional view of growth tells only the optimistic part of the story, according to which the luxury goods of one generation become the standard goods of the next generation, and these, in turn, become the basic needs of the successive one. The history of economic growth abounds with examples of this kind. But the obverse of this story is one of goods that are free for one generation, become scarce and costly for the next generation and luxury goods for the subsequent one. Goods, like clean natural environments or simply human curiosity, available for free (or almost so) to our grandparents and often to our parents, now have a cost.

Evidence

The strong association between social capital and reported well-being is documented by the evidence from micro-data on happiness (Becchetti et al., 2008; Bruni and Stanca, 2008; Helliwell, 2006; Helliwell and Putnam, 2004). Bartolini and Sarracino (2011) show, in a large sample of countries, that in the long run, average well-being is more likely to grow in countries where social capital grows than in countries where the economy grows. In China, India and the USA, the decline in average reported well-being is largely predicted by the decline in a range of measures of social capital. Thus, erosion of social capital (Putnam, 2000) may be an important component of the explanation of the US (Bartolini et al., 2013), Chinese (Bartolini and Sarracino, 2014d) and Indian (Bartolini and Sarracino, 2014c) versions of the Easterlin paradox. In all these countries, the other important explanation is the growing importance of social comparisons, exacerbated by a context of rapidly increasing income inequality. Despite their great differences, China, India and the USA share decreasing sociability and increasing income comparisons as main drivers of the decline in well-being. In turn, such drivers appear to be connected to an increasing orientation towards materialistic values.

The NEG view that the decline of social capital and the increase in working hours are connected by bi-directional causality is supported by empirical evidence. Bartolini and Bilancini (2011), using US survey data for 1972–2004, have shown that individuals with fewer and poorer relationships tend to work more. People seem to find, in money and work, compensation for the poverty of relationships in their lives. At the same time, those individuals who work more tend to have fewer and poorer relationships, because work takes away time and energy that could instead be allocated to relationships. The US may be the paradigmatic example of this mechanism in the light of three decades of declining social capital and increased working hours. US society may be trapped in a vicious circle, in which the poverty of social capital causes an increase in hours worked, which in turn causes a greater poverty of social capital.

The NEG approach can also shed light on some well-known US–European Union (EU) differences in trends between 1980 and 2000. In Western continental Europe, the economy grew less than in the USA and market work hours diminished, whereas in the USA they increased. If social capital trends really help explain these differences, then we should expect to find that these goods evolved more positively in Europe than in the United States. The same should be true for the happiness trend. In fact, this is exactly what happened. In general, social capital and happiness grew (weakly) in Europe (Sarracino, 2012). Interestingly, these US–Europe differences are mirrored by differences in trends in materialism, increasing in the USA and decreasing in Western Europe in the period 1980–2005 (Bartolini and Sarracino, 2013). NEG capitalism seems well rooted in the USA but less so in Europe. The inability of the US economy to generate happiness and leisure time, as well as its parallel capacity to generate environmental voracity and growth, means that growth may be a symptom of the disease of social capital.

Indeed, American growth in the past few decades has been boosted by expenses for the defense from the decline of social capital. Even entertainment has lost its social character, with the home entertainment sector experiencing an impressive boom. US expenditures on formal activities of social control and dispute resolution exhibited an explosively increasing trend during the last decades of the 20th Century. Putnam (2000) attributes such an explosion to the decline in social trust over that same period. Since the 1980s, spending on security rose rapidly as a share of US GDP, a trend reflected in a 40% increase in police and guards and a 150% increase in lawyers and judges over the levels that would have been projected in 1970 (Putnam, 2000: 146).

The growth of these sectors must be framed within the long-term expansion of the (private plus public) 'transaction cost sector' documented by Wallis and North (1986): 26.1% of US GDP in 1870 and 54% in 1970. This growth – paralleled by declines in peer monitoring and informal sanctioning provided by social capital – has further accelerated since the 1970s. According to Jayadev and Bowles (2006), the proportion of the US workforce employed as work supervisors and guards (police, corrections officials and security personnel) remained stable from 1948 to 1966 (about 10.8%) and then grew to 13.4% in 1979 and 17.9% in 2002. The astonishing increase in the US prison population, from 200,000 adults in 1973 to 2.2 million in 2009, has resulted in a 'historically unprecedented and internationally unique' incarceration rate of nearly 1% (National Research Council (NRC), 2014: 2).

Developing countries

Industrial revolutions probably offer the clearest examples of association between economic growth and massive social and environmental cleavages. Despite their variability across time and space, beginning with Britain's, they share regularities: rapid urbanisation, erosion of traditional institutions, environmental devastation, reduced farmers' access to land, massively increased labour market participation and increasing income inequality.

A long-standing tradition in development studies has identified the erosion of traditional institutions, environmental devastation and reduced access to land as 'push' factors. These factors force farmers to feed the ranks of the cheap urban labour force indispensable for rapid industrial take-off. In Polanyi's (1968) view, economic development is the effect and cause of the erosion of local communities, cultures and environmental resources, the decline of which releases the energies that fuel the growth process.

Rapid industrialisation is thus cause and consequence of shifts in patterns of production and consumption, from being largely based on common resources to market-based ones.

Despite being the first transition to capitalism managed by a communist party, China's is no exception. The diminished water flows and pollution of the Yellow River basin – a heartland of Chinese agriculture – resulting from industrial expansion are a contemporary version of the environmental devastations that accompanied Britain's Industrial Revolution. The expropriation of agricultural land for industrial purposes, provoking thousands of riots every year, has similar effects in boosting urban immigration to those of the British enclosures.[2]

China mirrors – on a Chinese scale – features typical of all industrial revolutions. The same applies to rapid changes in values in India, with urbanisation linked to the erosion of social capital in rural areas. Moreover, in China, urban immigrants (between 100 and 200 million, depending on the estimates) have lost most of the safety nets derived from communitarian relationships. Bartolini and Sarracino (2014d) document both the decline in social capital and the upsurge of materialism in China.

However, declining social capital is not an ineluctable consequence of economic growth. There are counter-examples in both the developing and developed worlds. Both well-being and social capital have grown in Western continental Europe since the 1980s (Sarracino, 2012) and Brazil since the 1990s (Bartolini and Sarracino, 2014a). Interestingly, both share trends very different from the upsurges of income inequality experienced in India, China and the USA. In Brazil, income inequality decreased, while in Europe it increased much more slowly than in the USA. An explanation is found in the literature emphasising the negative impact of high inequality on social capital (Alesina and La Ferrara, 2006; Bjørnskov, 2006; Costa and Kahn, 2003; Knack and Keefer, 1997).

Do people care about future generations?

In the environmentalist scenario, the conflict between private economic affluence and common poverty – at the core of the NEG approach – takes place in the long term. Current affluence imposes over-exploitation of local and global commons, threatening their sustainability and the living standards of future generations. This violates all plausible criteria of equity in intergenerational allocations of resources.

All streams of environmentalism converge on these claims. Yet, they diverge in answering the following question: who is responsible? The two answers provided are as follows: the people or the socio-economic system.

According to the first, the problem lies in people's time preferences. The threats posed by current resource degradations simply reflect the low importance attributed to the living standards of future generations by a humanity obsessed by its own conditions. This perspective amounts to stating that people have high rates of time preference or high discount rates (Bromley, 1998; Pearce et al., 1990). It locates the root of the sustainability problem in human nature, that is, in alleged inter-temporal greed. Such an explanation can be labelled 'naturalist': it rests entirely on the assumption that the behaviour of economic systems reflects the time preferences of individuals.

By contrast, the second answer – also widespread in environmentalist debates – attributes unsustainability to failures of economic, political, social or cultural organisation that prevent the economy from reflecting the time preferences of individuals. People's preferences for a more sustainable economy are thus thwarted by systemic failure. Some blame the media and science for distorted information,[3] and others blame market failures,[4] global corporations[5] or capitalism tout-court.[6] These explanations can be labelled 'institutionalist'.

NEG models share the institutionalist view by showing how the economic system can transform people's concern for the future in an unsustainable economy. In a world in which well-being depends on things that can be bought and also on things that nobody sells, only the former can be accumulated privately. Commons, by contrast, can only be accumulated collectively. In this situation, one's private strategy to protect one's descendants is to accumulate (and leave them) the only possible asset: private goods. However, this seeking of private wealth feeds growth and negative externalities, producing an unsustainable future. Thus, the greater the concern for future generations, the lower the confidence in collective action, and the worse will be the condition of future generations.

Increasing accumulation of private assets results in an unintentional worsening of environmental (and social) quality, producing a decline in well-being across generations. In this context, the dynamics of the economic system do not reflect the time preferences of individuals, because the system amplifies future risks the more individuals are concerned for future well-being.

As for collective action, in general, the economy becomes more important in people's lives, the lower their confidence in the capacity to solve those fundamental problems that can be solved only collectively. Sustainability is among those problems. Therefore, if individuals have low confidence in the effectiveness of collective action, they will consider sustainable behaviours to be futile and expensive. In this scenario, people adopt individual solutions to provide their descendants with the necessary tools to face future difficulties. Yet the aggregate result of such private defensive strategies is an increase in shared future difficulties. The perceived ineffectiveness of collective action generates a failure, among individuals of the same generation, to coordinate their actions. This leads to an over-exploitation of commons.

NEG models describe the inter-temporal choices of individuals who believe they live in a world where collective action does not work. NEG capitalism encourages people in rich economies to try to make more money instead of attempting to build a more liveable world, when that is what they really need. Thus, collective impotence fuels the race for money.

Since politics is the main form of collective action, this approach suggests that, in Western countries, trends of declining trust in political institutions – and the related loss of confidence in the ability of societies to prevent global and local ecological crises – may boost the accumulation of private assets, thus feeding unsustainable growth.[7] This declining trust may mirror a declining capacity of Western political systems to make decisions reflecting the interests of the majority of citizens. In defining contemporary political systems as 'post-democracies', political scientists suggest that the growing influence of economic elites in political decision-making has caused a regression to a pre-democratic situation, where exercise of political power is based on the prerogatives of closed elites (Crouch, 2004). Gilens and Page (2014) provide strong empirical support for this. Analysing hundreds of US policy issues, they conclude that a rich and powerful elite dominates the USA, while average citizens and mass-based interest groups have little or no influence.

Time preference is an empirical matter. The few estimates of people's preferences for the future provide no support to the view that people consider that damaging the future is a reasonable price to pay for current well-being. Bartolini and Sarracino (2014b) estimate the relationship between individuals' current well-being and their expectations about conditions for future generations. If people are scarcely concerned with the long term, their future expectations – whatever they are – should have a weak or null influence on their current well-being. However, if people have a strong preference for future well-being, their future expectations should strongly shape their current well-being. This study finds that expecting the worst (the best) for future generations has a very large negative (positive) impact on subjective well-being. It suggests that perceptions of future generations' living conditions are an important component of people's well-being. This supports the view that current problems of sustainability are due to a failure of socio-economic organisation to reflect people's time preference, and not to inter-temporal greed.

Policy implications

This article has presented the problems of sustainability and decreasing happiness as two sides of the same coin: the inability of the economic system to reflect people's preferences. Systematic coordination failures lead the economy to excessive growth, fed by the reactions of individuals to an economy that is more aggressive towards social and environmental assets than they would desire. The result is an excessive allocation of our time, attention and environmental resources to the market economic sphere of life.

The unprecedented increase in productivity created by capitalism can be allocated in a way that increases either output or leisure. Through most of modern Western history, it seemed reasonable to expect that a substantial portion of productivity gains would go to increasing leisure. For instance, Keynes (1930 [1963]) predicted that, by 2030, the average working week in Britain would amount to only 15 hours. However, especially in the last 30 years in the West, the bulk of productivity gains has been allocated to increasing output, not leisure. Economic growth has broken its promise of increased free time, as well as well-being.

According to NEG models, if allocations produced by economic systems reflected preferences, the growth rates of the economy would be lower in both developing and developed countries. In rich countries, the optimal growth rate is zero. In other words, the spontaneous tendency of an affluent economy is to allocate all productivity gains to increase leisure time. How plausible is this view?

Western societies are organised according to economic priorities. All possible means are used to boost the economy, beginning with children's education, since schooling is aimed at and shaped by the labour market. Powerful media stimulate consumption fantasies and spread the idea that having more money is the solution to most personal and social problems, while urban organisation is aimed at production and consumption. And yet, despite all this, average growth rates have diminished in Western countries in each decade since the 1950s. Such growth as remains has depended, in the past three decades, on the continuous creation of speculative bubbles.[8] The NEG approach suggests that the only reason why affluent economies continue to produce growth may be that they generate an ever-greater distress.

All in all, the real surprise is that economies so obsessively supported by social and cultural organisation grow so slowly. This suggests that the NEG scenario of affluent economies spontaneously tending to static output might be plausible if social organisations were shaped by new priorities of social capital and well-being.

Recently, a debate has emerged concerning 'secular stagnation' – long-term slow growth – that may involve developed economies (Teulings and Baldwin, 2014). This debate indicates that there may be a growing awareness among economists of a new era of low growth for rich countries. So far, however, the resulting policy prescriptions (ranging from not using monetary policy to avoid bubbles, to fostering labour market participation) unfortunately point to an even greater boosting of growth. In brief, the response to declining growth is to stimulate growth. While we are still struggling with the consequences of an enormous credit bubble, these reactions clearly indicate the difficulty of moving away from indefinite growth. Awareness that our future depends on a realistic project perspective for a post-growth society is still in its infancy, including among environmentalists.

Currently, one part of ecologism communicates the following message: there is a trade-off between present and future well-being. To protect the future, one has to have less in the present; sacrifices are needed. Consistent with this message, environmental policy proposals are largely based on the imposition of limits, such as to pollution, production, hours of work and types of food. In this way, ecologism does not propose an alternative to growth; it simply proposes giving up the growth project. This lack of a clear alternative creates difficulties in gathering a consensus.

Eco-friendly reforms presented as sacrifices appear expensive and burdened by a great uncertainty in both results and the timing of the risks they seek to avoid. Thus, the appeal of reforms rests on uncertain perceptions of the proximity and dimensions of a possible catastrophe. This uncertainty continually raises doubts that now is the right time for a green 'new deal'. Given current socio-economic problems, we wonder whether we can postpone costly changes.

The political message of environmentalism in rich countries should be 'a better present creates a better future'. We do not need to have less, but more of what we really need: more time and more quality of relationships, of the environment and of life. What is needed is not reductions in our standards of living but a change in our patterns of consumption and production, currently excessively centred on private goods. This suggests a more politically sustainable perspective for protecting the environment. If change is aimed at improvement and not at sacrifices made in the name of uncertain and possibly remote risks, it is much easier to gain public support and acceptance of limits. In any case, the policies that I propose are not based primarily on imposing limits but on actively constructing social capital.

An objection generally raised to any project for reducing consumption is that it would increase unemployment. This is valid only if the decrease in consumption influences labour demand but not its supply. In fact, a world of people who want to consume a lot is one where people have to work a lot to pay for consumption. This is why the choice to favour consumption as the means to alleviate unemployment does not work. While consumerism increases the number of jobs, it also increases the need for people to work. It thus negatively affects unemployment by increasing labour supply. We need to stop this vicious cycle of 'spend more – work more'. The method is, on one hand, to reverse the social decay that forces us to spend as a defence against it and, on the other, to create a culture that allows us to overcome the illusion that buying is the solution to most of our problems.

So, a possible remedy for unemployment is to organise a society where there is less need to work. We need to shift from an economy based on the promotion of market needs to an economy based on their containment and the promotion of non-market needs. The goal is to support lives that are worth living with less, and not more, money.

Policies for social capital

High-income inequality negatively affects well-being, exacerbating income comparisons and damaging social capital. Policies aimed at reducing inequality enhance well-being by reducing social comparisons and fostering social capital. Other examples of policies for social capital involve urban life, working life, advertising and health care.

We begin with urban policies. Cities, since they first existed, have had relationality at the centre of their organisation. Crucial for creating relations was the common space, symbolised by the city square, where citizens of all ranks could meet. Cities were built for people; all streets were pedestrian. Then, the advent of automobiles transformed human environments into places dangerous for humans. Cars have invaded common urban spaces with the disastrous effect of destroying the social fabric. Modern cities are good examples of NEG processes; they are powerful destroyers of environmental and social assets and, precisely for this reason, powerful producers of economic growth. In modern cities, things of quality (beautiful homes, smart nightspots, enticing shops, entertaining shows) are private and costly, whereas common and free things – the social climate of the streets and squares, noisy, polluted and dangerous because of traffic – are degraded.

My proposal is to transform contemporary 'economic' cities into 'relational' cities (see Montgomery, 2013; Peñalosa, 2008; Rogers et al., 2010) based on a reorganisation of space and mobility. The key elements are the following. Private cars must be drastically restricted as a structural measure in order to encourage all residents to use public transport. There must be a great number of squares, parks, quality pedestrian areas, sports centres and so forth. Ideal pedestrian areas are near water: seas, lakes, rivers, streams and canals. These areas must criss-cross a city to form a pedestrian and cycling network. There must be as many wide footpaths and bicycle paths as possible. Cities must be surrounded by wide swaths of publicly owned land on which parks and housing can be built.

As for work, research shows that satisfaction with our job is a fundamental component of life satisfaction. Job satisfaction depends heavily on the quality of the relationships we experience at work, and this, in turn, is strongly influenced by the organisation of work. Over the past 30 years, the tendency has been to utterly neglect these aspects, resulting in increases in stress, incentives, competition, pressure, conflicts and controls. This tendency does not produce either better relationships or happier or more productive workers. In fact, many studies document a strong relationship between productivity and worker well-being. Workers who are more satisfied are more (not less) productive; they make fewer mistakes, are more punctual and cooperative, and more effective as problem-solvers (Deluga and Mason, 2000; Diener and Seligman, 2004; George, 1995; Judge et al., 2001). In short, unhappy people work poorly. It is therefore possible to combine well-being and productivity by focusing on organisational models largely based on non-monetary motivations and facilitating compatibilities between work and non-working life. Work should become more interesting and less stressful, be perceived as having a purpose and as a means for building relations and social contacts.

Advertising has a profoundly negative influence on people's well-being, outlook and relationships. This influence is greater in children than in adults (Schor, 2005). The amount of advertising to which we are exposed should be drastically reduced, especially that targeting children. A high tax on advertising and a ban on television ads targeting children should be seriously considered.

Finally, I make suggestions on health care and schooling. Schooling is narrowly focused on the development of cognitive capacities. It should be radically rethought in order to provide emotional and relational education, which it currently discourages (Diener and Seligman, 2004; Marks and Shah, 2004). As for health, studies show that happiness heavily affects health and longevity (Diener and Chan, 2011). Thus, healthcare systems are the end stations of distress. Unhappiness tends to turn into health problems, creating pressure on healthcare systems, whose costs grow increasingly unsustainable in the West. We may spend too much on health care, when we could obtain better results through policies aimed at increasing well-being. Furthermore, while the quality of relationship between patient and medical personnel is critical to therapeutic effectiveness, there is a gap between the importance of these relational aspects and their current priority in medical education and in the organisation of health care.

In conclusion, overcoming post-democracy and reversing current trends of declining trust in political decisions are crucial to any project for sustainability. An appropriate combination of public financing of political parties, of regulating their access to the media and of stringent limits to their spending could limit their present dependence on financing from big business (Crouch, 2004).

The above policy proposals are mainly addressed to developed countries. Space precludes discussion of policies for fostering social capital in developing countries. One such initiative, implemented by the mayor of Bogotà at the beginning of this millennium, shows that a relational city project can be implemented even in developing countries (Peñalosa, 2008). Such projects are indeed even more vital for developing countries, since their cities are quickly expanding and the way they are constructed will influence well-being for many generations. Moreover, the success of the Cuban model of health care – with the same results in longevity and infant mortality as US health care which costs 96% more than Cuba's – is largely based on a relational idea of medicine and may be an interesting example for developing countries (Cooper et al., 2006; Dresang et al., 2005; Fitz, 2012). In general, there is no trace in the studies quoted here that social capital is a luxury good that only rich countries can afford. Social needs are also crucial to the well-being of people in developing countries.

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Notes

1. Other environmental examples include double glazing as a defence against noise, the use of mineral water as a substitute for tap water and the purchase of a swimming pool as a response to the deterioration of the local swimming water. Expenditures for pollution abatement or prevention, for the treatment of illnesses caused by pollution, for soil restoration, for global warming mitigation (as investment in energy saving, green transport and conservation agriculture) and for emergencies and reconstruction after extreme climate events are a direct response to environmental degradation.
2. Since the early 1990s, China faced a proliferation of ‘mass incidents’ (cases of civil unrest officially recorded) that rose from under 9000 in 1993 to 180,000 in 2010. A substantial share of such incidents is due to protests against the expropriation of agricultural land (Knight, 2013).
3. Some scientists or scientific institutions have been accused of producing reports that intentionally distort the evidence for economic interests. One of these examples is the Heartland Institute of Chicago, a conservative think tank claiming that global warming does not have human causes, has limited dimensions and presents benefits beyond costs. (http://climatechangereconsidered.org/). Another example concerns the American Enterprise Institute, an ExxonMobil-funded think tank, that offered rewards to scientific articles emphasising the shortcomings of a report from the United Nations’ (UN) Intergovernmental Panel on Climate Change (IPCC) that urged governments to adopt policies against global warming.
4. Definition given by Nicholas Stern (2007)
5. According to this view, the multinational corporations are responsible for producing environmental threats ranging from the oversized role of fossil fuel in the energy supply, to the adoption of genetically modified organisms (GMOs), to the promotion of consumerism (see, for instance, Latouche, 2009; Shiva, 2013). These positions are supported, for example, by the antiglobalisation movements that fiercely accuse the global corporate capitalism of multinationals (Bové and Dufour, 2005).
6. See, for example, Naomi Klein (2011).
7. There has been a sharply declining trend in confidence towards political institutions in the US since the 1960s (Bartolini et al., 2013; Lipset and Schneider, 1983; Putnam, 2000). The trend has been similar in Western Europe (Sarracino, 2012) and Australia (Papdakis, 1999).
8. See, for instance, Turner (2014).

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