Trust me, you will be in better health

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ARTICLE INFO

ABSTRACT

Along the pathway traced by few recent contribution that attempt to identify the causal effect of social capital on health, this paper analyzes whether individual social capital reduces the probability of experiencing 11 long-lasting and chronic diseases. The empirical problems related to reverse causation and unobserved heterogeneity are addressed by means of a procedure that exploits the within-individual variation between the timings of first occurrence of the 11 diseases considered. Estimates indicate that the probability of occurrence is on average 14–18 percent lower among individuals reporting to "trust most of the other people". This result is robust to two alternative specifications as well as the inclusion or omission of individual controls.

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1. Introduction

Among the socio-economic determinants of health, a growing attention is being devoted to the role of social capital. Many analysis have found a strong positive association between social capital and individual health (see [1], for an extensive review) and the discussion about the pathways of this relationship is mounting [2].

Health economics and public health literature suggest several potential pathways for the influence of social capital on health. First, social capital may expand the informational resources available to individuals, allowing a faster and more intense circulation of health relevant information [3]. Second, social capital favors the formation of informal networks and safety nets which provide mutual insurance to its members in case of health shocks [4]. Third, social capital may increase the political weight of a community making easier to obtain more and better public goods and social welfare programs [5]. Fourth, social capital, by increasing the quality and the utility of future life, could discourage unhealthy behaviors, such as smoking, drinking or mis-nutrition [6]. All pathways are justified and motivated by the fundamental characteristic of social capital of favoring cooperation within communities.

This paper investigates whether social capital benefits individual health, by exploiting rather detailed information about individual health condition and individual social capital included in the British Household Panel Survey between 1999 and 2008. For the first time, this paper investigates the influence of social capital on the likelihood of specific diseases rather than on self-reported general health (or analogous indicators) making possible to tell apart whether social capital does influence "true" health or just the way individuals assess and report their "true" health [7–10]. Indeed, self-reported health has been shown to be sensitive to changes in objective health conditions, such as the occurrence of a disease or the emergence of new symptoms, but to reflect also the individual prior (*self-concept*) on own health [7]. In particular, social factors could alter the way individuals assess and report their own health status [11].

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The empirical identification of the effect of social capital on health is problematic, because social capital is likely endogenous [12]. Building over few recent contribution that have attempted to identify the causal effect of social capital beyond simple associations, this paper innovates because it addresses two empirical problems, reverse causation and unobserved heterogeneity, by following an empirical strategy previously overlooked, inspired to duration analysis but quite specific. Reverse causation refers to the circular relationship likely to exist between social capital and health: indeed, not only social capital influences health but also the vice versa can be true. Unobserved heterogeneity, refers to the probable omission from the model of relevant and often unobservable characteristics, which can influence both social capital and health, such as individual preferences and attitudes. Both problems are responsible for unpredictable bias in the estimates obtained by simple regression models.

The identification strategy exploits within-individual variation in the timing of occurrence of 11 long-lasting and chronic diseases, both physical and mental.[1] The occurrence of each disease and the level of social capital reported before this occurrence form a *switching point.* Data are rearranged to obtain 11 switching points, one for each diseases, for all individuals. The empirical analysis is then conducted on the resulting dataset of switching points. As social capital is pre-determined at any switching point by construction, possible feedbacks from health conditions to social capital are ruled out. Moreover, since diseases occur at different times, the level of individual social capital varies within-individual across switching points. This variation allows to control for any time-invariant individual heterogeneity, such as preferences, family background and inherited culture by means of a standard individual fixed effect estimator. The effect of time-varying shocks is directly accounted for by a number of individual controls.

Results indicate that individuals rich of social capital, are on average 14–18 percent less likely to experience a disease, compared to individuals poor of social capital. This result is robust to two alternative specifications as well as the inclusion or omission of individual socio-economic controls.

The remaining of the paper is organized as follows: the definition of social capital adopted in this paper is justified in Section 2; the relevant literature is reviewed in Section 3; data are briefly described in Section 4; the identification strategy is discussed in detail in Section 5; results are reported in Section 6 and finally Section 7 concludes.

2. Definition of social capital

The concept of social capital has gained wide acceptance in social sciences and, more recently, in economics, where it has been used to explain economic growth [13], size of firms [14], institution's design and performance [15], financial development [16,17], crime [18], the power of the family [19], innovation [20], and the spread of secondary education [21].

The term social capital is often traced back to the work of the sociologist Bourdieu [22], but it gained popularity in the Nineties, mostly owing to Coleman [23] and Putnam et al. [24]. Though largely used, the concept is contested at both conceptual and measurement levels. On the one hand, social capital has been conceptualized as a group attribute, i.e. as a property of the organization or the community, as opposed to a characteristic of the individual members.[2] On the other hand, the so-called "network school" defines social capital as both an individual attribute and a property of the social network.[3]

Social capital has generally been considered as a multi-faceted object and consequently the precise boundaries of the concept are still disputed. Quite differently from this tradition, Guiso et al. [25,26] have recently proposed a more clear-cut definition. They convincingly define social capital as an individual *belief* about others' willingness to cooperate. When defined in this way, social capital can be properly considered a form of capital, that can be accumulated, transferred and which returns accrue to its owner (in so doing answering to the well known Solow's critique–[27]). Indeed, beliefs are individual and vary across people, they can be updated as far as new information is acquired by means of social interactions (accumulation or de-cumulation of social capital) and can be transmitted from parents to children (transfer of social capital). Moreover, beliefs are probabilities and thus they have a well defined and undisputed metric. Last but not least, defining social capital as a belief avoids the often arising confusion between social capital and some of its outcomes such as the quantity/quality of social relations, or involvement in social organizations, and makes social capital clearly distinct from human capital because its returns are contingent on the norms and beliefs of other community members.[4]

Rather than giving a proper account of the quite long list of social capital definitions appeared in the literature and pursuing an ecumenical approach trying to reconcile the multiple aspects of social capital, this paper grounds exclusively on Guiso et al.'s [25,26] definition and adopts the indicator (available in BHPS data) that most closely fits with this definition, i.e. generalized trust.[5] This approach has the advantage of simplifying the analysis and the interpretation of the results, since the object of interest is much more focused. Of course, the cost is that of losing results' richness and variety compared to an analysis dealing with a multi-faceted concept.

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[1] In duration analysis this would be the timing of transition from one state to another.

[2] Examples are social norms, sanctions, values and traditions that display their effects regardless of individuals' adhesion [53].

[3] Examples are social support, information channels, social credentials, trust [54].

[4] Taking one of the usual distinctions proposed in the literature, this definition considers social capital as a cognitive object (rather than structural).

[5] Generalized trust is defined over the answer that individuals provide to questions of the kind "Generally speaking, would you say that most people can be trusted?" alike to that originally included in the Value Social Survey. Thus generalized trust is an individual belief about the likelihood that other people are cooperative or instead adopt opportunistic behaviors.