

# Is Social Capital a Good Concept?

Christian Bjørnskov · Kim Mannemar Sønderskov

Accepted: 6 November 2012 / Published online: 11 November 2012  
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**Abstract** This paper explores whether the concept of social capital as popularized by Robert Putnam is a good social science concept. Taking Gerring’s work on concept evaluation as the starting point, the paper first presents a set of criteria for conceptual ‘goodness’ and discusses how social capital performs on these criteria. It is argued that social capital eventually may be a good concept if it can be shown empirically to be a unidimensional concept. An empirical section therefore explores the validity of the unidimensionality assumption and rejects it in four separate tests at both the individual and aggregate level. We conclude that even if social capital has been a remarkably productive idea, it is not a good concept as most popular conceptualizations define social capital as several distinct phenomena or as phenomena that already have been conceptualized under other labels.

**Keywords** Social capital · Principal components analysis · Concept formation

## 1 Introduction

Human relations are important—otherwise there would be neither society nor social science. This rather obvious insight has gained its way back into mainstream social science in recent years under the heading of ‘social capital’, a term coined a century ago by the American novelist Henry James in his 1904 novel *The Golden Bowl* but only used more recently by Pierre Bourdieu (1986), James Coleman (1988) and not least Robert Putnam (1993). The concept of social capital, defined by Putnam (1993, p. 167) as “features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions”, has made its mark on such diverse areas as

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C. Bjørnskov  
Department of Economics and Business, Aarhus University, Fuglsangs Allé 4,  
8210 Aarhus V, Denmark

K. M. Sønderskov (✉)  
Department of Political Science and Government, Aarhus University, Bartholins Allé 7,  
8000 Aarhus C, Denmark  
e-mail: ks@ps.au.dk

growth empirics, political governance research, immigration studies, the sociology of education, labor economics and happiness studies (Whiteley 2000; Zak and Knack 2001; Knack 2002; Portes 1998, 2000; Kramarz and Thesmar 2006; Bjørnskov 2003, 2008; Helliwell 2003; Helliwell and Putnam 1995).

The use of the term social capital is now common to the social sciences as a whole and, it is well-nigh impossible to place it as belonging to sociology, political science, economics or any other specific discipline. This has probably contributed much to the confusion surrounding the concept, but it has also opened up new scope for interdisciplinary cooperation and exchange, and, consequently, led to new insights on numerous topics.

Thus, in a very real sense, social capital has been a highly productive and is—in a “the proof of the pudding is in the eating”-sense—a successful concept. While some of the early results in the literature have been discarded by more thorough research, other findings, not least the effects on economic growth rates, have proved to be robust and highly important (cf. Knack and Keefer 1997; Whiteley 2000; Beugelsdijk et al. 2004; Berggren et al. 2008). However, the way social capital is conceptualized and operationalized varies considerably in the literature with the consequence that studies are often incommensurable. In other words, social capital has come to mean so many different things to different researchers that it may border on the meaningless.

Consequently, the concept has been criticized in more recent years. Fine (2001, p. 105) for example considers that given that social capital “is context-dependent—and context is highly variable by how, when and whom, then any conclusion [reached by empirical studies] are themselves illegitimate as the basis for generalization to other circumstances”. On a practical level, a series of studies have challenged some of the assumptions underlying the current conceptualization and empirical use of social capital, arguing for the use of several separate concepts instead of one unifying concept as in most of the existing studies (Bjørnskov 2006; Knack 2002; Paxton 1999; Uslaner 2002).

As such, researchers in the social sciences find themselves in the paradoxical situation that the core and central assumptions of a popular and much used concept are being repeatedly challenged. This is a most pertinent problem as Gerring (1999, p. 364) stresses that “Concepts are the hand-maidens of theories, and consequently may be judged only as good as the theories they serve [...and...] a concept’s utility in facilitation theory formation is influenced by the degree to which it can be differentiated from neighboring concepts.” The aim of this paper is therefore to explore the question whether social capital is, in this specific sense and in its most popular ‘Putnamian’ manifestation, a ‘good’ concept in the social sciences. To provide a systematic and thorough evaluation, we use Gerring’s (1999) concept evaluation framework. We conclude that even if social capital has been a remarkably productive idea, it is not a good concept as most conceptualizations define social capital as several distinct phenomena or as phenomena that already have been conceptualized under other labels.

The rest of the paper is structured as follows. Section 2 discusses the requirements for judging a concept in the social sciences as good. Section 3 evaluates how well three different conceptualizations of social capital meet these requirements. Based on this evaluation, Section 4 provides an analysis of the empirical underpinnings of the concept. Section 5 concludes by discussing the future of social capital research.

## 2 Necessary Requirements for Good Concepts

No paper evaluating the merits of a concept can do without a definition of what such merits might be and how they can be evaluated. While this is obviously a difficult topic, a long

string of studies in the social sciences has dealt with the question of what a good concept is, and in particular how it evolves within the relevant science. The relevant questions to ask include: is the concept unique and useful? Does it help to explain real-world phenomena? Is it logically consistent and internally coherent? For any proper concept, not all of these questions can be answered equally positively, but at least some balance is necessary if a social science concept is to be evaluated as a good concept, or at least of enough value to merit continued scientific interest.

Drawing on the insights of Sartori's (1970) seminal work, Adcock and Collier (2001) outline four basic elements of the evolution from background concepts to quantitative scoring of cases, and back, that are required in the development of any ideally proper concept in the social sciences. Their ideal approach to a continual development of concepts in the social sciences implies a positive view of scientific progress by resting on the forward and backward feedback between four main elements. As such, this type of evaluation comes close to assessing whether, within the framework of Lakatos (1977), the concept outlines a research program with a 'positive heuristic' or if a protective belt of ad hoc theorizing surrounds the core of the concept. In particular, Lakatos (1977, p. 68) warns that a Kuhnian paradigm (Kuhn 1962) can degenerate through ad hoc protection "to become a *Weltanschauung*, or a sort of *scientific rigour*, setting itself up as an arbiter between explanation and non-explanation". The criteria for good concepts are quite exacting, when assessed according to Adcock and Collier's outline, and given the frequency with which ad hoc theories are applied in the social sciences, perhaps too exacting. Gerring (1999) adopts a more pragmatic approach to answering whether a social science concept is good or not, which we use in the following.

Gerring sets up eight criteria for conceptual goodness: (1) Familiarity; (2) Resonance; (3) Parsimony; (4) Coherence; (5) Differentiation; (6) Depth; (7) Theoretical Utility; and (8) Field Utility. Although Gerring (2001, 2012) in later work employs somewhat different labels, the content remains essentially the same and we therefore opt for using the better-known original labels. An ideal concept will obviously satisfy all criteria while a 'good' concept can be defined as a concept that achieves a reasonable balance between satisfying or approaching most of the criteria. Gerring's approach is pragmatic as some trade-offs between the criteria are unavoidable in most cases. On the other hand, the framework does not lead to an 'anything goes situation' as some criteria (e.g. Coherence) are more important than others (e.g. Resonance) and because complete failure to meet one or more criteria implies very low concept quality or validity (Gerring 1999, p. 367). By focusing on criteria that not all need to be perfectly met instead of specific rules that may not apply to all situations, Gerring's framework is arguably more suited than the alternatives to evaluate the practice of social science concepts. In the following, we describe each of Gerring's criteria along with a discussion of social capital's performance on these criteria.

### 3 Is Social Capital a Good Social Science Concept?

Since social capital was introduced to the social sciences by Bourdieu, Coleman and Putnam, respectively, numerous refined conceptualizations have emerged from these original concepts. Table 1 lists a few of the accompanying definitions from these reconceptualizations and clearly illustrates the definitional diversity within the social capital literature. This makes a systematic evaluation of the concept a challenging task. Therefore, we rely on the distinction in Portes (2000) and restrict our evaluation to Putnamian conceptualizations (which arguably have been the most popular conceptualizations). Social

**Table 1** Definitions of social capital

Study	Definition
Coleman (1988, p. S95)	“obligations and expectations, information channels, and social norms”
Coleman (1990, p. 304)	“social organization constitutes social capital, facilitating the achievement of goals that could not be achieved in its absence or could only be achieved at a higher cost”
Putnam (1993, p. 167)	“features of social organization, such as trust, norms and networks that can improve the efficiency of society”
Fukuyama (1997, pp. 378–379)	“the existence of a certain set of informal rules or norms shared among members of a group that permits co-operation among them. The sharing of values and norms does not on itself produce social capital, because the norms may be wrong ones [...] The norms that produce social capital[...] must substantively include virtues like trust telling, the meeting of obligations and reciprocity”
Knack and Keefer (1997, p. 1251)	“Trust, co-operative norms, and associations within groups”
Narayan and Pritchett (1999, p. 872)	“the quantity and quality of associational life and the related social norms”
Putnam (2000, p. 19)	“connections among individuals—social networks and norms of reciprocity and trustworthiness that arise from them”
Ostrom (2000, p. 176)	“the shared knowledge, understandings, norms, rules and expectations about patterns of interactions that groups of individuals bring to a recurrent activity”
Paldam (2000, p. 635)	Three families: (1) “the ability of [an individual] to work voluntarily together with others of [a population 9]”; (2) “the quantity of trust [an individual] has in other members of [a population]”; (3) “the amount of benefits the individual can draw on his goodwill”
Whiteley (2000, p. 450)	“the willingness of citizens to trust others including members of their own family, fellow citizens, and people in general”
Woolcock (2001, p. 13)	“the norms and networks that facilitate collective action [...] it is important that any definition of social capital focus on the sources rather than consequences [...] this approach eliminates an entity such as ‘trust’ from the definition of social capital”
Lin (2001, pp. 24–25)	“resources embedded in social networks and accessed and used by actors for actions. Thus the concept has two important components: (1) it represents resources embedded in social relations rather than individuals, and (2) access and use of such resources reside with the actors”
Bowles and Gintis (2002, p. 2)	“trust, concern for one’s associates, a willingness to live by the norms of one’s community and to punish those who do not”
Knack (2002, p. 42)	“common values, norms, informal networks, and associational memberships that affect the ability of individuals to work together to achieve common goals”
Sobel (2002, p. 139)	“circumstances in which individuals can use membership in groups and networks to achieve secure benefits”
Durlauf and Fafchamps (2004, p. 5)	A feature that “generates positive externalities for member of a group [...] that are achieved through share trust, norms and values and their consequent effects on expectations and behavior [...] shared trust, norms and values arise from informal forms of organizations based on social networks and associations”
World Bank (2005)	“norms and networks that enable collective action”
Groot et al. (2006, p. 1)	“Social capital includes all factors that foster social relations and social cohesion”

Adapted from Knowles (2006). See Sønderskov (2009) for a list of additional definitions

**Table 2** Conceptualizations of social capital

	Width	
	2+ components	1 component
Functionalist		
Yes	E.g. Putnam (1993)	
No	E.g. Putnam (2000)	E.g. Whiteley (2000)

See Table 1 for definitions

capital, in Putnam's version, is a societal resource which has direct consequences for a large set of people. Conversely, in Coleman's and especially Bourdieu's version, social capital is a personal resource, which only indirectly has societal effects (for example by reproducing the existing social order).

Even when focusing on Putnam's version of the concept, several different conceptualizations still exist and the conceptual goodness may very well vary between these. Therefore, we distinguish between three to four types of Putnamian definitions that vary on two dimensions. On the first dimension, we follow another distinction in Portes (2000) and differentiate between functionalist definitions and definitions that do not define social capital by its effects. Putnam's original definition from 1993 is a clear example of a functionalist definition (see Table 1) as, according to this definition, social capital is every aspect of social organizations that improves the efficiency of society (see also, for example, the last two definitions in Table 1). Putnam's later definition in *Bowling Alone* (2000) does not have this functionalist trait; here social capital is solely defined by its contents. As a second distinction, we differentiate between the widths of the conceptualizations. Wide concepts include more than one component in the definition (most often trust, norms *and* networks) contrary to narrow concepts where social capital consists of a single phenomenon (most often trust, norms, *or* networks). While Putnam's original definition as well as e.g. Groot et al. (2006) are extreme versions of the wide definition—these definitions define social capital as every aspect of social organization that has a certain effect, others restrict social capital to certain aspects of social organization (e.g. Knack and Keefer 1997). These aspects are most often social trust, social norms, and/or social networks. Table 2 lists a few examples of studies that vary on this dimension and shows the four possible types of conceptualizations. However, no conceptualization has yet employed the narrow functionalist definition to our knowledge, which leaves three types of definitions to be discussed.

Gerring's first three criteria, *familiarity*, *resonance*, and *parsimony* can be said to affect whether or not a new concept will become popular, and whether or not the concept will be used by other scholars because it is clear and easy to use. We will therefore only evaluate Putnam's first conceptualization (the wide functionalist type) on these criteria, although the conclusions also apply to the other conceptualizations that share some or all of its elements.

The first criterion, *familiarity*, is about whether or not the name of the concept (the term) and its definition make sense, intuitively. An unclear term or definition will not have a great impact and several misunderstandings are bound to occur when the concept is used by other researchers. A high degree of familiarity is obtained by sticking to words and phrases that make sense and by not changing the meaning of these words and phrases. Although notably economists (Arrow 2000; Solow 2000; Ostrom 2000; Smith and Kulynych 2002) have argued that social capital is not capital in an economic sense and although all Putnamian definitions imply a different perception of social capital than in existing sociological definitions (Coleman's and in particular Bourdieu's), most people would probably agree that the concept of social capital makes sense. Putnam's definition is

easily understandable, uses words that are intuitively clear, and defines social capital as a production factor that rests on social relations.

Similarly, a concept that satisfies the second criterion, *resonance*, has a term that creates a cognitive click and is easy to remember. Thus to satisfy both the familiarity and the resonance criteria, a concept needs a label that makes sense, describes its contents, and, at the same time, is easy to remember. Social capital creates cognitive clicks to most people. As emphasized by Bjørnskov (2006), the most easily apparent argument in favor of social capital is that most people can find elements of the social capital concept that fit intuitively with situations in their own everyday life. Thus, social capital meets both criteria, which appears to be a main reason why the concept gained immense popularity so quickly. A third reason for social capital's popularity is that it meets the third criterion, *parsimony*. Parsimony basically refers to the length of the definition; short, precise definitions that characterize the concept without naming numerous attributes are easier to remember and to apply. Putnam's definition of social capital easily meets this criterion. However, as we shall see below, this comes at a great cost; the definition may be too parsimonious.

*Coherence*, the fourth and, according to Gerring, most important criterion, refers to the degree of internal coherence between the different attributes as well as between the actual, observable components of the concept. To evaluate this aspect, one needs to distinguish between the different types of conceptualizations found in Table 2, because the degree of coherence varies significantly between them. In the functionalist definition, social capital consists of two attributes: it is present in social relations and it enhances cooperation. These attributes are connected per definition because if some aspect of a social relationship does not produce cooperation, then it is not social capital. The same logic can also be applied to the observable components of the concept. According to the definition, social capital consists of every aspect of social organization that produces cooperation. This implies that the components at least have one thing in common, namely their positive effect on cooperation. As such the concept can be said to be coherent by definition.

Such 'coherence induced by definition' does not satisfy Gerring's criterion and is arguably the most criticized aspect of the social capital concept (Durlauf 2002a, b; Portes 1998, 2000; Sobel 2002; Sønderskov 2009). When social capital is defined as every aspect of social organization that enhances cooperation, the concept is not differentiated from other concepts (see below) and completely unsuitable in empirical analyses of the causes and effects of social capital. Any potential social cause of social capital will be social capital itself if it affects cooperation, and any finding of positive effects on cooperation or phenomena in any way related to cooperation is tautological.

This problem has led to several redefinitions of the concept which have abandoned the functional part of the definition. Yet, whereas the narrow non-functionalist version is likely to be coherent as it consists of a single phenomenon, several studies have argued and showed that the concept of e.g. trust is not unidimensional (e.g. Paxton 1999; Uslaner 2002; Alesina and Guiliano 2011). A wide version of the concept could also be coherent, but the possibility is a priori smaller than in the narrow version, since the former consists of several components.<sup>1</sup> We will explore the cohesion of the wide version in the empirical section below.

<sup>1</sup> We must stress that we primarily think of the dimensionality question in an empirical/statistical sense. Hence, even though a concept may be multidimensional in terms of consequences or attributes, it need not be multidimensional in a statistical sense if these attributes are sufficiently related. The strong test of multidimensionality that we have in mind is that of approximate, empirical orthogonality, i.e. attributes or phenomena are almost entirely unassociated with each other.

*Differentiation*, the fifth criterion, refers to the degree of boundedness from other, neighboring concepts. A highly differentiated concept is easily recognizable and easy to separate from other concepts. In Gerring's (1999, p. 377) words, "What we wish to know about a social science concept is not merely what it is, but also *where* it is—which is to say, where it *isn't*". The usefulness of a poorly differentiated concept is questionable because its unique scientific contribution is blurry and, moreover, it will often be operationalized in several ways leading to unrobust and unreliable empirical results. In the ideal process outlined by Adcock and Collier (2001), the emergence of fragile and unreliable empirical findings would necessarily lead to two types of scientific response. Either one would seek to refine indicators or, given that the fragility proves not to be a problem of indicators, social scientists would need to revisit the systematized concept to modify it accordingly. In some areas, the actual development could instead be that the profession, or a part of it, develops a Lakatosian protective belt of ad-hoc theorizing to explain the fragile findings (Lakatos 1977).

The functionalist version of social capital is probably one of the least differentiated concepts in the social sciences. Since social capital can be almost anything that leads to a societally advantageous outcome, it is highly unbounded, which also is obvious from the numerous operationalizations of the concept. Given that social capital is such a parsimonious concept, it has become increasingly difficult to see what it is not, exposing it to the critique that social capital scholars believe it to be present the moment that they observe an advantageous outcome. Fischer (2005, p. 157) puts this problem most concisely when assessing that "'social capitalism' has expanded in all directions like a swamp in wet weather." This lack of differentiation is the downside of the parsimonious definition.

On one hand, the non-functionalist conceptualizations are noticeably more differentiated as (most of them) clearly state what social capital is and therefore also imply criteria with which to identify it. On the other hand, one could question if a concept that defines social capital as trust, for example, is clearly differentiated from existing concepts of trust (e.g. Whiteley 2000, in Table 1). If social capital is (social) trust, why not just call it (social) trust? This is not merely splitting conceptual hairs, as trust already has been theoretically associated with cooperation and functioning of society (e.g. Deutsch 1958; Arrow 1972). The same logic can be applied to the concepts that define social capital as norms of public or private permissiveness or voluntary networks.

This critique becomes yet more relevant if discussed using another of Gerring's criteria: *field utility*. A concept with a high field utility does not damage the field it enters; it does not diminish the conceptual quality of existing concepts in the field. If social capital really is either trust, norms or networks, the concept has low field utility as it destroys the differentiation of existing concepts. On the other hand, if social capital is an integrated amalgam of trust, norms and networks, then social capital would be something different from existing concepts and would therefore not destroy existing concepts. Thus, in a strict sense, only the wide conceptualization meets the criterion of field utility.

We now turn to Gerring's seventh criterion: *depth*. A deep concept has several attributes that need not be part of the definition, but are attributes that are associated with the concept. Social capital is indeed a deep concept, as social capital has been used to explain a vast number of phenomena and most people therefore associate several outcomes to the concept. However, this depth is probably mainly a consequence of the undifferentiated nature of the social capital concept, which allows a number of phenomena covered by other fields to be appropriated by a social capital agenda.

*Theoretical utility*, the final criterion, basically refers to the concept's usefulness in theory formulation: does the concept help formulate new theories or refine existing? How

well does the concept add new knowledge into an existing field? In certain respects social capital has a very high theoretical utility. Social capital has brought social relations back into focus in several disciplines and has, for example, been called the missing link in the economic growth literature (Grootaert and van Bastelaer 2002). Social capital also has (perhaps not without damage) revitalized existing concepts like trust and social norms. In that sense social capital has, regardless of conceptualization, very high theoretical utility.

Several conclusions emerge from this lengthy evaluation. First of all it is noteworthy that the concept of social capital performs quite well on several criteria: familiarity, resonance, parsimony and theoretical utility. As noted above, it is therefore no wonder that the concept gained popularity so quickly, although the popularity may be unwarranted. In particular, problems identified in relation to the functionalist conceptualization are potentially devastating. In the functionalist conceptualization, social capital is not coherent; it is undifferentiated, has a low field utility and is unsuitable in relation to most social capital research questions. Hence, in relation to this conceptualization we conclude that social capital is not a good concept, and we logically have to urge social scientists to abandon this functionalist definition as quickly as possible.

On one hand, the narrow non-functionalist conceptualization fares a bit better as it may very well be coherent. On the other hand, the narrow conceptualizations only rename existing concepts (e.g. social or generalized trust to social capital) and therefore do not add anything new and may damage existing concepts. In favor of the narrow conceptualizations is that social capital probably has higher familiarity and resonance within the social sciences than existing concepts such as, for example, trust. However, other disciplines outside the social sciences are also studying the relationship between e.g. trust and cooperation (e.g. Fehr and Schneider 2010; McNamara et al. 2009), and social capital is probably not familiar to or resonating with scholars in these disciplines.

This leaves us with the wide non-functionalist conceptualization as the only version that might be good in Gerring's sense. If the wide conceptualization is to be differentiated from neighboring concepts and retain its field utility, it must be something different than existing concepts comprised in the definition of social capital. If social capital is defined as 'trust, norms and networks' and these components form an internally coherent concept, it would constitute a concept that fulfills most criteria quite well. Social capital would then be something different than existing concepts. Conversely, if the components are separate entities, social capital would not be of much use, as it is reduced to a collection of existing concepts that have different societal effects.

Thus, the crucial question is whether the wide conceptualization is coherent—or in the words of Martin Paldam, if there is an underlying rock underneath the concept:

The social capital dream is that social capital is a *robust* concept. If social capital is as important as suggested, it is likely that all or most of the different definitions stand on some 'underlying rock', so that everything deals with aspects of the same story. If this is true, the choice of definition is a question of convenience only. If on the other hand the concept is fragile and soft, the choice of definition is crucial, but then, social capital is unlikely to be something useful. Paldam (2000, p. 631).

#### 4 Is Social Capital a Coherent Concept, Empirically?

To assess whether the components of the wide, non-functionalist conceptualization form a coherent whole, we perform a series of principal components analyses on several social



capital indicators. Two individual-level principal components analyses and two aggregate-level analyses are performed using data from 48 American states and from 48 countries.<sup>2</sup> Performing the analysis with data from different geographical units and at different levels of analysis allows us to give the concepts the benefit of the doubt; if social capital indicators are unidimensional in just one of the analyses, social capital can be a good concept, at least in some instances.

#### 4.1 Levels of Analysis

Much has been written about the question whether social capital is a feature inherent in individuals, as stressed by Bourdieu (1986) and the use by Henry James in his 1904 novel, if it refers to community or society-level features as treated in Putnam (2000), Coleman (1988) and many others. However, this type of conceptual ambiguity brings its own empirical problems. One of the problems in this literature, as in all empirical studies, is that of ecological or cross-level inference (cf. Manski 2000, but see also Schwartz 1994).

It is often assumed that findings from the macro-level reflect micro features, a conjecture which is sometimes, but not necessarily, true. Robinson (1950), for example, showed that a positive correlation between immigration and literacy rates at US state level did not stem from a positive micro-level correlation between being immigrant and literacy; instead affluent states with high literacy rates attracted more immigrants (see also Seligson 2002). Likewise, political scientists and economists working with micro-level data often claim that their findings have marked consequences at the societal level, which can be equally wrong and most clearly so in the presence of positive or negative externalities associated with the concept measured at the micro level (cf. Inglehart and Welzel 2004). This is a most pertinent problem when strong theoretical concepts are used simultaneously at both levels while their relevant level of analysis is uncertain.

In the following, we focus on potential micro and macro relations between two of the constituent elements of the wide conceptualization, and use the trust-associational membership relation as an example, as the majority of studies employing a wide concept posit this exact relation.

Using this example, a first situation may occur if observations of trust and associational activity are clearly interrelated at the individual level while the *average* combinations of trust and activity at the aggregate (state/country) level are not immediately associated. For a concept such as social capital, this need not be a problem as long as the relevant level of analysis is the individual or the single community. As long as the causal chains at the micro level are corroborated empirically, the policy implications following from using the concept remain intact and the concept remains valid, despite what appears as independent elements at the macro-level.

If this is the case, it is an important qualification to recent critiques of a unidimensional social capital concept. For example, Bjørnskov (2006) uses principal components analysis to reject the validity of a unidimensional concept in macrodata from 63 countries, and Fischer (2005) criticizes Putnam's (2000) use of a single social capital indicator across the 50 US states. Yet, even if these studies—as would seem to be the case—can be replicated using slightly different methods and data, thus questioning the differentiability of the wide concept, none of Putnam's implications for how to build social capital, which crucially rest on his systematized concept, will be invalidated. Instead, it would mean that social capital should most likely be treated as a concept for individual-level analysis only.

<sup>2</sup> The fact that sample sizes are the same—48 states and countries—is purely coincidental.

However, this requires either that different elements of the wide concept are empirically associated at *both* levels (if Putnam's multilevel concept is useable) or that it is evident that individual-level observations are unrelated, thus seemingly rejecting the validity of a unidimensional concept. However, average individual-level pairs for each country can potentially be related at the *aggregate* level. While this of course would necessitate either a reconsideration of the indicators used to measure the concept and to score cases, or going further back in the conceptual chain, to review the systematic conceptualization of the concept, this situation does not a priori refute the use of the concept. In the latter case, if there is no association between single indicators at the micro level, some association at the macro level that statistically takes the form of confounding variables implies that there is some 'underlying rock' on which the concept stands. This factor—the underlying rock—moves both indicators simultaneously and can therefore be taken to be the *Uhrform* of social capital. The two situations thus refer to two different social capital concepts with different relevant levels of analysis: a purely individual-level feature and a feature residing in society if not in single individuals. In either case, the concept of social capital would need to be further differentiated with respect to its relevant level of analysis. In the following, these are the situations which we explore.

#### 4.2 The Empirical Picture

The first two analyses rest on the DDB Needham data set used by Putnam (2000), which covers almost 90,000 respondents across the US in the years 1975–1998.<sup>3</sup> Table 3 reports the results of a principal components analysis of 20 items from this dataset that all clearly belong in most wide conceptualizations of social capital. All items are chosen on the condition that there is full or nearly full availability for all years in the DDB Needham data set.<sup>4</sup> The set includes two trust measures—social and political—and 18 different types of social network activities ranging from what would be manifestations of 'bonding' social capital, such as entertaining people in one's home and playing cards with friends, to community-level social capital inherent in going to club meetings and working on community projects.

The table rather clearly shows that a situation in which a wide concept is incoherent at the individual level fits the US individual-level data from the DDB Needham surveys the best. The data split into no less than six principal components, which explain about half of the variation. The orthogonal rotated components can be categorized as: (1) involvement in the local community; (2) friends' informal socialization; (3) cultural activities; (4) sports activities; (5) social and institutional trust; and (6) activities with the family. Importantly, all these types of activities and beliefs either enter into a single social capital indicator or are used interchangeably as proxies for the others in most systematic conceptualizations of the concept. The existence of separate dimensions for such features is consistent with Fischer's (2005, p. 158) finding that "the correlations of trust with seeing neighbors and

<sup>3</sup> As is standard, Alaska is excluded from the survey due to its extremely sparse population, and Hawaii is excluded since it arguably does not belong to American culture, having approximately 60% indigenous inhabitants.

<sup>4</sup> At first sight, more variables included in this data set may be relevant in a composite social capital index. However, while those included in the analysis here are all measured in frequency within the last 12 months, the remaining variables are either measured in frequency compared to the previous year or only asked in certain years. As such, one set measures frequency while another measures year-to-year changes. In Putnam (2000), it is not always ideally clear which type is used.

**Table 3** Is social capital a unitary concept at the individual level?

	Principal component					
	1	2	3	4	5	6
Went camping						0.68
We usually have a large family breakfast on weekends						0.69
Most people are honest					0.71	
An honest man cannot get elected to high office					-0.73	
Played golf				0.63		
Went bowling				0.61		
Attended a sporting event				0.52		
Went to a pop or rock concert			0.64			
Went to the movies			0.61			
Went to a classical concert			0.52			
Played tennis			0.42			
Entertained people in my home		0.77				
Gave or attended a dinner party		0.67				
Played cards		0.55		0.41		
Sent a greeting card		0.52				
Did volunteer work	0.77					
Worked on a community project	0.75					
Went to a club meeting	0.69					
Attended church or other place of worship	0.50					
Attended a lecture	0.44		0.46			
Eigenvalue	3.18	1.67	1.31	1.19	1.14	1.01
Percentage of variation explained	11.66	8.65	8.26	7.30	5.92	5.74

All social activities are measured in their frequency the last 12 months. The analysis is based on 84,264 observations of which 59,265 have full data and the remaining holes are replaced the sample mean. Bartlett's test of sphericity has a score of 137,607, and the Kaiser–Meyer–Olkin measure of sampling adequacy is 0.786, both indicating that the analysis is valid

friends are about zero", but rejects the notions inherent in Putnam's wide conceptualization, a notion even explicitly stated in certain definitions of the concept.

Table 4 instead tests whether the associations change when raising the level of aggregation to the 48 US states for which the DDB Needham surveys report data, i.e. when moving from the individual to the aggregate, societal level of analysis. While the individual-level analysis showed evidence of six dimensions of social capital in these data, the aggregate analysis across the US states indicates only five dimensions. Exploring the interrelations between the component solutions reveals that the aggregate component 1 relates to individual components 2 and 5, aggregate component 2 relates clearly to individual component 3, which also to some extent is captured in aggregate component 3, aggregate component 4 relates clearly to individual component 4, and the loadings on aggregate component 5 are spread across individual components 5 and 6. As such, the aggregate analysis can be questioned in its own right on two counts: half of the items load strongly onto more than one component, and only two components (2 and 4) clearly capture the same construct as in the individual analysis. In particular, the individual trust component is associated with *two* aggregate components, numbers 1 and 5, the first of which can be interpreted as measuring

**Table 4** Is social capital a unitary concept at the cross-state level?

	Principal component				
	1	2	3	4	5
Went camping					0.861
We usually have a large family breakfast on weekends				-0.673	
Played golf				0.804	
Attended church or other place of worship			0.583		-0.545
Did volunteer work			0.682		
Attended a sporting event			0.719	0.516	
Worked on a community project			0.869		
Played tennis		0.602			-0.431
Went to a pop or rock concert		0.721	-0.525		
Attended a lecture		0.854			
Went to a classical concert		0.856			
Went to the movies		0.871			
An honest man cannot get elected to high office	-0.454				-0.475
Gave or attended a dinner party	0.496	0.744			
Went to a club meeting	0.559		0.675		
Played cards	0.584		0.401	0.547	
Went bowling	0.679			0.475	
Most people are honest	0.728				0.531
Entertained people in my home	0.897				
Sent a greeting card	0.921				
Eigenvalue	7.149	4.391	2.164	1.535	1.153
Percentage of variation explained	21.115	20.859	16.938	12.241	10.811

The analysis is based on 48 state observations in the DDB Needham dataset. Bartlett's test of sphericity has a score of 911.2, and the Kaiser–Meyer–Olkin measure of sampling adequacy is 0.741, both indicating that the analysis is valid

trust and a number of activities that individuals are more likely to engage in whenever they have relatively more trust in their fellow citizens (cf. Uslaner 2002). In other words, the two aggregate components measure either social trust or outcomes of such trust while the remaining components, which are central to Putnam's systematized concept and the theoretical foundations of the concept, belong to separate dimensions.

However, there is no guarantee that the situation in the United States is representative of social processes in the rest of the world. As a third exercise, Table 5 reports the results of an individual-level principal components analysis of the variables most often used in cross-country studies of social capital while Table 6 replicates the analysis at the aggregate country level. These variables are furthermore defined as closely as possible to the three main components of Putnam's (1993) original social capital concept.

As in most of the literature, the data employed in the exercise are drawn from the World Values Survey, waves three and four (Inglehart et al. 2004). This has two consequences. First, the WVS only asks about membership or activity in formal, voluntary associations. As a result, the network measures are thus likely to be less precise and less encompassing than those in the DDB Needham surveys (cf. Paxton 1999). Second, the WVS allows us to include proxies for the strength of social norms that are not included in the alternative

**Table 5** Is social capital a unitary concept at the individual level?

	Component				
	1	2	3	4	5
Church or other religion					
Professional association					
Other organization					
Social trust					-0.684
Cultural association				0.634	
Sports club				0.682	
Youth organization				0.703	
Confidence in the police			0.706		
Confidence in parliament			0.833		
Confidence in the government			0.864		
Labour union		0.460			0.482
Political party		0.463			
Environmental organization		0.587			
Human rights organization		0.678			
Local political organization		0.689			
Claim benefits	0.672				
Accept bribe	0.717				
Avoid fare	0.763				
Cheat on taxes	0.794				
Eigenvalue	2.915	2.319	1.828	1.072	1.021
Percentage of variation explained	11.531	10.583	10.496	9.544	6.023

The analysis is based on 66,030 country observations for which the WVS includes full data. Bartlett's test of sphericity has a score of 85,752.1, and the Kaiser–Meyer–Olkin measure of sampling adequacy is 0.767, both indicating that the analysis is valid. Note that the high loading on membership in labor unions is probably spurious when excluding single countries due to membership requirements in certain countries

survey. Although other types of social norms exist, these questions probe norms *proper* of public permissiveness without confounding them with any informal institutions ensuring enforcement of such norms. Changing survey and thereby survey design thus allows us to focus on slightly different measures while keeping the overall concept of social capital intact.

Table 5 yields the same basic result as Tables 3 and 4 that social capital is necessarily a multidimensional empirical construct. The principal components analysis suggests the existence of five dimensions employing these data. The components are: (1) a factor corresponding closely to social norms, i.e. what is deemed morally acceptable behavior; (2) a factor capturing membership in interest organizations; (3) a third factor measuring individuals' confidence in formal national institutions; (4) membership in non-interest organizations; and (5) social trust, although this component seems 'polluted' by a medium-strength loading on labor union membership. The high loading on membership in labor unions is nonetheless spurious when excluding single countries due to membership requirements in certain high-trust countries. As in the preceding analyses on US data, these five factors explain roughly half of the variation in the WVS data.

**Table 6** Is social capital a unitary concept at the cross-country level?

	Component			
	1	2	3	4
Social trust				-0.825
Labour union				0.809
Confidence in parliament			-0.874	
Confidence in the government			-0.901	
Confidence in the police		0.443	-0.506	-0.483
Claim benefits		0.744		
Avoid fare		0.854		
Accept bribe		0.862		
Cheat on taxes		0.864		
Political party	0.588		0.531	
Church or other religion	0.614			
Local political organization	0.618		0.641	
Other organization	0.640			0.449
Youth organization	0.718		0.503	
Sports club	0.791			0.415
Human rights organization	0.821			
Environmental organization	0.850			
Professional association	0.858			
Cultural association	0.950			
Eigenvalue	8.271	2.883	2.062	1.341
Percentage of variation explained	31.515	16.638	16.291	12.174

The analysis is based on 48 country observations for which the WVS include full data. Bartlett's test of sphericity has a score of 342.9, and the Kaiser–Meyer–Olkin measure of sampling adequacy is 0.789, both indicating that the analysis is valid. Note that the medium high loadings on various items and the high loading on labor unions on component 4 prove to be spurious when excluding single countries, cf. Bjørnskov (2006)

Finally, with some exceptions, Table 6 more or less replicates the basic analysis in Bjørnskov (2006), the most important exception being that the analysis yields four components instead of three. All organizational activities, with the exception of membership in labor unions, load highly onto the first principal components. As in Table 5, membership in this particular organization loads highly on the same component as social trust although with the opposite sign. In addition, all measures of social norms load onto the second component along with confidence in the police. The confidence indices in the three formal institutions again get their own third component while, as noted in Bjørnskov (2006), the loading of labor unions on the final component nevertheless proves to be spurious. As is the case in Table 5 and to some extent also in Tables 3 and 4, social trust is therefore a separate, orthogonal component of social capital.

In sum, this empirical exercise clearly shows that regardless of analytical units and level, the operationalized components of the wide conceptualization do not form a *coherent* whole; in other words, there is no underlying rock underneath these components. This result corresponds to several studies that have investigated the effects of the various components of social capital (e.g. Grafton and Knowles 2004; Knack 2002; Knack and

Keefer 1997; Pargal et al. 2002). These studies show that the different components seldom have the same effects, which also suggest that they are different phenomena without much in common, at least not in terms of their functional impacts. On that basis, we must conclude that the wide conceptualization is not coherent, which implies that none of the three different conceptualizations satisfy Gerring's (1999) criteria for a good concept.

## 5 Discussion and Conclusions

Social capital, one of the new buzzwords in the social sciences during the late 1990s, has in more recent years entered the stable set of social science conceptual vocabulary. As witnessed by the impressive growth of the literature making theoretical or empirical use of the concept, social capital as a concept has been remarkably productive. The present evaluation nevertheless suggests that it is not a good concept.

Gerring (1999) stresses that internal coherence must necessarily be the criterion rated above all other when evaluating the usefulness and scientific value of a social science concept. The critique of the likes of Paxton (1999), Stolle (2001), Uslaner (2002), Fischer (2005) and Bjørnskov (2006)—as indeed do the findings of this paper—suggests that social capital crucially fails this criterion. The various indicators employed here simply belong to the same category in neither the individual-level data nor the macro data. Even as the parsimony of the concept in itself is an argument in favor of its use, the failure of achieving coherence nevertheless also shows the problems of trying to differentiate social capital from other phenomena, and even of differentiating various systematized manifestations of the background concept from each other, whatever one chooses to define that concept to be. In other words, the existence of so many different ways of defining and operationalizing the concept means that we have lost track of what we broadly talk about in the social capital literature.

At the end of the day, any assessment of the value of social capital as a social science concept depends on how the pros and cons are weighed. The pros obviously count the extensive familiarity and resonance of the very idea of social capital, and how parsimonious it is. Indeed, the enthusiasm with which the concept has been accepted by many social scientists, practitioners and politicians must necessarily count for something. However, the cons also weigh heavily in the account. In particular, since the concept is *not* internally coherent, it comes to lack depth—at least in an empirical sense—and given that the many different definitions of the background concept overlap both with each other and with neighboring concepts, the social capital concept is poorly differentiated and fails Gerring's criterion of field utility, as adequate names for most of its constituting elements already exist. Thus, it may have done damage to neighboring concepts by drawing them under one 'hat' and thereby distracting attention from these concepts, an aspect of the problem that should not be underestimated. This goes in particular for a neighboring concept such as social trust, which the results in this paper suggest is not a coherent part of the remaining social capital concept.

On one hand, in Adcock and Collier's (2001) ideal setting, the social sciences thus need to revisit not only the systematized concept of social capital, but perhaps also the background concept, if its main ideas are not to be abandoned entirely. Yet, as Guinnane's (2005) critical essay exemplifies, social trust still comes to be attacked as part of a fuzzy concept even though it must be distinguished from particularized trust and reputation, with which Guinnane confuses it. On the other hand, the broad interest in social capital has arguably also drawn further academic attention to neighbors, thereby being of considerable

benefit to adjacent research agenda. In other words, a partial effect of the conceptual failure of social capital may have contributed to a clearer conceptualization of trust. What counts the most must depend on how one assesses the prospects for the dynamic development of both the social capital concept itself and the adjacent concepts. As such, it must be up to any social scientist to reach a final conclusion as to whether social capital is a good concept.

Our own assessment can be summed up with an example from the history of music. The German composer Richard Strauss allegedly once wrote to a friend that it is better “perhaps to follow a wrong track and say something wrong, than to remain on the old, beaten track and say something superfluous”. This would also reflect our assessment of the social capital concept. Putnam’s unitary concept is not a good concept, but by saying something that turned out to be partially wrong, he re-energized an entire research area covering several diverse fields.

**Acknowledgments** We are grateful for comments on previous versions from anonymous referees, Niclas Berggren, Jørgen Møller, Svend-Erik Skaaning, Richard Traunmüller, Eric Uslaner, and participants at a CINEFOGO conference in Aalborg, Denmark, June 2009. All remaining errors are of course ours.

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