

# Healthy Ties



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Social Capital, Population Health  
and Survival

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# Preface

## A Personal Odyssey

As the author of this book, I have to start with the confession that I am not an epidemiologist, but a neuroscientist and a specialist in clinical neurology by my medical education. However, for the past three decades I have marveled and investigated the impact of social relations on population health. I was driven into this field of research via my personal experiences and arising curiosity after landing into a Swedish-speaking minority community in my own country. Finnish is my mother tongue, but in my current bilingual family, I am the only Finnish-speaker while my wife and our two children have Swedish as mother tongue. Soon after joining the Swedish-speaking minority community in my home town, I realized, and also found supportive evidence from population health research, that Swedish-speaking Finns live a healthier and longer life in comparison to the Finnish-speaking majority. My positive experience as a warmly accepted intruder in the Swedish-speaking community stimulated my interest in this phenomenon and the related population health research and was quite fundamental to writing this book about healthy ties.

Living in a bilingual family and socializing with Swedish-speaking friends in a new socio-cultural environment soon opened my eyes to both apparent and latent cultural differences between the Finnish-speaking majority and Swedish-speaking minority populations in Finland. Thus, I am deeply indebted not only to my wife Vivi-Ann and our children Sara and Miklos, but also to my numerous Swedish-speaking friends in Finland and Sweden who have greatly contributed to my knowledge of their social relations and social capital.

## How to Study Healthy Ties?

The following review is partly based on my own odyssey on a cultural and social map with several white spots. In order to my emerging scientific interest in the impact of social relations on population health, some basic facts concerning the Swedish-speaking minority community in Finland are needed. For seven centuries, up to the year 1809, Finland was a part of the Swedish Kingdom, and during that

era, Swedish was the official language in our country, used by the authorities and the upper classes, while Finnish was the main language spoken by the people. Today, both Finnish and Swedish have the status of official or national languages in Finland. Swedish-speakers constitute a minority of 5.3% of the total population, and they reside predominantly in the western and southern coast areas, more or less intermingling with Finnish-speakers. Astonishingly, Swedish-speakers have better health, lower morbidity, better functional capacity and longer survival as compared with the Finnish-speaking majority, even within the same geographic regions. Remarkable differences in longevity and health can be observed in every village, town and city in which Swedish-speakers inhabit side by side with Finnish-speakers. Well aware of the rule of thumb that minorities all over the world do worse than their respective majorities in terms of well-being and health, I started to examine this exceptional phenomenon facing me in my domestic surroundings.

The most frequently expressed explanations for the situation, offered by lay people and even some epidemiologists, had been the claims that Swedish-speakers in Finland are more prosperous and, coming originally from Sweden, they own a Western (Swedish) genetic profile. As a consequence, they are supposed to have better health than the less prosperous Finnish-speaking people with Eastern heredity (originating from beyond Ural in Russia). These and similar claims arguing that the Swedish-speaking Finns be somehow, as they say in Swedish, *bättre folk* (“better people”) have been shown to be nonsense. One can easily reject the first claim by reviewing mortality statistics: the registered lifetime of Swedish-speaking fishermen and farmers – occupations generally known to have very high mortality – is unexpectedly long and much longer than that of Finnish-speakers (including fishermen and farmers) living in the same coastal area. As to the alleged favorable “Swedish” heredity, the population genetic profile (both maternal and paternal lines) of the residents of, at least, one Swedish-speaking municipality seems to stem from the Eastern Finnish Karelia, indicating that genetics offers no solution here.

A great part of this book involves populations in the Nordic countries, especially in Finland and Sweden. The readers should not be dismayed by the bias; it has its rationale. For epidemiological surveys, it is a major strength that all Nordic countries have for a long time kept comprehensive population registers with unique personal identification numbers for each citizen. The personal identification system is one of the best tools for practicing scientific epidemiology as it can be utilized for linking data derived from different nationwide sources. Comparative and follow-up data sets with, for example, morbidity and mortality rates are available for investigators, and some of the registered data are available even for laymen on the websites of Statistics Finland and Statistics Sweden.

As regards the issue at hand, it turned out very soon that the subjectively observed and objectively registered inequalities in health status and the related outcomes between the two language communities in Finland could not be explained by conventional health-related factors. Population health data showed that conventional medical findings and comparisons may be insufficient for explaining the obvious inequality in health between Swedish-speakers and Finnish-speakers. Instead of looking for differences in demographic, biological, medical and psychological

factors, I started to study if and how cultural factors and social relations affect population health.

As an empiricist, I needed a hypothesis to be tested and proved. Back in the early 1990s, the concept of “social capital” seemed the most promising as a hypothesis for conducting empirical studies on social relations and population health within bilingual communities and the nation as a whole. For twenty years ago, social capital was a strange concept to be used in studies concerning population health and possible links between social relations and community health. Sociologists and epidemiologists opposed my first projects involving the study of social capital. First of all, they did not at all believe in the concept of social capital (or better, they did not know it). Second, they did not trust that a MD would be capable of investigating population health from a sociological perspective. Fortunately, my colleagues and experts in statistics, Juhani Mäki and Erkki Alanen helped me to design and perform register-based surveys as well as to analyze nationwide data with sophisticated statistical programs. Additionally, Arpo Aromaa, Olli Impivaara, Jouko Kajanoja, Seppo Koskinen and Jussi Simpura have been my invaluable co-workers and distinguished experts in social capital, epidemiology and population health research. In the late 1990s, several research groups and networks were founded to investigate social capital in Finland. The awakened interest led to research seminars and meetings that helped us to receive funding for facilitating larger empirical studies. In addition to my closest research teams in Finland, and nowadays also in Sweden, I have had the great pleasure of joining the study group focusing on social capital and population health within the National Institute for Health and Welfare, Finland. My gratitude goes to the good friends and intelligent colleagues in these research groups. I also want to thank Lea Eerola-Heinonen for efficient and detailed proofreading of my English texts.

## **World-Wide Problem of Health Inequity and Social Capital**

In its final report, the Commission on Social Determinants of Health set up by the WHO (CSDH 2008) not only described the dramatic differences in health that are closely linked with the degree of social disadvantage, but also called for closing the health gaps between and within countries, and recommended several actions. The Marmot Report states as follows: “The role of governments through public sector action is fundamental to health equity. But the role is not government’s alone. Rather, it is through the democratic processes of civil society participation and public policy-making, supported at the regional and global levels, backed by the research on what works for health equity, and with the collaboration of private actors, that real action for health equity is possible” (CSDH 2008).

Health inequalities prevailing in most Western countries have contributed to the expanding interest in various social determinants of population health (Wilkinson, 1996, Marmot and Wilkinson 2006). One of such social determinants of health is social capital, with roots going back to the writings of the leading authors in

sociology, including Marx, Simmel, Durkheim and Weber (Kunitz 2004). Since the early 1980s, three scholars, namely Pierre Bourdieu (1979, 1980, 1986), James S. Coleman (1988, 1990) and Robert D. Putnam (1993, 2000), have revitalized the concept of social capital, each from a different perspective. Even though theoretical discussions and investigations over the past thirty years have not led to any unequivocal definition of social capital, the concept has been applied in economy, political sciences, sociology, psychology – and finally, in health sciences (see, Kawachi et al. 2008a). Fifteen years ago, social capital was practically unknown among health researchers and epidemiologists, but today, a Google search for “social capital and health” will result in well over 50 billion hits. Correspondingly, a PubMed search gives more than 40,000 articles about “social capital and health”.

So, social capital is a relatively new and attractive concept for health research and epidemiology. Unfortunately, the term “social capital” has been used by various authors from many different viewpoints that put the whole concept in danger or dilute its meaning. In the early 2000s, the application of social capital in health studies has been debated and critically scrutinized in the field of health inequalities research (e.g., Kawachi and Kennedy 1997, Kawachi et al. 1997, 1999, Hawe and Shiell 2000, Lynch et al. 2000, Forbes and Wainwright 2001, Macinko and Starfield 2001, Fassin 2003, Szreter and Woolcock 2004, Kunitz 2004). Towards the end of the past decade the variability in the conceptualizations and applications of social capital in health studies has been acknowledged in textbooks (Castiglione et al. 2008, Kawachi et al. 2008a) and academic dissertations (e.g., Lindström 2000, Forsman 2005, van der Gaag 2005, Rostila 2008, Nyqvist 2009, Oksanen 2009), but many critical points and challenges still remain unresolved.

Democratic processes facilitating civil society participation and public policy-making have been recommended by several global organizations as a source for public health equity in developing countries (e.g., CSDH 2008). Currently, social capital is a widely acknowledged candidate for implementing beneficial democratic processes and promoting public health, but before utilizing social capital for these purposes, its significance must be evidenced by scientific research. On the path of scientific verification, there are several barriers to overcome from the conceptualization to the implementation of social capital. To provide empirical proof of the effects of social capital on public and population health is a serious challenge and the main focus of this book.

## **Methodological Challenges**

Epidemiologists and other health scientists carrying out research in the field of social capital and population health are aware of the difficulty of establishing causality between social capital and health, even in well-controlled large-scale population health surveys. A plethora of associational investigations have been published without establishing causality; after all, it is not even theoretically possible to draw any causality from associational studies. In the scientific reports on social capital and



population health, the problem of associational study design has not always been listed among the limitations of the study in question although it is actually the biggest challenge to be solved. Prospective longitudinal studies are urgently needed, but the longitudinal approach does not necessarily solve the challenge of causality, even if it may strengthen possible causality assumptions. Prospective epidemiological studies are insufficient for establishing causality between two propositions in spite of a long time interval, and especially because the measured phenomena may vary along the time period. A double-controlled experiment comparing treatment (social capital) with non-treatment or placebo (sham social capital) should assist in proving causality between social capital and population health. Everybody understands that such an empirical experiment is impossible. In addition to the risk of reverse causation in epidemiological studies, there is the unavoidable problem of possible unknown or latent confounders that may explain relationships between social capital and health outcomes.

Epidemiological studies from the Nordic countries overcome some of the above-mentioned problems typical of associational empirical studies. It has been shown that the Scandinavian welfare states possess a higher level social capital in the form of social trust and social engagement than other European states. Also, as compared with unrepresentative, small-scale studies from other countries, the large population health surveys from Finland, Sweden, Norway and Denmark provide many advantages in terms of empirical population research. Egalitarian societies, personal identification codes linking data from various sources, nation-wide population registers, nationally representative and re-tested health surveys, and the long tradition of epidemiology submit to serve well the research into social capital and population health.

Turku, Finland and Stockholm, Sweden  
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Markku T. Hyyppä



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