

**Research Proposal:** Spatial effects on network social capital and cohesion of occupational groups by Zhiyi Jin

*Preamble*

This research proposal is embedded within the framework of the ERC Advanced Grant project “A network science approach to social cohesion in European societies” (PI: Dr. Miranda Lubbers, Autonomous University of Barcelona), for which I am employed as a PhD student researcher. Thus, I am already pursuing my PhD studies in Spain. Given the use of advanced network methodologies in the proposal and the high-risk, high-gain nature of ERC projects that allow methodological experimentation, we approached Dr. Christian Steglich (who was my MSc thesis advisor at the Institute for Analytical Sociology in Sweden) and Prof. Dr. Marijtje van Duijn enquiring about the possibility of doing a double doctorate with the Department of Sociology and ICS Groningen. Both my supervisors and I believe that my thesis would benefit greatly from a double doctorate with the ICS Groningen, for (1) the expertise of Dr. Steglich and Prof. Dr. Van Duijn in social network statistics; (2) my potential embeddedness in the wider SNA cluster of ICS Groningen; (3) the contributions of other ICS members to research on social capital and social networks; and (4) the rigorous training that ICS provides to its PhD students. Below I will explain my research topic. The thesis will be article-based.

*Research Topic*

Occupations are important channels through which social and economic resources are assigned among individuals. The hierarchical nature of occupations, expressed in occupational prestige, sorts individuals into different social strata. Originating from the Weberian model of social stratification, the hierarchy of occupations can serve as a pillar in studying social inequality, as individuals’ social positions are partly defined by their positions in the occupational hierarchy (e.g., Treiman, 1977; Hauser & Warren, 1997). Through a horizontal lens, occupations can be categorized into different but more or less equivalent groups (e.g., sectors), in which individuals hold similar social experiences (e.g., Erikson et al., 2012; Lin & Hung, 2022). In this regard, occupations influence, for instance, political preference and other attitudes. In both the vertical and horizontal dimensions, the structure of occupation groups is one important aspect of the structure of a society (Weenen & Grusky, 2005).

To study societal cohesion relationally, i.e., “the interdependence between members of a society, shared loyalties and solidarity” (Durkheim, 1893), it is therefore highly relevant to explore to what extent individuals with different occupations relate to one another formally and informally. The everyday relationships in society that cut across differences of occupational prestige (“bridging ties”, Putnam, 1993) may establish cohesion among social classes. It is therefore of interest to study the prevalence of such bridging ties, the features of these ties relative to intragroup ties (e.g., their relative strength, valence, or informality), and the features of the individuals most engaged in them. This thesis, conducted within the framework of the PATCHWORK project, will study structural cohesion (i.e., the extent to which society is held together by the relationships among its members; Moody and White, 2003) in terms of social relationships among people with different occupations in five European countries - Hungary, the Netherlands, Poland, Switzerland, and Sweden, illustrative of a range of socio-economic regimes. Based on the literature on homophily (e.g., McPherson et al., 2001), I expect that positive, informal relationships between occupations that vary in prestige are less prevalent than among occupations with similar prestige in all societies, but that societies may vary in the strength of this tendency due to contextual variations. Social relationships between people with different occupational prestige levels are also central

to the concept of social capital. This concept has a long tradition in sociology. Bourdieu (1986) defined it as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (p.248). Putnam (1993) conceptualized it as a collective trait of networks, norms, and social trust that can generate cooperation and reciprocity. Coleman (1988) considered it as a resource for action that essentially resides in the social structure of relationships among people. Social capital, from a resource-based perspective, refers to valuable resources embedded in personal relationships (Lin, 1982; Flap & Volker, 2004; Van der Gaag et al., 2008). Having social contacts with abundant and/or diverse social resources can help the focal individual to achieve various instrumental and expressive purposes (Lin, 1999).

One specific instrumental return on social capital is labor market outcomes. As occupations indicate levels of prestige and other labor-market-related resources, people who have access to high-prestige positions or to a wide array of positions through their networks, are considered to have ample social capital that can affect their own labor market mobility. Social capital, thus typically measured through the levels of occupational prestige of a person’s network members (Lin, 1999), has been found to influence the start of the occupational career, help individuals to secure jobs with higher wages, higher prestige, or jobs that better fit their level of education by shaping their career aspirations, giving them access to more job opportunities, and getting them referrals to a specific job position (e.g., Granovetter, 1995; Lin, 1999; Flap & Boxman, 2000; Mouw, 2006; Franzen, 2006).

1. The social capital literature is thus closely related to the literature about structural cohesion among social classes.

Nonetheless, it is focused on the individual level and assumes that relationships with people with higher or diverse occupational prestige give benefits to individuals that can further affect the occupational structure. By using retrospective data, I will test this assumption. Therefore, this thesis will connect social capital (at the individual level) and social cohesion (at the societal level) theories in terms of occupations.

It is of note that although the effect of social capital on labor market outcomes is widely studied, findings vary depending on how the concept of social capital is theoretically modeled and empirically measured. Given the substantial amounts of literature on this topic, without a large-scale systematic review, it may be difficult to summarize the available empirical evidence on the effects or to identify the methodological issues in the field. Before comprehensively reviewing relevant studies in depth, I preliminarily assume that there are some gaps, identified by some scholars, in the understanding of how social capital affects individuals’ future occupational prestige, and similarly, how social cohesion among social classes is established.

One main gap is the role of space in constraining social capital and cohesion (e.g., Habinek et al., 2015; Small and Adler, 2019; Kuo and Fu, 2021). On the one hand, I expect space to matter as macro- and meso-level contexts in which networks are formed and mobilized. Specifically, a geographical location with its specific social, cultural, and economic contexts may shape the occupational composition of the local population and therefore the meeting opportunities with people of different statuses, which would affect the composition of the focal individual’s acquaintanceship network and their embedded resources. For example, Eagle et al. (2010) use the UK government’s Index of Multiple Deprivation with census data of telephone exchange networks finding that the diversity of individuals’ relations is strongly related to the economic development of communities. On the other hand, I expect the geographical locations of respondents and their network members and the distance between them to matter at the micro-level for the mobilization of social capital. If, for instance, a jobseeker growing up in a poor neighborhood has a friend or an acquaintance who moved to

urban areas, he or she may be more likely to obtain job information about a company in that area through this contact. As the weak tie theory highlights the importance of acquaintances in providing access to information about job vacancies and opportunities (Granovetter, 1973), the geographical location of the acquaintances may affect the quality of job information or the opportunities to enter a different economy.

To sum up, this study will study the structural and spatial effects of network social capital on occupation prestige by addressing these concrete questions:

1. What is the state of the art of literature regarding the relationship between social capital and occupations?
  - 1.a How is social capital measured?
  - 1.b How has the network structure, which links the concept with that of societal cohesion, been studied in this literature?
  - 1.c How much attention has been given in the literature to the role of geographical space, and what conclusions can be drawn about this role?
  
2. How are the social relations between people with different occupational prestige structured in five European countries, and do they vary spatially?
  - 2.a How are different occupational groups connected to each other in the society-wide acquaintanceship network of each of the five countries?
  - 2.b How does the connectivity interact with geographical space within each country?
  
3. Can regional- and country-level socio-economic contextual variables explain the effect of social capital on occupation prestige?
  - 3.a How does individual-level network social capital relate to occupational prestige (and changes in prestige)?
  - 3.b Do the geographical locations of a focal individual's acquaintances moderate this relationship?
  - 3.c If so, do contextual factors such as local education level, economic development, income inequality, and unionization rates explain this moderating effect?