Social capital and homophily both matter for labor market outcomes – evidence from replication and extension

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\section*{A B S T R A C T}

Social resource theory has been challenged, as the effects of contact resources on job outcomes may be spurious given the presence of homophily. We review the Mouw–Lin debate and propose that occupational homophily moderates the role of contact resources in the labor market and that effects of resources depend on labor market institutions. We analyze data from the US, East Germany before 1989, and post-reform China, combining the first-difference method and Heckman selection procedure to deal with endogeneity. Empirical findings from different labor market contexts demonstrate that: (1) contact resources have a causal and positive role in job outcomes; (2) in a market economy, the role of resources is more salient if they provide within-occupation job-leads; (3) under state job-assignment systems occupational homophily does not pay off; and (4) job-search ties can take the form of heterophilous selection.

\section*{1. Introduction}

A large body of sociological literature has been accumulated regarding how social networks or social capital affect individual job outcomes in the labor market. Lin (2001) has classified relevant studies into three strands. The first strand, labeled “using contacts”, focuses on the effect of using social ties as compared to not using them. The second strand, labeled “accessible contacts”, addresses the role of the overall quantity or quality of resources embedded in one’s ego-centric networks. The third strand deals with the effects of “mobilized social capital” often measured by contact resources (i.e., resources of a specific contact who has offered substantial help in the job search). Central to the third strand of research is Lin’s (1999) social resource theory, which argues that the better, or the higher quantity of social capital that is used, the better job outcomes will be.

However, replicating and extending the 1970 Detroit Area Study (DAS) by Marsden and Hurlbert (1988), Mouw (2003) prominently challenged the social resource theory by showing that once homophily (e.g., the similarity between the occupations of the job seeker and the contact) is considered, the role of contact prestige in status attainment becomes insignificant.\textsuperscript{1} Since previous empirical studies supporting Lin’s theory had not considered the presence of homophily, the estimated role of contact resources is very likely to be spurious and due to selection effects. To defend the social resource theory, Lin and Ao (2008) aptly pointed out that Mouw (2003) had erroneously coded the key variable of occupational homophily, or “same-occupation”. In particular, the comparison between the contact’s job and the respondent’s current job “cannot reflect social influence (e.g., a respondent approaching the contact for help in the labor market) that must precede the current position of the respondent” (Lin et al., 2013:26; emphasize by authors). Taking into account the “correctly” specified occupational homophily – i.e., to compare the respondent’s previous job and the contact’s job – recent studies have lent support to social resource theory (Lin and Ao, 2008; Son and Lin, 2012; Son, 2013; Lin et al., 2013; Bian et al., 2015).

Although the debate has lasted for more than a decade, two issues raised by Mouw (2003) still deserve further investigation. First, the similarity of one’s “current job” and the contact’s job may affect the role of social capital, since “inside” job-leads can be more productive than “outside” job-leads, especially in a modern labor market like the US, where job information matters for job searches. In other words, the role of social capital may be

\textsuperscript{1} Mouw (2003) not only examined the role of used social capital, but also addressed the effects of mobilized contacts.
moderated by occupational homophily and depend on particular labor market contexts. Second, the endogeneity problem in estimating the role of social capital should be addressed in a systematic way. Under the counterfactual framework, to defend Lin’s (1999) social resource theory, one needs to use appropriate identification strategies (e.g., a fixed effects model, an instrumental variable, or propensity score matching, etc.), which have been advocated by Mouw (2006) in relation to carrying out causal analysis.

We first provide a critical review of both sides of the “Mouw–Lin debate”. We replicate the 1970 DAS and reveal the potential significance of occupational homophily (i.e., Mouw’s version of “same-occupation”) by demonstrating how it influences the productivity of contacts prestige in urban USA. Next, we develop a theoretical model of the network effect and how it hinges on occupational homophily under different labor market institutions. To examine the empirical implications of this model, we draw on causal evidence from the former German Democratic Republic (GDR) and post-reform China by combining the first-difference method and the Heckman selection model. We aim to add to this line of research by: (1) testing Lin’s (1999) social resource theory using the advanced models that Mouw (2006) has called for; and (2) providing insights into how institutional contexts shape the role of social capital by exploring whether and how the role of contact resources interacts with occupational homophily in different societies.

2. The Mouw–Lin debate: a critical review

It is theoretically plausible to expect that contacts matter in the job seeking process, because social resources are unevenly distributed in society. As a result, all other things equal, mobilized social resources pay off. Empirical evidence supporting the role of contact resources can be found in a host of studies (e.g., Lin et al., 1981a,b; Marsden and Hurlbert, 1988; De Graaf and Flap, 1988; Requena, 1991; Wegener, 1991; Bian and Ang, 1997; Bian, 1997; Volker and Flap, 1999, 2001; Smith, 2000; Lin, 2003; to name a few). Lin (2001) presents a cogent review of these studies, and argues that a consensus has been reached that high status contacts are in general beneficial to job outcomes.

2.1. Homophily as confounder: Mouw’s challenge

Mouw (2003) was among the first to notice that social homophily (for an overall review of homophily see McPherson et al., 2001) might be a competing theory to the social resource perspective. Social capital may be wrongly interpreted while effects actually only mirror the tendency of similar people to become friends. Hence, the major concern is: the estimated effects of contact resources might be misleading as the association between social capital and the job outcome may not be causal but due to homophily: which is not accounted for in the regression model. In the section “Exogenous social capital model” Mouw (2003:882) tested this by replicating and extending the 1970 DAS by Marsden and Hurlbert (1988). Mouw (2003) suspected that the estimated role of contact prestige in previous analysis might be accounted for by selective social networks or friendship derived from homophily (p. 869). Therefore, Mouw constructed a variable that represented whether or not respondents had the same occupation as their contacts. Taking into account this occupational homophily, the replication reveals that the significant effect of contact prestige disappeared (Mouw, 2003:883, Models 2 and 3 in Table 5).

According to Mouw (2003), the significant role of contact prestige merely captures the fact that there are some job-seekers, who have the same occupations as their contacts. Consequently, the results from previous studies that had not considered the presence of occupational homophily must have overestimated the role of used social capital. Mouw (2003) therefore stated that: “the evidence in favor of the social resources perspective is largely an artefact of the incidence of same-occupation information flows between contacts and job-seekers” (Mouw, 2003:883). This finding strongly challenged Lin’s (1999) social resource theory, since the reported social capital effects only mirror the advantages brought about by occupational similarity, which is obviously one of the various dimensions of social homophily.

2.2. Questionable operationalization of homophily: Lin’s refutation

The original data and Stata codes used in Mouw (2003) were published on his personal website, making it possible for other scholars to replicate the study. Lin and his colleagues put forward a strong refutation after they inspected Mouw’s (2003) Stata codes (Lin and Ao, 2008; Lin et al., 2013). According to the syntax for coding key variables, the occupational homophily in Mouw (2003) was specified by comparing the contact’s position with the respondent’s “current” position. However, as Lin et al. (2013:25) argue, “the social capital theory clearly proposes that the ‘reaching up’ phenomenon refers to the process from ego’s initial position to contact’s” – implying that the comparison should be made with respondents previous position instead of the current one. The comparison between the contact’s job and the respondent’s current job “cannot reflect social influence (e.g., a respondent approaching the contact for help in the labor market) that must precede the current position of the respondent” (Lin et al., 2013:26).

Lin and his colleagues further pointed out that the correct method by which to construct the dummy variable of occupational homophily is to compare between the respondent’s previous job and the contact’s job. Using the “correctly” specified occupational homophily, Lin et al. (2013) replicated the 1970 DAS and found that the effects of contact prestige are still statistically significant, no matter whether similar occupations are excluded or not (see also Lin and Ao, 2008; Son, 2013; Son and Lin, 2012). Including three measurements for occupational similarity in the regression, Bian et al. (2015) reported that controlling for homophily does not mitigate the role of network resources. In general, this line of research stresses that the mistakenly specified social homophily variable led to misleading findings in Mouw (2003).

2.3. Revisiting the debate: occupational homophily as a moderator

Is this the end of the debate? On the one hand, we believe that – although the refutation by Lin and his colleagues is based on cross-sectional analyses – Mouw’s (2003) challenges to the genuine role of contact resources have not seriously undermined social resource theory. On the other hand, we argue that it is premature to claim that Mouw’s (2003:883) concern with the similarity between the contact’s job and the respondent’s current job is unsubstantiated. We argue that, although occupational homophily seems not to be a potential confounder, it may still have important implications. More in particular, we argue that having the same or a very similar occupation can determine the returns of social resources. In addition, we believe that the broader institutional context of a labor market influences the value of contacts since different institutional settings enforce different mechanisms of social capital. If this holds, the results from the models by Mouw (2003) require a different interpretation.

Occupational homophily – the similarity between the current job of a respondent and the job of a contact – can actually be regarded as a measure of the efficiency of social capital: job-leads, especially job-related information from “inside” the contact’s own occupation is more accurate, efficient, and hence more useful