

Employers' social contacts and their hiring behaviour in a vignette study

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Abstract

This study addresses two main research questions. First, whether referrals from employers' business and professional contacts matter for their hiring behaviour, and if so, why. Second, whether employers' use of educational qualifications as screening criteria varies in the presence of referrals from their business and professional contacts. Theoretically, various hypotheses were formulated, arguing that driven by different mechanisms, applicants referred by business or professional contacts will more likely be hired, fit better in the new working environment, and be easily trainable than the non-referred applicants. Moreover, the presence of such social contacts will in particular increase the role of educational qualifications as screening criteria. Based on a combination of a factorial survey (also known as a vignette study) with an experimental design with a sample of employers in England, we were able to assess the causal effect of employers' social contacts on their hiring decisions and the underlying mechanisms. Our results show that due to informational advantages, referrals from business and professional contacts of employers do matter for their hiring behaviour. Moreover, educational credentials are indeed the only screening criteria that gain additional weight in increasing the likelihood of an applicant being hired, being considered as easily trainable, and fitting well in the new working environment, when the applicant is referred by an employer's business or professional contacts. This reinforces the argument made in the literature that, when formal educational qualifications are not easily interpretable due to loose linkages between school curricula and occupational profiles, informal recruitment channels can represent a compensatory strategy for employers to deal with poor signalling.

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1. Introduction

Networks of interpersonal ties are often described as conduits for the flow of high-quality information. In particular, their role in fostering labour market opportunities has been addressed by sociological studies on the importance of social contacts in the job search (De Graaf and Flap 1988; Granovetter 1995; Burt 1997; Lin 1999; Erikson 2001; Flap and Boxman 2001; Yakubovich 2005). From a job-seeker's perspective, obtaining information from networks of interpersonal ties² (i.e., friends, relatives, colleagues, or acquaintances) is known as *informal job search*. From an employer's perspective, it is known as *informal recruitment*.

Informal recruitment methods and informal job searching activities have in common the fact that a tie conveys more and specific information about a candidate and job opportunities, respectively. However, the literature on the role of social contacts in the labour market has mainly considered the supply side of job matching, i.e. job-seekers, with a focus on their use of networks during the job search. Marsden and Gorman (2001) stress that interpersonal ties can also play a role in the recruitment process: specifically, employers may recruit via referrals by publicizing job openings among incumbent employees or business and professional contacts and asking them to recommend qualified candidates. Employers' reliance on referrals from incumbent employees during the recruitment process has been addressed in a number of studies based on detailed personnel records, which measure the chances of referred job applicants to succeed at each, consecutive stage of the hiring process (Fernandez and Weinberg 1997; Fernandez et al. 2000; Petersen et al. 2000). Findings from these studies confirm that referrals from incumbent employees are associated with higher chances of a job interview and job offer rates than their non-referred counterparts.

We aim to contribute to this literature by examining an important source of referral that has been under-researched, namely referrals from business and professional contacts. The few existing studies emphasize the importance and frequency of this source of recruitment (Petersen et al. 2000; Behrenz 2001; Marsden 2001; Pinkston 2012). Our first research question addresses whether referrals from business and professional contacts matter for employers' hiring behaviour, and if so, why. Theoretically, we employ and discuss the five mechanisms used in previous seminal works of Fernandez and others in trying to explain employers' reliance on referrals from incumbent employees. Empirically, we apply a combination of a factorial survey (also known as a vignette study) with an experimental design, allowing for a proper assessment of the causal effect of employers' social contacts on their hiring decisions and the underlying mechanisms.

Our contribution goes a step further by linking this informal recruitment to the screening criteria used by employers in the hiring decision process. Previous studies have shown that employers, while hiring, are not coping with information scarcity, but rather have problems

² In this paper, we will use the terms interpersonal ties and social contacts interchangeably.

trusting information that come from unfamiliar sources (Miller and Rosenbaum 1997; Brinton and Kariya 1998; Rosenbaum et al. 1999). Thus, if other screening criteria like education, work experience, etc. do not convey sufficient or credible information, one would expect employers to rely more heavily on their social contacts. In fact, research focusing in particular on educational credentials as screening criteria suggests that information obtained from informal recruitment channels should be even more important when formal institutions such as the educational system fail to send clear signals to employers (Marsden 2001; Albrecht and van Ours 2006; Casella and Nobuyiki 2008). This brings us to our second research question on whether the role of educational qualifications as screening criteria varies depending on the presence of referrals from employers' business and professional contacts.

Our study is based on employers' hiring behaviour in England. The country choice was made based on England being a typical case of a country characterized by a weakly standardized educational system and the existence of multiple, somewhat overlapping, qualification frameworks (Hillmert 2002). As a result of poor signalling, English employers cannot rely on education as a clear signal of the skills and knowledge possessed by school leavers (Breen 2005). It is thus here that one would typically expect informal recruitment channels to represent a compensatory strategy for employers to deal with poor signalling.

2. Theoretical framework

2.1. Ties in the labour market: informal recruitment

The extensive literature on the use of interpersonal ties has made a substantial contribution in our understanding of the workings of the labor market. Though not as exhaustive as the informal job search literature,³ the extent to which employers engage in informal recruitment when filling vacancies, and their motives to prefer informal over formal channels, has attracted the attention of scholars from both sociology (Boxman et al. 1991; Erikson 2001; Marsden 2001; Marsden and Gomoran 2001; Gërxhani and Koster 2012; Gërxhani et al. 2012) and economics (Montgomery 1991; Behrenz 2001; Russo et al. 2005; Schram et al. 2010). Framed from the viewpoint of employers, one has to consider the advantage that employers can gain from the use of information that is channelled through social networks (Montgomery 1991): what matters is whether and to what extent employers rely on social ties with incumbent employees or other business contacts while making hiring decisions. During

³ For some points of criticism on this literature, see Mouw (2003), Yakubovich (2005), McDonald and Elder (2006).

the hiring process, networks of interpersonal ties can yield high-quality information that employers are willing to obtain and reward (Petersen et al. 2000).

Employers' reliance on referrals from their incumbent employees has been thoroughly studied (e.g., Fernandez and Weinberg 1997; Fernandez et al. 2000; Petersen et al. 2000; Fernandez and Sosa 2005). Other source of referrals, i.e., from employers' own business and professional contacts, have received less attention. The few existing studies do however indicate that this type of referral may play an important role in employers' recruitment and selection decisions. On the basis of data from the National Organization Study, a representative employer survey in the United States, Marsden (2001) reports that business and professional contacts are a frequent source of recruitment in more than a fifth of the surveyed establishments. Employers are more likely to use this type of interpersonal ties when recruiting for managerial, professionals/technical or sales/services positions than for semi-skilled or unskilled ones. This same finding is supported by an empirical study of Dutch organizations (Gërkhani and Koster 2012). Petersen et al. (2000), analysing the personnel record of a high-tech firm in the U.S., find that cold calls, campus recruiters and having been a previous contractor were important referral methods used by, respectively, 14,3%, 14,8% and 9,4% of the applicants. A Swedish study shows that references from former employers and personal contacts are among the most important sources of information for employers when choosing the person to be hired (Behrenz 2001). Pinkston (2012), using a survey conducted for the U.S. Department of Labour, reports that referrals from other firms provide employers with more information than other hiring channels, and are associated with higher wages and productivity levels than non-referrals. The effects of referrals on the flow of information are substantial: on average, it takes employers almost one and a half year to learn as much about a non-referred employee as they know about an employee referred by another firm.

Though important, these studies do not go in depth in examining why and when employers use their own business and professional contacts in deciding whom to hire. Studies focusing on referrals from incumbent employees, on the other hand, do so. In particular, Fernandez et al. (2000) distinguish between five distinct mechanisms that may explain how employers can benefit from recruiting informally. Thanks to network contacts of their incumbent employees, employers can tap into a pool of applicants that would not be reached otherwise (mechanism 1: *applicant pool expansion*). As the contacts making the referral are concerned about their reputation within the organisation, they will tend to refer only qualified applicants (mechanism 2: *reputation protection*). Referrers, having themselves survived previous screening processes, are a positively selected group and by putting in a good word for individuals who are alike will generate a qualified pool of candidates (mechanism 3: *homophily*). In addition, referrers can pass on information that is difficult to measure or not readily observable for the employer (e.g., about applicants' soft skills, attitudes, work ethic) and at the same time provide applicants with inside knowledge about the job and the workplace (mechanism 4: *informational advantages*). Additionally, referrals from incumbent employees can yield post-hire advantages, as established relationships between referrers and

referees on the one hand, and better knowledge of both the job content and of the job setting on the other hand, can ease the transition into a new workplace (mechanism 5: *social enrichment*).

These mechanisms can also underlie employers' reliance on referrals from their business and professional contacts. Four of them are applicable to the empirical analyses presented in our study⁴. Business and professional contacts can pass on to the employer relevant, hard-to-measure information about applicants' personality, soft skills, commitment and work ethics, aspects that are not immediately clear from formal qualifications (*informational advantages*) (Marsden 2001). In case applicants have worked for these contacts in the past, it is likely that informational advantages resulting from hiring via this source of referrals are more prominent than when referrals are made by incumbent employees. This information will be trusted, as the contacts making the referrals are concerned about their reputation in a shared business environment and will in turn be reciprocated (*reputation protection*) (Gërkhani et al. 2012). An applicant referred to an employer by the latter's business and professional contacts will more likely be similar to both the contact and the employer than non-referred ones, a similarity that may be rewarded as it may indicate a better compatibility with the new organization (*homophily*) (Fairchild and Robinson 2004; Castilla 2011; Rivera 2012; Fernandez and Galperin 2012). Applicants that have been referred by business and professional contacts of the employer may also signal a "capacity to invest in and draw on interpersonal social capital, and thereby to succeed in the position in question" (Marsden 2001: 108). A similar argument has been discussed by Erickson (2001): job applicants with access to a large and varied network of contacts can signal to employers the possibility to exploit these resources, once hired. Therefore, by choosing to hire applicants recruited via this type of referrals, employers may anticipate the attainment of positive post-hire outcomes (e.g., *social enrichment*).

This leads to the following hypotheses:

Hypothesis 1: Applicants referred by business or professional contacts of a prospective employer will more likely be hired than non-referred applicants (*informational advantages; reputation protection; homophily; social enrichment*).

Hypothesis 2: Applicants referred by business or professional contacts of a prospective employer will be expected to fit better in their new working environment than the non-referred applicants (*homophily*).

⁴ The mechanism of 'applicant pool expansion' will not be discussed further since, empirically, we use a vignette method in which, by design, applicant pools are predetermined. In other words, our focus lies in the advantages that employers derive from their interpersonal ties when the applicant pool to be hired from is held constant.

Hypothesis 3: Applicants referred by business or professional contacts of a prospective employer will be expected to be more easily trainable than the non-referred applicants (informational advantages).

2.2. Informal recruitment and the screening of educational credentials

Signalling theory (Spence 1974) argues that employers, when hiring, have very little information about the productivity and commitment of prospective employees. In order to make their hiring decisions, they rely on signals from the educational system (e.g., grades, coursework, duration of studies). However, some authors (Rosenbaum et al. 1990; Miller and Rosenbaum 1997; Brinton and Kariya 1998) have nuanced this theory with the observation that signals are trusted by employers only if embedded in a context of on-going social or institutional relationships. On the basis of interviews with 51 employers in Chicago and its western suburbs, Miller and Rosenbaum (1997: 499) argue that “social infrastructure not only is the means by which information is conveyed but also influences the ways in which employers view information and particularly whether they trust it”. Despite employers’ stated needs for academic skills, and the fact that schools could provide information about school leavers’ academic performance (e.g., grades, school transcripts, teacher recommendations), employers in this study rarely based their hiring decisions on information received from schools and explicitly mentioned that they did not consider it trustworthy. To cope with the problem of mistrust, employers depended on information that is “conveyed within a social context of an on-going relationship” (p. 500) and relied on recruiting networks. These networks can be more or less institutionalized. In some countries, like Germany, Japan and the Netherlands, institutional linkages between schools and employers are well-developed and information received from schools is perceived as reliable and highly regarded. Elsewhere, like in England or the United States, long-term personal relationships between teachers and employers may improve the role of grades or school transcripts as signals (Rosenbaum et al. 1990; 1999).

In a relatively more recent study, Jackson et al. (2005) discuss various signals of education from employers’ perspective. The main ones involve ‘certifying’ acquired knowledge and ‘signalling’ less or non-observable characteristics of an applicant like motivation or commitment. Based on an empirical analysis of job newspaper advertisements in England, they find support for their theoretical argument that “employers may find educational qualifications of decreasing value to them in making their personnel decisions, both as certifying relevant competencies and as signalling unobservable but desirable attributes on the part of potential employees. Moreover, if qualifications do thus decline in value as a signal, an incentive is created for employers to look for alternative, or at all events supplementary signals” (Jackson et al. 2005: 12). Some of the signals they mention vary from field of study (see also van de Werfhorst 2002) to more ‘ascribed’ characteristics like social background.

Interpersonal ties as a form of signalling through their informational advantages has not been studied so far. This is particularly relevant since a hiring process involves first a recruitment phase in which various recruitment channels are used to attract applicants, and then a screening phase where a hiring decision is made based on a screening and ranking of various criteria like education, work experience, etc. (Barron and Bishop 1986). When these criteria are perceived as insufficient, unclear or unreliable -as argued from the studies above- social contacts through informal recruitment may play a crucial role, ensuring that the information provided by the screening criteria can be trusted by employers. This is especially the case in labour markets where formal certifications of an applicant's quality only loosely reflect employers' demands due to poorly developed institutional linkages between study programs and the business environment, like in England. Since in these labour markets education as a credential does not say much about an applicant's specific skills and trainability (Arthur et al. 2007), referrals from an employer's business and professional contacts may provide supplementary signals about the applicant's educational qualifications. In other words, employers may interpret existing signals from education as more credible if channelled through their business or professional contacts. Consequently, education as a screening criteria will increase the likelihood of an applicant being hired, being compatible with the new environment, and being easily trainable to a greater extent if the applicant is referred by the employers' contacts. The main mechanism at play involves *informational advantages* of having more detailed information on an applicant's history of previous performances, commitment, flexibility, cooperation, intelligence, or eagerness to learn. Hence the following hypotheses:

Hypothesis 4: The effect of educational credentials on an applicant's likelihood to be hired is stronger for applicants referred by business or professional contacts of a prospective employer than for non-referred applicants.

Hypothesis 5: The effect of educational credentials on an applicant's likelihood to fit better in the new working environment is stronger for applicants referred by business or professional contacts of a prospective employer than for non-referred applicants.

Hypothesis 6: The effect of educational credentials on an applicant's likelihood to be easily trainable is stronger for applicants referred by business or professional contacts of a prospective employer than for non-referred applicants.

3. Design, data and method

3.1. Counterfactual hiring decisions

In an important study that critically reviewed existing contributions on the role of social ties in the labour market, Mouw (2003) warns researchers against the risk of confounding the effect of social capital with spurious correlations due to the non-random acquisition of

friendship ties. He proposes a test to assess the causal effect of networks (i.e., the information that social ties can provide and that job-seekers are able to access in order to find a job) on labour market outcomes. If contacts really matter, “then well-connected individuals should be more likely to obtain their job through contacts than otherwise identical individuals who are not well-connected” (Mouw 2003: 873). A comparison between networked job-seekers and *otherwise identical individuals* who cannot access their contacts (e.g., who during their search cannot obtain information about available jobs from friends, relatives or other acquaintances) implies a counterfactual comparison.

In a similar vein, but from the perspective of employers, Fernandez and Galperin (2012) emphasize the importance of discussing counterfactual hiring decisions of firms that recruit via networks. They observe that “simply put, for the causal effect to be identified, the analysis needs to address what the hiring outcome would have been if not for the firm’s use of the network” (p. 3). In studies based on personnel records, employers’ higher likelihood to hire referrals could partly be confounded with the role of other factors that remain unobservable to the researcher, but are known to the employers when making the hiring decision. To the extent that these factors are correlated with both the likelihood of the applicants to be part of a network and with their likelihood to be hired, then the network effect would be spurious.

For our research interests, the core issue is determining what employers’ assessments would be if job applicants were not referred by a business or professional contact. Previous studies have applied laboratory experiments (with students) to control for the type of information about prospective employees that is available to the employer (Schram et al. 2010; Gërkhani et al. 2012). Alternatively, Pinkston (2012) compared pairs of individuals employed in the same firm for the same job, but differing in their referral status (thus differencing out job- and firm-specific characteristics). In this study, we follow the suggestion of Fernandez and Galperin (2012) and compare employers’ assessments of job applicants that are recruited without an interpersonal tie, to the assessments that the same persons would receive if they were applying via a network tie. In order to do so, we rely on a vignette study carried out with a sample of human resource professionals employed in the Information, Communication and Technology sector in England. Compared to other studies, the main advantage of our method is the possibility to compare assessments made by the same employer for the same type of job, before and after the recruitment source is disclosed (on the contrary, personnel records usually pool together data on employees that have been assessed by different recruiters at several points in time). Using this method, we test whether applicants receive better assessments if referred by business or professional contacts of the employer, with a particular focus on whether applicants’ educational credentials are evaluated differently when referred and non-referred.

3.2. Data and method

Our study is based on a simulation of a hiring process with a sample of employers (represented by human resource professionals) in the Information, Communication and Technology (ICT) sector in England, in June-November 2012. The respondents are employed in companies that are affiliated with either of the two ICT trade associations operating in England: UKITA (UK IT Association, the trade association for ICT small and medium-sized enterprises) and INTELLECT (trade association for the technology industry). They were contacted by phone or email and invited to take part in an online survey. 22 human resource professionals participated in the survey. The socio-demographic characteristics of these respondents and of their organizations are summarized in table 1. Nearly all respondents are highly educated, and there is a balanced representation across genders. The majority of respondents have at least 3 years of experience in personnel selection, confirming that we targeted decision-makers with some established expertise in making hiring decisions. Our sample included both private and public sector organizations, and guaranteed that both large organizations and organizations of small or medium size were covered. Almost 80 per cent of our respondents regularly solicit referrals from business or professional contacts while recruiting.

TABLE 1 HERE

The survey was divided into two parts: first, we simulated a hiring process using a vignette study and asked employers to rate hypothetical profiles of job applicants; after a shortlist of five applicants was created, we told employers that these shortlisted applicants had found other jobs in the meantime. In the second part, five additional profiles were shown to respondents. They were told that these applicants had been recruited via referrals from business or professional contacts of the employer. Importantly, the informal recruitment source was only revealed in the second part.

For the hiring simulation, we relied on a web-based vignette study (Rossi and Anderson 1982; Jasso 2006; Wallander 2009), a technique widely applied in research on deviant behaviour and on justice evaluations, but less known in labour market sociology. Employers rated a series of vignettes showing hypothetical descriptions of job applicants, which had been created through a random combination of a few characteristics of interest. These characteristics were: gender of the applicant, previous work experience, participation in an internship at the employer's firm, level of education, field of study, grade point average, study duration, extra-curricular activities. We measured employers' ratings on a scale from 1 to 100, in terms of agreement with the following three statements: i) it is likely that I will hire the applicant; ii) it is likely that the applicant if hired, will be easy to train; iii) it is likely that the applicant, if hired, would fit well with the corporate culture of my organization. Thus, our

first dependent variable measures employers' hiring propensity, whereas the second and third ones capture, respectively, the trainability and fit with the organization, aspects that are commonly discussed among the expected benefits of recruiting informally (Fernandez et al. 2000; Marsden and Gorman 2001).

Once employers assessed a number of randomly allocated vignettes, the software identified the five best-rated applicants based on the average across the three types of ratings. We call these vignettes "shortlisted applicants". As the recruitment source was not yet revealed, we consider these ratings as baseline counterfactuals of what the hiring decision would be in the absence of an interpersonal tie. Once the recruitment source was disclosed, employers were asked to rate five additional job applicants. Unbeknownst to employers, they were still shown the same shortlisted applicants⁵. Thus, the only difference between the first and the second sets of ratings is that, for the latter, the recruitment source was known.⁶ Our main focus is on the difference between ratings at time2 and ratings of identical applicants at time1 (i.e., their counterfactuals), and on whether this difference increases for better-educated applicants. The characteristics of shortlisted applicants, which by design are identical to the applicants recruited via referrals, are reported in table 2.

TABLE 2 HERE

4. Results

To test our hypotheses 1, 2, and 3, we start by showing in table 3 a comparison of employers' ratings separately for the job applicants that were shortlisted before the recruitment method was revealed, and for those that were rated after employers knew that one of their business or professional contacts had made a referral. We reiterate that, by design, the profiles of the two types of applicants were equivalent. As the profiles of job applicants used to elicit employers' ratings were distributed randomly to employers, we are not primarily interested in the absolute rating scores given to the applicants. Instead, we focus on the change in ratings within each pair of equivalent applicants (i.e., before and after the recruitment source was revealed).

⁵ This study was part of a larger survey that included questions about the applicants' profiles described in the vignettes and employers' hiring practices. Some of these questions were asked between the creation of the shortlist and the experimental condition of revealing the recruitment source. This guarantees that employers were not aware of the fact that they were shown the same set of applicants that had been rated previously.

⁶ One could still argue that we did not obtain 'proper' counterfactual ratings, since employers thought that they were dealing with a set of additional applicants in the second stage. Our interpretation of the counterfactual ratings is comparable to audit studies, where two fictitious identical applicants differing only with regard to the characteristic of interest to the researcher (in this case the referral status) are evaluated by the same employer. Just as in audit studies, the difference between referred and non-referred applicants will be interpreted as the net effect of referrals, as every other characteristic of the applicants is held constant by design.

TABLE 3 HERE

Once employers know that applicants have been recruited informally, they tend to give more positive ratings: the difference between ratings at time2 and at time1 are positive for all three dependent variables. Independent of job applicants' characteristics (which were held constant by design), knowing that the applicants have been referred by a business or professional contact improves employers' hiring propensity and expectations regarding future trainability and corporate fit. Although differences in ratings are in the expected direction for all three measurements, the change is significant at $p < 0.05$ only for employers' expectations about the trainability of applicants, if hired. This finding provides support for hypothesis 3, arguing that due to *informational advantages* employers would expect the referred applicants to be more easily trainable than the non-referred ones. In substantive terms, the size of the difference may seem negligible, but this could be due to the fact that in our study employers were simply informed that the applicant had been referred by one of their business or professional contacts, without specifying which kind of relationship existed between the applicant and the common contact (e.g., whether the contact was a former employer of the applicant, or had screened the applicant before). By giving higher ratings to applicants that had been recruited informally, employers may foresee the option of further probing into other aspects of an applicant's profile (e.g., soft skills, work ethic, commitment, personality). It is likely that the effect of referrals would be higher if employers knew that the contact making the referral had the opportunity in the past to observe the performance of the applicant, as demonstrated by Antoninis (2006) and Gërzhani et al. (2012) for the relationship between referrals and wages. Thus, we consider our results as conservative estimates of the effect of referrals on the three dependent variables. It is worth mentioning that differences in ratings are slightly higher when restricting the analyses to the 17 employers (77% of the sample) who indicated in the survey that they regularly recruit via referrals from their business or professional contacts (2.16; 3.16 and significant at $p < 0.05$ and 2.48 and significant at $p < 0.1$, respectively for each dependent variable). This finding provides a first indication that employers are more positive towards information that is conveyed through interpersonal ties, in line with previous studies (cf. section 2). Our "counterfactual within-employer design", which compares identical pairs of job applicants differing only with regard to their referral status, confirms that employers give, on average, more positive ratings to applicants that have been referred by business or professional contacts of the employer. As we focus on within-employer changes, the higher ratings obtained by referred applicants cannot be due to unobserved differences across employers.

We now turn to a multivariate analysis, in which we regressed employers' ratings on the characteristics of the rated applicants. We used an OLS regression model with fixed effects to account for the fact that, in a vignette design, ratings are nested into respondents. We take as dependent variables employers' ratings of the likelihood that: they would hire the job applicant (1); the applicant, if hired, would be easily trainable (2); and would fit well in the new working environment (3). Results are shown in table 4, separately for the three dependent variables. All characteristics that were mentioned in the vignettes were included as

independent variables, together with a dummy variable measuring the referral status of the applicant. Referral status was coded as 1 if the applicant was referred by a business or professional contact of the employer, and 0 if non-referred. To test hypotheses 4, 5 and 6, we included interaction effects between educational credentials and the referral status.

TABLE 4 HERE

In table 4, two models are shown for each dependent variable. The first model (M1) controls for the characteristics of the applicants and their referral status, the second model (M2) adds the interaction effect between educational credentials and referral status. Although not of our primary interest, it can be observed that applicants with high grades and previous work experience are, on average, more likely to be hired. High performers are also rated as more easily trainable and a better fit with the new working environment. Applicants who have dropped out of their study programs before obtaining a degree are perceived as a worse fit, and would less likely be hired, other things being equal. Turning to our variable of interest, i.e., referrals, hypothesis 3 of referred applicants being considered as more easily trainable is again confirmed, as the main effect of referral status is positive (although significant only at $p < 0.1$). According to the second models, interaction effects between referral status and educational credentials are significant and positive, indicating that educational credentials are relied upon as screening criteria to a greater extent when the applicant is referred by business or professional contacts of the employer.⁷ The three graphs reported in figure 1 facilitate the interpretation of interaction effects by showing the pattern of changes in ratings per groups of applicants, varying in their educational qualifications and referral status. When applicants are referred, there is a stronger differentiation in ratings across the three educational levels, suggesting that the role of education as a screening criterion becomes more reliable. In particular, the effect of referrals is stronger for applicants that have followed a master's program at the university. After knowing that applicants with a master's level have been referred, ratings of their trainability increase by 6.94 percentage points ($p < 0.01$), and ratings of their fit with the new working environment increase by 6.85 percentage points ($p < 0.01$), while holding every other characteristic of the applicants constant. Their chances to be hired increase by 4.79 percentage points ($p < 0.1$)⁸. Model fit also improves after introducing the interaction effects, as shown in table 4 by the within-employer r-squared.

⁷ Note that we even controlled for other interaction effects between screening criteria and referral status, but no evidence was found besides the one related to educational qualifications.

⁸ When restricting the sample to employers who regularly recruit via referrals from their business or professional contacts, ratings of the trainability of applicants with a master's level increase by 7.64 percentage points ($p < 0.01$), and ratings of their fit with the new working environment increase by 8.08 percentage points ($p < 0.01$), while holding every other characteristic of the applicants constant. Their chances to be hired increase by 5.72 percentage points ($p < 0.1$).

FIGURE 1 HERE

An observation worth mentioning from figure 1 is the negative effect of referrals for lower educated applicants: ratings for applicants with A-levels decrease after the informal recruitment source is disclosed, though not significantly so. It appears that the presence of referrals starts to pay off at a certain degree of formal qualifications. This reinforces our call for a more detailed analysis of the way employers' screening criteria may vary depending on the recruitment method used to attract applicants to the organization.

Before concluding, one caveat is worth discussing: in our design, in order to elicit employers' ratings after the recruitment source was disclosed, we told employers that the job applicants they had shortlisted had found other jobs in the meantime. This was a necessary strategy in order to gather employers' ratings about referred applicants⁹. It is possible that this particular setup gave employers the impression that they were operating in a tight labour market, which could trigger different responses to the use of particular types of recruitment channels (e.g., Henkens et al. 2005). In our analysis, we could not test whether employers' decisions were influenced by perceptions of labour market tightness. To provide a robustness check for our results, we analysed ratings collected from a control group of 12 additional employers. The first stage of the vignette study was identical to the one previously discussed. After a shortlist of applicants was created, employers in the control group were told that the shortlisted ones withdrew their applications as they found a job in the meantime. As an alternative, they could re-screen the remaining five best-rated applicants from the initial pool. Importantly, these applicants were not recruited via referrals. Table 5 reports a comparison of ratings at time1 and time2 for employers in the control group. If labour market tightness would play a role, one would expect employers' second ratings to be higher: in the absence of additional applicants to screen, employers are likely to reconsider the rated applicants as the available pool in the labour market is limited. This was not the case: for all three dependent variables, ratings at time2 were significantly lower. The fact that employers' behaviour was the opposite in the presence of referrals excludes the possibility that the reported difference in ratings is related to a perceived labour market tightness.

TABLE 5 HERE

⁹ Admittedly, a better alternative would be to mention the recruitment channel among the characteristics that are listed in the vignettes. However, our study is part of a broader survey that was originally designed for other purposes, and it was not possible to include the recruitment channel in the description of the profiles.

5. Conclusions

This study makes a threefold contribution to sociological research on the importance of social contacts in the labour market. First, our focus on employers and in particular their business and professional contacts adds to a body of literature that has either primarily concentrated on supply-side explanations or when considering the demand-side, it has mainly focused on the social contacts of incumbent employees. Second, by combining a factorial survey with an experimental design we created counterfactual hiring decisions in order to compare how characteristics of identical job applicants are perceived in the presence or absence of referrals from employers' business or professional contacts. In so doing, we provide a proper test of the causal effect of employers' social contacts on their evaluations of job applicants. Third, we argue theoretically and show empirically that for a better understanding of the hiring process, screening of applicants' characteristics and the method through which they are recruited should be considered jointly, as this is how employers assess their applicants.

More specifically, we find that referrals from business and professional contacts of employers do matter for their hiring behaviour. Employers in our sample rated job applicants more favourably if the latter were referred by the business or professional contacts. This was especially the case with regard to employers' expectation that the applicants, once hired, would be easy to train. The main mechanism underlying such a finding is related to the *informational advantages* of receiving more detailed information on e.g., an applicant's work ethic, intelligence, flexibility, or eagerness to learn. Moreover, we were able to analyze which characteristic of an applicant's profile is assessed differently by the employers in the presence of referrals. We found that among various characteristics, only educational credentials gain additional weight in increasing the likelihood of an applicant being hired, being considered as easily trainable, and fitting well in the new working environment, when the applicant is referred by an employer's business or professional contacts. This reinforces the argument made in the literature that, when formal educational qualifications are not easily interpretable due to loose linkages between school curricula and occupational profiles (Hillmert 2002; Breen 2005; Jackson et al. 2005; Arthur et al. 2007), informal recruitment channels can represent a compensatory strategy for employers to deal with poor signalling (Marsden 2001; Albrecht and van Ours 2006; Casella and Nobuyuki 2008). This effect is however more noticeable at higher educational levels. As Harvey et al. (1997) have concluded based on a study of employers of graduates in England, whereas a tertiary degree was once considered as a passport into employment, with the expansion of higher education and the increasing number of graduates, a degree has become a necessary but not sufficient criterion for getting a job, though it still represents a guarantee of ability and an indication of potential.

Other authors have proposed that for jobs with very technical requirements, such as the ones under study in this paper, informal recruitment channels may be superfluous, as formal credentials already provide specific information about applicants' knowledge and skills (Lin 1999). However, according to our study, this observation should be further qualified. In

England, where formal education does not provide, in and of itself, clear signals to employers, interpersonal ties are relied upon to compensate for the information uncertainty associated with poorly understood qualifications. In this study, we have found preliminary evidence for the claim that social contacts can correct for poor signalling: as previously noted by Miller and Rosenbaum (1997: 517), “employers must not only receive information but receive it in the context of a social infrastructure that reassures them of its trustworthiness and relevance”. This is an important finding, as it points to ways in which the employment opportunities of job-seekers may be enhanced, even when formal education does a poor job in preparing for specific occupations. There is however a downside as well: social inequality will arise as only those job-seekers with access to employers’ social contacts will benefit. Finally, given our findings on technical jobs that are expected to have more strictly-defined criteria, one would expect the effect of interpersonal ties to be much stronger for other types of jobs with more loosely-defined criteria.

Our results have important policy implications. Researchers and policy-makers alike regularly voice concerns about the failure of the British educational system to prepare students for specific occupations, especially if compared to countries like Germany or the Netherlands, where vocational schools or dual programs are better attuned to labour market needs. Our findings support the idea that school leavers entering their first job may largely benefit from interpersonal ties with business or professional contacts of their prospective employers. However, given the social inequalities that may arise, it would be better if these ties were to be transformed into institutionalized pathways of interaction between schools and employers (Brinton and Kariya 1998; Rosenbaum et al. 1990, 1999). Increasing collaborations between schools and employers may significantly contribute to youth’s employment opportunities: for instance, by taking part in sandwich degree placements, students build a network of professional contacts that may prove useful in gaining access to jobs (Raffe 1981; Purcell et al. 2002). According to the Education 2020 strategy of the British government, improving the occupational orientation of high education study programs and reorganizing the modern apprenticeships belong to the priorities for the higher education sector.

Importantly, information received from business or professional contacts is perceived as trustworthy only if the employer believes that the colleague making the referral is not being self-serving (Miller and Rosenbaum 1997). This did not seem to be a concern for the employers in our sample, as they expressed more favourable ratings after knowing that the applicant had been referred by one of their business or professional contacts. However, one has to keep in mind that employers’ decisions to recruit informally are not randomly distributed, nor are referrals from business and professional contacts¹⁰. Future studies should consider more closely the motives that underlie employers’ preferences for informal recruitment channels, and the factors associated with such choice (e.g., Gërxhani and Koster 2012; Gërxhani et al. 2012).

Finally, our study focused on England, a country in which the educational system does not give employers specific information about job applicants. We do not know whether the same considerations would be applicable in countries characterized by different institutional arrangements (e.g., Germany or the Netherlands, where educational signalling is high). On the other hand, one could argue that in England the less strict legislation on dismissals allows employers to correct for bad matches at a relatively low cost (Breen 2005), and should reduce their concerns at the hiring stage even in the absence of referrals (thus reducing the difference in ratings). We found significant differences in employers' ratings behaviour, especially for tertiary educated applicants. At least for England, and for the sector under study, Lin's conclusion (1999: 481) that "the use of informal channels by itself offers no advantage over other channels, especially formal channels" may have been premature.

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Table 1. Characteristics of respondents and their organisations.

	Characteristics of employers	
	%	<i>Freq.</i>
Gender		
Male	54.55	12
Female	45.45	10
Educational background		
A-level	5.56	1
Tertiary, university	88.89	20
Tertiary, polytechnics	5.56	1
Age		
less than 25	0.00	0
25-34	54.57	12
35-44	27.29	6
45-54	13.65	3
more than 55	4.55	1
Experience in personnel selection		
<2 years	9.09	2
3-5 years	27.27	6
6-10 years	36.36	8
>10 years	27.27	6
	Characteristics of organisations	
	%	<i>Freq.</i>
Sector		
Public	9.09	2
Private	40.91	9
Both	50.00	11
Firm size		
from 10 to 49 employees	31.82	7
from 50 to 249 employees	13.64	3
more than 250 employees	54.55	12
Regularly recruit via referrals from business or professional contacts		
Yes	77.27	17
No	22.72	5

Note: N total employers = 22.

Table 2. Characteristics of applicants described on the vignettes that were shortlisted.

	Characteristics of applicants	
	<i>%</i>	<i>Freq.</i>
Gender		
Male	56.36	62
Female	43.64	48
Level of education		
A-level	26.36	29
Tertiary, bachelor	30.91	34
Tertiary, master	42.73	47
Field of study		
Informatics	24.55	27
Economics	35.45	39
Social Science	40.00	44
Study duration		
On time	36.36	40
Two-year delay	35.45	39
Early drop-out	28.18	31
Grade point average		
Fair	51.82	57
Very good	48.18	53
Extra-curricular activities		
Yes	51.82	57
No	48.18	53
Previous work experience		
Yes	53.64	59
No	46.36	51
Internship at the firm		
Yes	56.36	62
No	43.64	48

Note: N total applicants = 110.

Table 3. Comparison of mean ratings before and after the informal recruitment channel is revealed. Paired t-tests, one-tailed.

	Hiring propensity	Easy to train, if hired	Fit with corporate culture, if hired
Time1 (baseline counterfactuals)	30.23	34.05	36.22
Time2 (recruited via referrals)	32.04	36.96	37.92
Difference in ratings	1.82	2.91^{**}	1.70

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

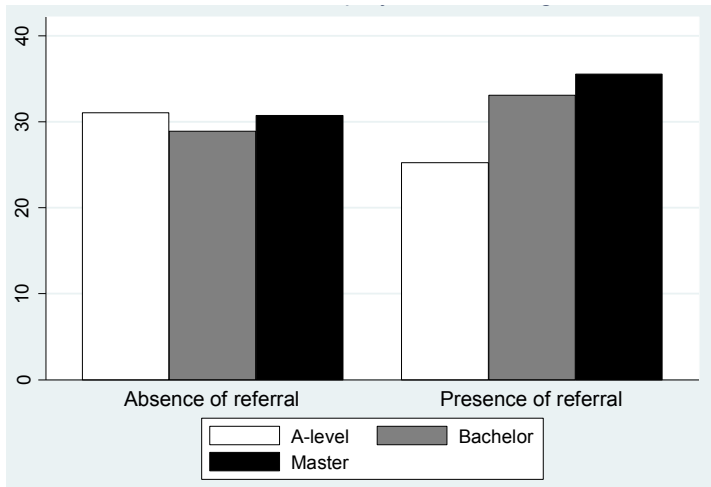
Table 4. Employers' ratings and the characteristics of the rated applicants.

	Likelihood to hire		Easy to train		Fit with corporate culture	
	<i>M1</i>	<i>M2</i>	<i>M1</i>	<i>M2</i>	<i>M1</i>	<i>M2</i>
Gender (<i>ref. male</i>)	-1.872 (2.266)	-1.872 (2.241)	-0.591 (2.015)	-0.591 (1.988)	3.042 (1.992)	3.042 (1.956)
Work experience	6.401*** (2.186)	6.401*** (2.162)	1.103 (1.945)	1.103 (1.918)	0.044 (1.921)	0.044 (1.887)
Internship at the firm	2.906 (2.306)	2.906 (2.281)	0.977 (2.051)	0.977 (2.023)	-0.069 (2.027)	-0.069 (1.990)
Referral	1.818 (1.861)	-5.793 (3.585)	2.909* (1.655)	-3.931 (3.179)	1.700 (1.636)	-4.690 (3.128)
<i>Education (ref. A-level)</i>						
University, Bachelor	2.559 (2.824)	-2.440 (3.708)	2.824 (2.512)	-0.729 (3.289)	3.491 (2.482)	1.132 (3.236)
University, Master	5.301* (2.714)	0.010 (3.521)	7.119*** (2.414)	1.685 (3.123)	7.404*** (2.385)	1.633 (3.072)
<i>Field of study (ref. Informatics)</i>						
Economics	-5.475* (2.808)	-5.475* (2.778)	-1.577 (2.498)	-1.577 (2.464)	-2.656 (2.468)	-2.656 (2.424)
Social Science	-7.325*** (2.754)	-7.325*** (2.724)	-1.829 (2.450)	-1.829 (2.416)	-0.041 (2.421)	-0.041 (2.377)
<i>Study duration (ref. on time)</i>						
Study delay	-0.927 (2.639)	-0.927 (2.610)	-0.801 (2.348)	-0.801 (2.315)	-1.433 (2.320)	-1.433 (2.278)
Uncompleted studies	-5.937** (2.857)	-5.937** (2.826)	-3.657 (2.541)	-3.657 (2.506)	-8.080*** (2.511)	-8.080*** (2.466)
Extra-curricular activities	1.189 (2.343)	1.189 (2.317)	2.356 (2.084)	2.356 (2.055)	1.300 (2.059)	1.300 (2.022)
Very good GPA (<i>ref. fair</i>)	5.369** (2.505)	5.369** (2.478)	5.027** (2.228)	5.027** (2.197)	4.128* (2.202)	4.128* (2.162)
<i>Referral*education</i>						
Referral*Bachelor		9.999** (4.880)		7.108 (4.328)		4.719 (4.258)
Referral*Master		10.58** (4.558)		10.87*** (4.043)		11.54*** (3.978)
Constant	26.59*** (4.341)	30.39*** (4.561)	28.22*** (3.862)	31.64*** (4.045)	31.74*** (3.816)	34.94*** (3.980)
<i>Within employer R²</i>	0.045	0.151	0.107	0.141	0.154	0.193
<i>N applicants</i>	220	220	220	220	220	220
<i>N employers</i>	22	22	22	22	22	22
<i>Employer fixed effects</i>	yes	yes	yes	yes	yes	yes

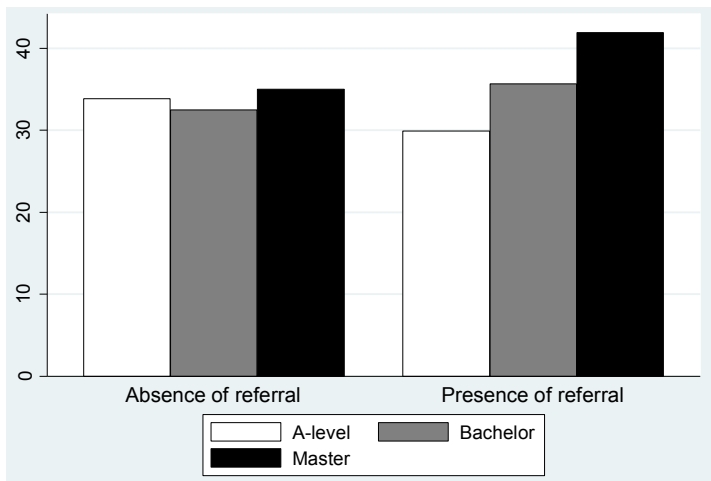
Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure 1. Interaction effects between referral status and educational credentials.

a) Likelihood that the applicant would be hired



b) Likelihood that the applicant, if hired, would be easy to train



b) Likelihood that the applicant, if hired, would fit well with the new working environment

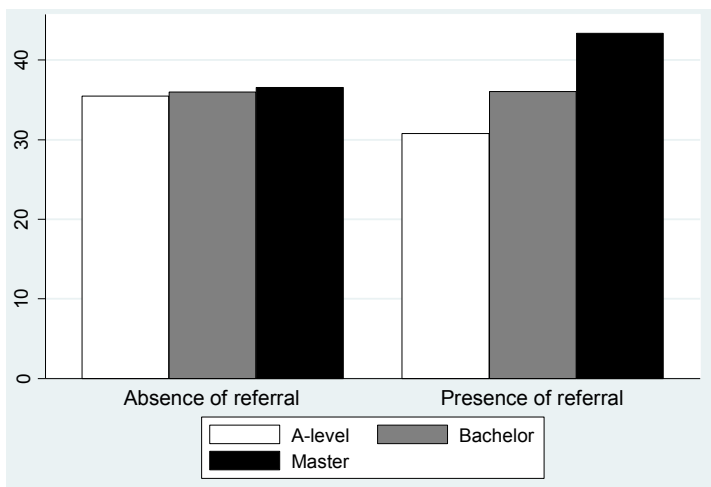


Table 5. Comparison of mean ratings before and after of non-referred applicants. Paired t-tests, one-tailed.

	Hiring propensity	Easy to train, if hired	Fit with corporate culture, if hired
Time1 (second five best-rated)	42.38	51.58	47.08
Time2 (non-referred)	37.38	46.67	42.80
Difference in ratings	-5.00^{***}	-4.92^{***}	-4.28^{**}

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.