Right place, right time: serendipity and informal job matching

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Chance is a prominent feature in the processes by which people become aware of job openings, yet current theories—which emphasize the instrumental job search activities of workers—do not provide a framework for understanding the unsolicited receipt of job leads. The concept of serendipity is discussed as a way to understand the role that chance plays in informal job finding. Interviews with 42 workers in an engineering firm reveal that job information often comes from unlikely sources in unexpected situations. Moreover, nationally representative survey data are used to assess the non-random experience of serendipity, finding that personal, contextual and relational characteristics structure the unsolicited receipt of job leads. The results from this mixed methods approach help to supplement the current theories of job matching and offer a promising research agenda for future investigations of the conditions under which serendipitous job finding is likely to occur.

Keywords: networks, embeddedness, employment, labor markets, rational choice

JEL classification: J01 labor economics

1. Introduction

Chance plays an important role in shaping individual biographies (Bandura, 1982; Becker, 1994). While many social interactions are routine or planned, unexpected interactions are quite common. Impromptu conversations, coincidental meetings or calls from out of the blue pervade everyday lives. Howard Becker (1994) has gone so far as to say that: ‘Most of the things that happen to [people] happen ‘by accident’ (p. 183). These accidents of everyday life can, under the right circumstances, serve as life altering events, setting individuals on entirely new life course trajectories (Bandura, 1982).
But chance also poses a major problem in the analyses of social phenomena. Despite a few exceptions, researchers have tended to ignore the influence of chance occurrences in the lives of individuals rather than directly analysing and theorizing how and why people experience fortuitous encounters (Krantz, 1998). Perhaps nowhere is this point most apparent than in research on the ways that people receive information that leads to new jobs. Economic and sociological theories alike have focused almost exclusively on the role of purposive action in acquiring job information, while remaining silent on the role that chance might play (Stigler, 1962; Lin, 2001). Job searching is described as a rational process of investing in information. While this has long been recognized as a problematic feature of the job search literature (see Granovetter, [1974]1995), most of the research in this area continues to offer a myopic view into the ways that people receive job information. For example, job search equilibrium models assume that people engage in job searches prior to changing jobs and that the effort expended in a job search is positively associated with job rewards (Mortensen, 1986; Christensen et al., 2005). Also, research on the role of network contacts in job search processes assumes that people expand their set of existing contacts in order to find jobs and that instrumental motivation is the driving force behind this networking activity (Lin, 2001).

This study builds on previous critiques by providing a systematic analysis of how chance operates in the ways that people are matched to their jobs and by pointing to several implications of these processes. In-depth interviews with 42 workers in an engineering firm add nuance to many of the currently held assumptions about how people receive job information. The findings show that job information was often received in the absence of a job search. Even when workers had engaged in job searches, the information that they received was commonly provided by unexpected sources and by contacts that respondents had known for many years. Furthermore, investment in relationships involves multiplex and dynamic motivations. In short, the narratives suggest that job finding is a highly uncertain process beset with numerous contingencies and one that belies description as purely instrumental or rational.

These experiences are linked to a theory of serendipitous job matching, which encompasses those situations where routine social interaction unexpectedly leads to opportunities in the labour market. It is useful to distinguish serendipitous job matching from instrumental job matching for several reasons. First, the mere fact that individuals attributed these outcomes to luck or chance or coincidence highlights a distinct subjective understanding (Lieblich et al., 2008). Too often, researchers have dismissed perceptions of chance and luck expressed by respondents as being misguided or uninformed (see Nowicki and Rosse, 2002). This ignores the sociological value of such perceptions that are quite distinct from others who attribute success to rational planning. Second, serendipity is not...
experienced randomly (Merton and Barber, 2004). Many events, encounters and outcomes that are defined by subjects as luck or coincidence are in fact structured by social factors (Schwalbe, 2001). It is difficult to specify the conditions necessary for fortuitous discoveries in advance of those events, even though we can attempt to explain them in retrospect (Becker, 1994). The inability to perceive *a priori* the complexities and contingencies involved in causal processes sets serendipitous encounters apart from other situations. As Bandura (1982) explains: ‘Although the separate chains of events in a chance encounter have their own causal determinants, their intersection occurs fortuitously rather than through deliberate plan’ (p. 749).

The present investigation also draws from nationally representative survey data to explore the non-random elements of serendipity. The results show that the unsolicited receipt of information about job opportunities is significantly associated with a host of social factors, suggesting that socially advantaged workers are the most likely to experience serendipity. This structuring of serendipitous encounters has important sociological implications. The perceived randomness of social interaction and the complex contingencies involved in serendipitous discoveries help to mask the numerous advantages required for these happy accidents to occur. In this way, serendipity helps to disguise the structural advantages associated with social group membership that facilitate access to job opportunities.

The study proceeds with an overview of the approaches to studying job matching processes, followed by a discussion of the concept of serendipity and the role it plays in the informal passage of job information. I then describe the interview data. The analysis lays out a number of general propositions that highlight the key features of serendipitous job finding based on the interview data and on prior research on job matching. This is followed by a discussion and analysis of the social factors that influence the odds of serendipitous job finding. The conclusion points toward broader strategies for theorizing and analysing serendipitous job matching and its relationship with social inequality.

### 2. Searching for jobs

The main theories used to explain job matching characterize the acquisition of job information as an investment process. According to job search theory in economics, people have limited information on the opportunities that are available in the labour market. In order to get a job (or change jobs), workers engage in a job search by seeking out and applying for potential job openings. As such, the job search is conceived of as a rational process of investing in information (Stigler, 1962). Job search behaviour is seen as a trade-off between further investment in job searching versus accepting the current job offers. Greater intensity
(time/effort) of job search activities yields more job offers, but also increases the costs of search (Benhabib and Bull, 1983). According to the optimal stopping rule, workers will stop searching for a new job when the marginal cost of additional search exceeds the value of the best job offer received (Lippman and McCall, 1976). Conversely, new job offers will be accepted if they exceed a person’s reservation wage (the lowest wage for which individuals are willing to work), which is determined primarily by prior wages and the availability of wealth or other economic resources (Devine and Kiefer, 1991). The basic tenets of job search theory have been formalized into the equilibrium search model—a statistical model used to assess how changes in economic factors influence the receipt of job offers (Lippman and McCall, 1976; Devine and Kiefer, 1991). Sociological theories have expanded on this framework by focusing on the role of social connections in providing access to labour market opportunities. For example, in the labour market context, social capital is viewed as an ‘investment in social relations with expected returns in the marketplace’ (Lin, 2001, p. 19). Workers invest in job information by ‘networking’—that is, cultivating contacts with people of higher status and authority—and then making use of the information and influence that these contacts provide in order to gain access to better jobs (Lin, 2001). Like with job search theory, instrumental action is viewed as central to the investment process. The investment activity is purposive and motivated by the desire to acquire job information. This is relatively straightforward in job search theory, where the investment explicitly involves a search for a job, which people would be unlikely to engage in for purposes other than finding a job. According to social capital theory, the resources embedded in a person’s social networks are not reflective of social capital until they are activated through the networking process (Lin, 2001). Social resources provide access to opportunities, but a person must mobilize these resources through instrumental action before the social resources can be considered social capital.

These theories have helped guide many of the empirical investigations into job searching in their respective disciplines (for example, Lin and Dumin, 1986; Flap and Volker, 2001; Christensen et al., 2005; Weber and Mahringer, 2008). While these theoretical perspectives provide accurate explanations of situations where action is motivated by and information is procured through instrumental job search activities, they are ill-equipped to explain job matching achieved in non-instrumental ways.

3. **Serendipitous job finding**

Non-instrumental access to job information has received far less attention in the research literature. However, several researchers have characterized career processes as serendipitous. Serendipity refers to discoveries that are made by accident
Merton’s (1948) analysis of the process of scientific discovery offers the most well-known application of serendipity. The serendipity pattern involves the unanticipated observation of anomalous findings that lead to the development or extension of theory. Serendipitous discoveries also abound in career processes (Krumboltz, 1998). For example, Jackall’s (1988) research details how managers were keenly aware of the capriciousness of life in work, as they noted numerous times when advancement in their company was due to factors beyond their control. Moreover, serendipity is common in career processes, with more than half of survey respondents in various samples noting that chance events played a role in influencing their careers (Betsworth and Hansen, 1996; Bright et al., 2005).

Still, much remains unknown about how and to what extent serendipity influences careers. Here the focus is on serendipity in the ways that people gain entry into their specific jobs. In the context of job matching, serendipity is a fundamentally social process facilitated by personal contacts that provide assistance at opportune times. It is therefore necessary to examine the unintended consequences of social interaction that lead to job matches. The first issue to consider is the process by which people receive information about job openings without seeking it out. Prior research has noted that many people change jobs without engaging in a job search (Granovetter, 1974). These transitions are facilitated by the unsolicited receipt of job information. However, recent quantitative analyses of ‘non-searching’ provide little detail on the process by which this information is received. Are these workers really not looking for work or are they simply responding in a socially desirable way? Also, to what extent do informal job search activities lead directly to job information that results in job changes? Prior research presumes a direct linkage between job search activities and employment transitions, but even among people who are searching for a job, job information may come from unlikely sources in unexpected situations.

Third, the process by which people seek out job information remains under-theorized. The focus on ‘networking’ in the research literature may not capture the full scope of job search activities. When people need to find work, do they attempt to broaden their networks by engaging in networking behaviour (as suggested by current theories)? Or are they more likely to draw on their existing social resources? Finally, it is necessary to consider the motivations for engaging in the kinds of relationships that provide job finding assistance. Social capital theory implies that relationships with job contacts are forged and maintained principally by instrumental motivations. Yet, people engage in relationships for a variety of reasons—both instrumental and non-instrumental—and it remains unclear the extent to which people benefit from these varying forms of action in the labour market.
Moreover, the broader sociological implications of serendipitous job matching have not been fully drawn out. In the career counselling literature, the recognition of chance elements in careers has led to the development of the Chaos Theory of Careers (Bright and Pryor, 2005), which eschews prediction and sets as its goal the description of career trajectories marked by fortuitous events. This is an important research endeavour, but the theory glosses over a fundamental issue—that serendipity is not experienced entirely at random. The skills and interests that individuals develop and maintain shape their social milieus, which in turn structure their opportunities for chance encounters of one kind or another (Bandura, 1982). Also, I argue that—beyond skills and interests—social structural characteristics help to make serendipitous encounters possible. Consequently, the unanticipated character of serendipitous job matching masks the social advantages that engender these opportunities.

4. Qualitative data collection procedures

The qualitative analysis draws from a study of workers in a large aeronautical engineering firm located in the northeastern USA. The company’s revenue is derived primarily from contracts with the US Air Force and with the commercial airline industry. I was given permission to interview 166 workers who were employed within two workgroups of the company. The workgroups were primarily composed of aeronautical engineers, but also included logistical support staff, financial analysts and administrative personnel. Workers within both groups were responsible for providing technical support for military contracts. The sample is predominantly male (86%) as is the aeronautical engineering occupation as a whole (~90%, according to the Census 2000 Equal Employment Opportunity database).

There are a number of reasons to study this unique set of workers. First, they have successfully gained employment in the high-wage, primary job sector of the economy. Many researchers have focused on the ways that disadvantaged individuals rely on their connections to improve their social condition, but it is equally important to study the processes by which certain individuals are able to gain access to advantaged labour market positions. Second, skilled jobs require specific markers for training, in terms of educational credentials, certifications and other concrete demonstrations of skill. Given such specific skill criteria, Holzer (1996) argues that social connections are less likely to influence hiring processes. Indeed, analysis of the NLSY79 data set (McDonald, 2004) reveals that informal job matching activity during the middle of the work career is somewhat lower among engineers than among other kinds of jobs. All of this suggests that the sample used in this study will likely offer a conservative assessment of informal hiring processes.
The data collection involved two phases. First, a short web survey was used to find out how workers first got their jobs at the company. The web survey—administered between October 2004 and January 2005—was initiated by an e-mail from a supervisor, informing workers that they would soon receive an invitation to participate in the web survey. A total of 110 workers responded to the survey for a response rate of 66.3%. The web survey was used to collect basic demographic information from respondents, in addition to information regarding how they found out about their jobs. The responses to these questions were used to differentiate between the 58 individuals who found out about their jobs through a formal job search and the 52 workers who found their jobs through a personal intermediary.

During the second phase, I attempted to interview the 52 workers who found their jobs through informal means. The interviews were conducted over the telephone during February and March of 2005 and each person was offered $25 to complete the interview. After a number of follow-up attempts were made to contact the respondents, workers were given an option of filling out a questionnaire containing the questions that were asked during the telephone interviews. In the end, 42 of the 52 workers completed either the telephone interview \( (n = 28) \) or the questionnaire \( (n = 14) \), for a response rate of 80.8%. Of the 42 respondents, 33 were engineers, 5 were logistical support staff, 3 were administrative personnel and 1 was a financial analyst.

The semi-structured interviews and the questionnaire consisted of both open- and close-ended questions designed to gain detailed information on how each worker found out about their jobs and the actions they took to facilitate the receipt of this information. Specifically, workers were asked how they found out about their current jobs, who had passed along the information, how the respondent had gotten to know the contact, the nature of their relationship and the context of their receipt of the information. The interviews were relatively short (averaging about 10 min), since they focused only on the processes surrounding the most recent job match. Interviews were recorded and then transcribed shortly thereafter, producing 139 pages of data. Not surprisingly, the semi-structured telephone interviews produced responses that were more detailed than what was obtained through the questionnaire. However, the telephone interview and questionnaire respondents were very similar in terms of the characteristics that they reported from the web survey. Moreover, the job-matching processes described by respondents did not differ appreciably across the two modes of data collection.

Using standard memoing techniques, I examined the data and grouped experiences that were similar conceptually. The coding schemes were then
verified and refined through extensive comparison of the cases. Subsequent analyses helped to identify the cases that best illustrate (as well as anomalous cases that deviate most from) the various job finding processes reported by the respondents. A number of themes described below emerged from the narratives. In short, the experiences of the workers highlight the prominence of non-instrumental actions in job finding and underscore the role that chance plays in the ways that people become aware of job openings. All names presented here are pseudonyms to protect the anonymity of the respondents.

5. Serendipity and job finding

5.1 Proposition 1: People often receive job leads through their contacts without engaging in a job search

According to job search theory, the number of job offers that workers receive is a function of the intensity of their job search. Job search models generally assume that people who do not engage in a job search do not receive job offers (for recent examples, see Christensen et al., 2005; Weber and Mahringer, 2008). Contrary to this assumption, workers often receive information that leads to new jobs without actually engaging in a job search. ‘Non-searchers’ make up a substantial proportion of workers in the USA—between 25 and 35% of all employed workers (Campbell and Rosenfeld, 1985; McDonald, 2004), yet they have received little attention in the empirical literature. Empirical analyses in economics focus almost exclusively on job seekers rather than on all workers matched to their jobs (Granovetter, [1974]1995), as researchers either assume that all people who changed jobs engaged in some search activity (e.g. Kahn and Low, 1982) or simply exclude from analyses all workers who did not search for their jobs (e.g. Holzer, 1987). As in economics, the research questions in the sociological literature also tend to focus on job searching rather than job matching. Consequently, the current theories of job matching lack a coherent framework for understanding the many workers who get their jobs without engaging in a job search (Granovetter, [1974]1995).

Much remains unknown about non-search processes because the few existing examinations of non-searching have been based almost exclusively on quantitative analyses (e.g. Campbell and Rosenfeld, 1985; Elliott, 2000; McDonald and Elder, 2006). Several workers in my sample received their jobs in the absence of a job search. In the web survey, workers were asked ‘Were you looking for work when you found this job?’ Based on that question and on the follow-up questions from the interviews, 13 of the 42 workers that I interviewed were
found to be non-searchers. This suggests that close to one in three informally matched workers got their jobs without actively engaging in a job search. While non-searchers represent a substantial proportion of informally matched workers, it is interesting to note that the percentage of non-searchers in this sample is lower than the national average (McDonald and Elder, 2006). This may partly be due to the uniqueness of engineering, which tends to report slightly lower percentages of non-searching than most other occupations. Nonetheless, the exact proportion of non-searching in the labour market is not of central concern for this investigation. Of greater importance is the process by which non-searchers received their jobs. During the interviews, I asked respondents to elaborate on how they heard about their jobs. The example of how Phil (an engineer) found out about his job illustrates the ways that people who are not looking for work are able to receive unsolicited job leads from their personal contacts:

Phil: ‘Someone who worked with me at [a different employer] had transferred to [the company] and they were looking for some people [to work on] business development proposals. And he called me up and asked if I was interested.’

With quantitative data, it is difficult to know what a worker means when she says that she is not looking for work. ‘Not looking’ could entail a variety of activities, including keeping an ear open for job opportunities or even occasionally checking the want ads. People might over-report non-searching if searching for a job is perceived as a less than desirable activity (Granovetter, 1974). During the interviews, workers were asked about the specific job search activities that they might have engaged in passively. While there is some variability in the search activities of non-searchers, most were truly not looking for work at the time that they received their job leads. Ten of the thirteen non-searchers who were interviewed did not engage in any search activity (see Table 1). The remaining three non-searchers (Curtis, Justin and Lou) occasionally skimmed the want ads or posted a résumé online. One of these three (Justin), actually found his job this way; he was simply flipping through the paper and saw an advertisement that he followed up on. His was clearly an exceptional case. All the other non-searchers received their job information through a personal intermediary and the job information was completely unsolicited. Most non-searchers had not been looking for work, but still received information through their personal contacts.

Overall, 14 of the 110 people that completed the web survey answered ‘no’ when asked if they had looked for work at the time that they found their job. Two of the non-searchers identified in the web survey refused to be interviewed. Plus, one respondent claimed to have been looking for work when he filled out the web survey, but denied it during the telephone interview, claiming that he had made a mistake. He is counted as one of the 13 non-searchers in the subsequent analysis.
5.2 Proposition 2: The effort expended in cultivating social contacts is often unrelated to the amount and quality of the information or help that people receive from their contacts

According to social capital theory, job information is a product of the investments that people make in social relationships. People develop contacts with individuals of higher status and authority in order to receive job information (Lin, 2001). Networking requires ‘extraordinary effort’ (Lin, 2001, p. 53) because it involves mobilizing contacts that extend outside of an individual’s normal social circle. And yet, for many people, job information is received via relationships that have spanned many years and that have involved very little interaction at all (Granovetter, [1974]1995). All that is required is one chance meeting to set the process in motion, as illustrated by the experience of Lou (a logistical support staffer).

Lou: ‘I had a friend who works for [the company], I worked for him when I was in the Air Force. He knew the job was coming open and I was perfect for the job. We got lucky; through Classmates.com he found me and contacted me.’

Lou’s example illustrates how job information can be passed informally with very little investment in the maintenance of a personal relationship. He had not talked to his contact for five years and yet still ended up receiving information that led to a new job.

The effort expended in networking is a relatively poor predictor of the amount and quality of job information that people receive. Workers who actively search for their jobs often receive worse jobs than workers who do not engage in a job search (Granovetter, [1974]1995; McDonald and Elder, 2006). The non-searchers

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**Table 1** Non-searchers’ job search activities, use of contacts and receipt of job information

<table>
<thead>
<tr>
<th>Non-searchers</th>
<th>No search at all</th>
<th>Contact</th>
<th>Unsolicited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ben</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chad</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Curtis</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Fred</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Hayden</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Jake</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Jamal</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Justin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lou</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Michelle</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Phil</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Tom</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
and active searchers that I interviewed did not differ substantially in the authority level of their jobs (see Table 2). Non-searchers’ contacts, however, provided more help in the hiring process than the contacts of the active job seekers. Furthermore, non-searchers and active searchers reported virtually no difference in the amount of job information that they received at the time that they were hired, despite the fact that one group was actively looking for work and the other group was not. The active searchers had known their contacts for a longer period of time and had formed stronger ties with their contacts than the non-searchers. This suggests that active searchers had invested more in their contacts than the non-searchers, while failing to receive commensurate benefits. These findings help to extend Granovetter’s weak tie hypothesis (1973) by indicating that serendipitous job information tends to flow through connections that are weakly maintained.

I also examined the intercorrelations between these aforementioned factors among the entire sample (results available on request). The results suggest that the investments that workers make in their relationships (in terms of the number of years workers had known their contacts and strength of the relationships with the contacts) are not significantly correlated with (i) the amount of help that the contact provided, (ii) the amount of job information that respondents received prior to being hired, and (iii) the authority level of the job they received.

5.3  Proposition 3: When people need to find new jobs, they draw from their existing social resources rather than developing new contacts

Networking among workers has been described as a common and highly effective way of procuring job information (Baker, 1994). According to social capital

Table 2 Descriptive statistics for selected characteristics for non-searchers and active job seekers

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>Non-search</th>
<th>Active search</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority level of job†</td>
<td>1–3</td>
<td>2.08</td>
<td>2.04</td>
</tr>
<tr>
<td>Years known contact when hired</td>
<td>0–41</td>
<td>6.45</td>
<td>9.01</td>
</tr>
<tr>
<td>Strength of relationship with contact‡</td>
<td>0–4</td>
<td>1.92</td>
<td>2.36</td>
</tr>
<tr>
<td>Help received from contact§</td>
<td>1–4</td>
<td>2.42</td>
<td>2.07</td>
</tr>
<tr>
<td>Amount of information received from contacts when hired‖</td>
<td>0–3</td>
<td>1.64</td>
<td>1.70</td>
</tr>
</tbody>
</table>

†Based on the company’s own authority ranking system.
‡0, never met; 1, work contact; 2, work friend; 3, friend and 4, family.
§1, pointed to a position opening; 2, passed on the application to the hiring supervisor, 3, put in a good word with the hiring supervisor and 4, made the hiring decision.
‖At the time of hire, amount of information routinely received from personal/professional contacts: 0, none; 1, very little; 2, some and 3, a lot.
theory, networking serves as the fundamental mechanism by which people acquire job information (Lin, 2001). In order to find a new job, workers break out of their close-knit social circles to develop relationships with people of higher status and authority. However, others have argued that when people need to find new jobs, they are more likely to draw from their existing set of social resources than to invest in new ones (Granovetter, 2005). In this way, networking may be an exception to the normal ways that people get their jobs.

The networking perspective is hampered by a number of problematic assumptions. First, because networking involves opportunity costs, people need to assess the relative utility of others and decide with whom to interact. This assumes that people can accurately calculate the relative utility of others. Yet under conditions of uncertainty, people do a rather poor job of calculating the marginal utility of an investment (Beckert, 1996). Second, is economic utility of primary importance to the process of developing and maintaining relationships? People tend to choose friends that are of similar social status rather than 'reaching up' to develop friendships with powerful others (Verbrugge, 1977), which suggests that goal-directed networking behaviour is not reflective of the ways that most relationships form. Furthermore, workers receive their job information from a variety of relationships, not just weak ties to higher status individuals. Third, the networking approach also assumes that people choose with whom to interact. This characterization is grossly oversimplified. People often interact with others because of their closeness in proximity to others, which is determined just as often by social structural characteristics as by personal choice. For example, Remy (an engineer) stated, 'I deal with the customer, which exposes me to go into [Air Force] bases and meet people from different companies that are doing similar work ... So I do have access to both the internal and external [contacts]'. Contrast this with a comment made by Tonya (an administrative assistant): 'I need to take care of people here in my department. I work for my supervisor directly. That limits [my interactions with] people outside'. In this way, the kinds of work arrangements that people have shape their opportunities to develop relationships with useful work contacts. Finally, networking behaviour involves ulterior motivations and therefore these relationships often lack sincerity, a highly valued characteristic of social exchange (Blau, 1963). Without sincerity and trust, relationships tend to be unrewarding (Granovetter, 2003) and job information is unlikely to be transferred (cf. Ehrenreich, 2005; Smith, 2005).

Almost all of the workers that I interviewed claimed that networking was an important part of finding a good job. They noted that contacts to people that work in related fields are paramount for advancing one's career. The workers varied in the ways that they went about developing and maintaining their professional contacts. Some, like Fred (a logistical support staff member),
consciously constructed a network of people in order to maximize potential job opportunities in the future:

Fred: ‘[B]asically I build a network of people as I move from one job to the next job. I always have opportunities and always try to keep doors of communication open with people. I’m not necessarily looking for a job, but in case I decided to change jobs you know or look for something different you have that contact’.

Many of the other respondents were indifferent to this strategy and admitted a general dislike for engaging in networking activities. Juan (an engineer) stated that, ‘I’m not very good at it, but I would say it’s important’. Much of the concern about networking activities stemmed from an apparent lack of sincerity. Consequently, a number of the workers stated a preference for developing relationships that contained a non-work component as well. Trent (an engineer) suggested that, ‘the informal day-to-day networking with people outside the company is probably more effective than going to conferences and things like that’.

The workers recognized the value of maintaining relationships with friends and the people with whom they worked, although relatively few went out of their way to develop contacts with higher status individuals with the expressed purpose of finding a job. Only one person received his job information as the direct result of the type of networking described in the research literature. Derek (an engineer) attended an industry conference and introduced himself to one of the speakers. The person that he met passed along Derek’s resume to several people in the company, eventually leading to Derek’s hiring. Derek’s example is unique, because it is the only situation where the informal help came from a relationship that was formed with the expressed intent of gaining employment. In almost all of the other situations, the workers received their job information from people that they had already known.

These findings suggest that networking often lacks a purely goal-directed motivation and takes place in commonplace interactions that characterize relationship maintenance processes. Brandon (an engineer) provided an example of this more common form of networking activity:

Brandon: Six months before graduating from college, ‘I had an interview with [the company] at the campus . . . but then they went into a hiring freeze within a month or two after that interview’. Several months later, when Brandon was on a job interview with another company in the area, ‘I decided to stop off and see some friends who were working for [the company] and that’s where I found out that they were hiring again for the job that I wanted’.
Brandon was merely stopping off to see some friends that he had met years earlier while he was still in college. His visit had the unintended consequence of revealing information about a job opening. He explained that, 'The most important thing I’ve found in finding a job is being at the right place at the right time.’

5.4 Proposition 4: Relationship investment involves multiplex and dynamic motivations

Extant theories are based on a rational action framework that views the acquisition of job information as instrumentally motivated. Lin (2001) notes that, ‘Instrumental action...motivates investing—seeking out and mobilizing—in relations and connections that may provide access to social resources’ (p. 53). In other words, people invest in their social relationships in order to increase their economic, social and political resources (Lin, 2001). While these are accurate descriptions how some people get their jobs, the exclusive focus on instrumental action ignores the role of non-instrumental action in informal job-matching processes. Much of the job information that people receive through their personal contacts is unexpected and unsolicited. In instances such as these, the investment activity that facilitated the information exchange can hardly be described as instrumental. People often receive job leads from relationships that were formed and maintained for reasons unrelated to the need to acquire job information. Even when workers actively engage in a job search, they can still receive unexpected job information. Consider the following example offered by Lee (an engineer):

Lee: ‘My mother one day ran into a neighbour whose husband worked at [the company]. The neighbour asked about me, what I was doing since I graduated, etc. My mother told her I was looking for something like a technical writing job. The neighbour told her husband about this encounter that night when he came home from work. The neighbour’s husband happened to have previously worked in [the department that Lee was eventually hired into]...and still knew folks in that department. He also happened to know they were looking for a few new trainee types. I got a call from my mother with the name and number of the [department] manager.’

Even though Lee was looking for work, he was not expecting to receive a job lead via his former neighbour. As such, the information that he received was not the direct result of his job search. While an active search may be considered an investment in social resources on the part of the worker, a job seeker’s receipt of job information may be unrelated to that investment. Close to half of the workers that I interviewed (n = 19) found their jobs in this way, engaging in a search that did not directly influence their receipt of job information from their
contacts. This is because the relay of job information is deeply embedded within everyday interaction routines—social amenities, personal inquiries, gossip and the like. Labour market institutions and expressive socialization routines often intersect in the context of social interaction to produce a mixture of economic and social motivations that cannot be described solely by self-interest (Granovetter, 2003).

To the extent that people engage others with purposive motivations, the reasons for interacting do not always match the desired outcome. Friends serve many roles in life and provide a variety of useful resources, both intended and unintended. It is relatively common for people to become friends for reasons unrelated to their careers, but then pass along information that leads to a new job. Consider the example of Dante, who found out about his job through his fiancé at the time (they are currently married). They had known each other for 4 years when, upon graduating from college, she was hired by the company. Her taking on the new job meant that they would have to relocate and Dante would have to quit his job. So his fiancé worked with her hiring supervisor to help get Dante a job with the company. In the end, Dante gained access to the company thanks to his relationship with his fiancé. It seems unlikely that he developed his relationship with her because he thought she could get him a job someday.

The relationships that provide job information can also span long periods of time. Some of the workers had known their contacts for up to 41 years. Many of the workers received their job information from their fathers. In instances such as these, it is difficult to conceive of the initial interaction of these long-term relationships as being motivated by the instrumental desire to get a job someday. Motivations for maintaining relationships also change over time. A young person might maintain a relationship with an uncle primarily due to family obligation. But as that young person grows up and begins her work career, she might find that uncle to be a valued resource for gaining access to a good job. In the end, the motivations for engaging in relationships that eventually provide job leads are multiplex and dynamic and do not derive solely from economic interests.

6. **Structuring serendipity**

Many of the experiences described above serve as examples of serendipitous encounters that reveal labour market opportunities. While these experiences are unexpected from the point of view of observers, they do not occur randomly. Serendipitous discoveries are embedded within a set of causal sequences that can be analysed and explained retrospectively. Precise prediction of serendipity may not be possible due to the element of randomness and contingencies involved.
in such processes, but the general factors that facilitate these happy accidents can be specified.

The experience of chance events has long been associated with personal attributes. The definition of the term serendipity also highlights the role of individual skills and abilities, noting that serendipity involves both chance and sagacity (Merton and Barber, 2004). That is, the experience of serendipity requires not only the unexpected encounter, but also that the observer recognize the value of the discovery. Particular events, information or evidence may lack value for most, but for the astute observer the experience presents a unique opportunity. The importance of personal attributes in uncovering opportunities has led some to identify certain individuals as ‘serendippers’: people with a natural talent or gift for making serendipitous discoveries (Merton and Barber, 2004). The emphasis on sagacity therefore considers what people do with the knowledge that they receive. A relatively unexplored issue, though, relates to the antecedents of serendipitous encounters. Few have considered the factors that structure the experience of serendipity.

Certain personal qualities may hasten the receipt of unsolicited job information. For example, one would expect gregarious individuals to receive more job leads than the reclusive. Prior research provides indirect support for this assertion (Kanfer et al., 2001), although this line of research has tended to focus on job offers obtained through an active search rather than through non-search. Personality characteristics are also shown to be related to network structure, such that the most gregarious, outspoken and independent-minded business individuals tend to maintain larger and weakly tied social networks than others (Burt et al., 1998). These network features are likely to be positively related to the unsolicited receipt of job information.

Other individual characteristics—such as education—may influence the receipt of job information in a number of ways. First, individuals may develop a set of knowledge and skills that can help people to identify and gain access to social environments rich in information. Second, education might serve as a signal of qualification that may make job contacts more or less willing to pass along information about job openings. Third, education might serve as a social credential that allows for access into groups, clubs or other exclusive social milieus. Empirically, it would be quite difficult to distinguish between these different processes, though on balance it is reasonable to assume that highly educated individuals would tend to receive more unsolicited job leads than the less well educated.

Similarly, gender, race and social class are likely to be related to the receipt of job leads. These characteristics also serve as social credentials that provide or hinder access to social contexts where job information is passed. These factors may also signal suitability for various kinds of employment. Research
on labour market segregation has emphasized the gendered and racialized character of various jobs (Tomaskovic-Devey, 1993). Suitability for jobs is assessed against this collective cognitive template. This may operate directly through overt discrimination, statistical discrimination or socio-cognitive stereotyping (Reskin and Bielby, 2005). Regardless of the process involved, white males likely receive more job leads than women and racial minorities. In similar fashion, upper class individuals are likely to receive significantly more information about job possibilities than members of the middle and lower classes.

A host of contextual factors can also be expected to influence the receipt of job information. Research on social isolation (e.g. Wilson, 1987) and spatial mismatch (e.g. Fernandez, 2008) both highlight the importance of context and proximity to jobs and job information. In general, residence in urban and suburban environments should yield greater access to job information, though residential segregation within such environments is likely to lead to isolation from jobs and job contacts for people in disadvantaged neighbourhoods. Voluntary organizations also serve as environments rich in social interaction and the transfer of information about employment opportunities. The more of these kinds of organizations that individuals participate in, the greater their chance of receiving unsolicited job leads. Social interaction within work settings provides opportunities for serendipitous discoveries (Nahapiet and Ghoshal, 1998). As noted in the interviews, some workplaces offer more opportunities for social interaction than others.

Perhaps most importantly, relational characteristics influence the amount of job information received. On average, people who have an expansive set of high-status social contacts are more likely to receive unsolicited information about job opportunities. As mentioned earlier, much of the prior research in this area has focused on how people acquire job information rather than on how they receive it. So while there is a substantial research literature on how people use social networks to search for their jobs (for a review, see Marsden and Gorman, 2001), less is known about the relationship between social network resources and the receipt of unsolicited job leads. It remains probable that information about job opportunities is received by people with access to the best social resources, while others must search in order to find out about job leads.

6.1 Quantitative data collection and measurement

These specific issues were not explored as part of the qualitative interviews. Therefore, I draw from quantitative data from the Social Capital-USA survey to examine variation in the receipt of unsolicited job leads. SC-USA is a nationally representative, telephone survey (random-digit dialed) of US adults aged
22–65 who were currently or previously employed at the time of the survey. In all, 3000 structured interviews (averaging 35 min) were conducted from November of 2004 to March of 2005, for a response rate of 43%. Ten cases are excluded from the analysis due to missing values. SC-USA is a unique data set because of a question which asked respondents to, ‘think of the last 12 months, did someone mention job possibilities, openings or opportunities to you without your asking, in casual conversations? (This may include face-to-face, telephone, email, fax, etc.)’. Respondents who received a job lead through their routine conversations were then asked about how many of these job opportunities that they had heard about in the last year. These questions were used to construct a single indicator of the number of job leads received in the last year.

Although personality characteristics were not measured as part of the SC-USA survey, several other individual characteristics can be analysed. Education is a five-category variable, ranging from (1) less than high school to (5) graduate or professional degree. Race and gender differences are examined with a dummy variable which equals 1 for white men and 0 for women and racial minorities. Social class is a subjective, self-reported measure ranging from (1) lower class to (5) upper class. Missing responses were set to the median category—middle class. Urbanicity is a three-category variable with values for (1) rural, (2) suburban, and (3) urban residence, obtained by linking phone numbers to Metropolitan Statistical Areas. Another variable examined is a count of memberships in up to 10 different types of voluntary organizations, including political, professional, religious, neighbourhood and educational organizations. Work contact is measured by a question asking, ‘How often do you need to make contact other people at work?’ Responses range from (1) almost never to (4) frequently. Currently unemployed workers reported contact at their most recent jobs.

The social capital variables are derived from the position generator approach to measuring resources embedded in occupational networks (Lin and Dumin, 1986). Respondents are asked, ‘Do you know anyone among your relatives, friends or acquaintances that has one of the following jobs?’ (‘Knowing’ means that you and the person can recognize and greet each other.) The list of 22 occupations captures the scope of positions in the occupational hierarchy: from janitors and hairdressers to lawyers and CEOs. Based on these questions, I calculate two indicators of social capital. First, network extensity is a measure of the total number of positions accessed by respondents. Second, network prestige refers to the highest prestige score of the occupations to which respondents had access (using the Standard International Occupational Prestige Scale). This variable spans from 0 (for respondents who have access to zero positions in the generator) to 85 (for respondents who said they knew a Congressperson).
6.2 Quantitative analysis

Bivariate correlations are employed to test the extent to which the personal, contextual and relational factors are associated with the receiving job leads. The results are presented in Table 3, along with the means and standard deviations for the variables. The first correlation column shows the bivariate Pearson’s correlations between the number of job leads received and the independent variables. All of these factors are associated with the receipt of job leads. Education is positively associated with job leads. White males receive significantly more job leads than women and racial minorities. Significant differences in job leads are also apparent across social class, with upper and upper middle class individuals receiving more job leads than people in the middle and lower classes. Urbanicity is positively and significantly associated with the number of job leads, with subsequent results showing that both urban and suburban residents receive significantly more job leads than rural residents. Memberships in voluntary organizations are also positively related to the number of job leads received. The amount of contact required as part of a job is also positively and significantly associated with job leads. Finally, relational characteristics are associated with the receipt of job information. The number of contacts (network extensity) and the highest prestige of contacts are positively associated with job leads received. In sum, these findings are consistent with the stated expectations of how the unsolicited receipt of job information is facilitated by personal, contextual and relational factors, providing support for the notion that what we refer to as serendipity is in fact structured by the social world.

7. Conclusion

The findings presented here highlight the unpredictable character of the processes by which people become aware of job openings. Serendipity abounds in job finding, as people often receive job information without engaging in a job search. Even when a search is utilized, people frequently receive job leads in unexpected ways. Also, information often comes from existing social relationships that were neither developed nor maintained for expressly instrumental purposes. At the same time, serendipity is not experienced at random, as receiving job leads is associated with various social characteristics. Consequently, it is necessary to take serendipity seriously in our theories. The prevailing theories of job searching provide partial explanations for how people are able to gain access to job openings and should therefore be supplemented in order to provide a more nuanced account of the ways that people become aware of job openings.

In contrast to the rational action framework underlying job search and social capital theories, the theory of serendipitous job finding highlights the role of
Table 3 Descriptive statistics and Pearson’s correlations for job leads and other relevant variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Job leads</td>
<td>1.193</td>
<td>0.063</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2 Education</td>
<td>2.645</td>
<td>0.025</td>
<td>0.075*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 White male</td>
<td>0.331</td>
<td>–</td>
<td>0.064*</td>
<td>0.112*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Social class</td>
<td>2.858</td>
<td>0.018</td>
<td>0.037*</td>
<td>0.274*</td>
<td>0.062*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Urban</td>
<td>2.044</td>
<td>0.019</td>
<td>0.047*</td>
<td>0.174*</td>
<td>0.031</td>
<td>0.067*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Organization memberships</td>
<td>1.732</td>
<td>0.036</td>
<td>0.111*</td>
<td>0.381*</td>
<td>0.037*</td>
<td>0.223*</td>
<td>0.052*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Contact at work</td>
<td>3.560</td>
<td>0.021</td>
<td>0.064*</td>
<td>0.197*</td>
<td>0.097*</td>
<td>0.125*</td>
<td>0.016</td>
<td>0.162*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Network extensity</td>
<td>6.686</td>
<td>0.083</td>
<td>0.098*</td>
<td>0.266*</td>
<td>0.028</td>
<td>0.139*</td>
<td>0.008</td>
<td>0.427*</td>
<td>0.137*</td>
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<tr>
<td>9 Network prestige</td>
<td>67.018</td>
<td>0.372</td>
<td>0.068*</td>
<td>0.302*</td>
<td>0.056*</td>
<td>0.171*</td>
<td>0.092*</td>
<td>0.328*</td>
<td>0.147*</td>
<td>0.636*</td>
<td>1</td>
</tr>
</tbody>
</table>

n = 2990; *P < 0.05.
Source: Social Capital-USA Survey.
multiplex and dynamic motivations, routine socialization processes and unanticipated consequences. Action is not absent from serendipitous job finding. People expend various amounts of time and effort in developing and maintaining their relationships. The receipt of information through personal intermediaries is reflective of an investment process, as these relationships often yield dividends in the form of job leads. However, the action involved in social investment commonly lacks an expressly instrumental motivation. Bourdieu (1986) has noted that social capital may be acquired both consciously and unconsciously. More recently, Kilduff and Tsai (2003) differentiate between goal-directed and serendipitous network processes. Serendipitous networks develop through happenstance and everyday interaction rather than through purposive action designed to complete a goal. Also, Lin (2006) has recently pointed out that direct mobilization of resources on the part of workers is not necessary to receive benefits in the marketplace—accessed resources may play a latent or invisible role in the ways that people receive unsolicited job information through routine social interactions. These are all welcome and necessary developments for understanding informal job matching.

Furthermore, the non-random experience of serendipitous encounters has important implications for social stratification and mobility processes. Many of the labour market successes that people attribute to luck are actually rooted in individual and social structural factors. The unexpected and largely unpredictable character of serendipitous encounters helps to mask the social advantages that aid in their production. Just as people exaggerate the contribution of their individual efforts to succeed, while downplaying the help that they get from others (DiTomaso et al., 2003), individuals are also more likely to attribute success to luck than social connections. As such, the study of serendipitous job matching holds the promise of unpacking hidden mechanisms of social advantage that contribute to the reproduction of inequality within society. Future research should therefore explore variation in the prevalence and processes of serendipitous job finding across (a) social groups, (b) distinct occupational and social milieus, (c) careers, and (d) generations.

Future studies should also consider what can be done to improve the employment prospects of workers who are least likely to find their jobs serendipitously. One option would be to implement social programmes to enhance the social resources of disadvantaged workers (for example, see Linnehan, 2003) in the hopes that building a diverse set of social connections will produce opportunities for serendipitous job finding. Such interventions should be targeted at early career individuals for a number of reasons. Economic disadvantage is especially acute in the young adult labour market and switching occupations/industries is critical for advancement in the labour market among low-wage workers (Andersson et al., 2005; Boushey, 2005), so young workers are likely to benefit
from serendipitous job changes. Also, young adulthood serves as a critical moment of divergence in economic trajectories, as economic inequalities expand across the life course (Maume, 2004). Furthermore, trusting relationships take time to develop, which is why attempts to foster connections through purposive networking can be ineffective, especially when this is attempted midstream in the life course (see Ehrenreich, 2005). Alternatively, Jencks (1972: 8) argues that rather than trying to ‘equalize luck’ among individuals, we should try to neutralize its effects by promoting greater equality in the reward structure of the economy. Improving the quality of low-end jobs—through, for example, targeted wage increases and the extension of health benefits—would help to minimize the negative consequences of being in the wrong place at the wrong time.

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