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Is Unemployment a Consequence of Social Interactions? Seeking for a Common Research Framework for Economists and other Social Scientists

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This article aims to summarize the existing body of literature on social interactions and their effect on individual unemployment status. Two directions of the ongoing research are analyzed: the impact of social norms on unemployment and the importance of social networks in the job search process. Pointing out that the difficulties encountered in research are largely, but not entirely, the result of data constraints, this article assumes that the roots of the problems exhibited by current research might be found in the lack of common approaches among economists and other social scientists. In line with these ideas, there are two main strategies which could lead to a more accurate demonstration of the fact that group memberships plays an important role in the determination of individual economic outcomes. The first one concerns both the necessity of testing the viability of assumptions including more qualitative variables, as well as the need of supplementing the existing research with new inquiries regarding labor market outcomes of individuals. The second one, representing the core idea of the paper, requires that statistical, quantitative evidence should be combined in the future with qualitative studies and experiments.

JEL Classification: A13, A14, J64, Z13

Keywords: social interactions, social norms, work norms, regional unemployment, social networks, subjective well-being

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1. INTRODUCTION

Social interaction models are defined in economic literature as models in which the preferences, information or outcomes of different agents are more likely to be affected directly by other agents' behavior, than by price systems or utility maximizing strategies. The central idea of these models is that individuals interact locally, with a set of neighbors or a certain reference group (Conley and Topa, 2003).

Building on a long history of sociological research on communities[1], the study of social interactions and their effects on individual behavior has lately generated a multidisciplinary research agenda. Economics, sociology, geography and other social sciences have created their own tools and terminology, leading to a controversial area of inquiry.

An important attribute of social interactions research is that, to a certain extent, the main focus of analysis was set on disseminating social and psychological issues. A partial list of such studies include, topics regarding residential segregation (Schelling, 1971), racial inequality (Loury, 1977), variation in crime rates (Glaeser, Sacerdote and Scheinkman, 1996), educational outcomes and school dropout in the United States (Crane, 1991) and the adoption and diffusion of new technologies (Goolsbee and Klenow, 2002).

While social interactions, broadly defined as including the impact of **social norms, role models** and **networks** on individual behavior, are a fundamental part of the sociological discourse, they have only recently begun to play an increasing role in economic thinking. Following the narrower view that economics is primarily concentrated on the study of markets, Manski (2000) notes that the researchers have long been ambivalent about whether and which social interactions constitute the proper domain of study. Especially, the study of social norms as a channel of diffusion for social interactions and their effect on people's behavior has been neglected in economics. This is due to the fact that decisions based on values or norms are, to a large extent, enforced through non-market interactions and are therefore difficult to isolate empirically.

However, the growing number of theoretical and empirical economic papers on social interactions which have been published in the last decade show that economists have increasingly become aware that, besides market interactions, social interactions are an important determinant in economic decision making (Soetevent, 2004).

Surprisingly, while work on social interactions is blossoming in all disciplines, the results thus far have been inconclusive. Both social scientists and economists have succeeded only partially in demonstrating the impact of group/neighborhood characteristics on individual outcomes using observational data (Jencks and Mayer, 1990).

To some extent, the difficulties encountered are largely but not entirely the result of data constraints. The roots of the problems might be found even more in the lack of common analysis and interactions between different research disciplines.

One important attribute of the scientific approaches regarding social interactions is that they have addressed a fairly similar research question by using remarkably dissimilar techniques[2]. Moreover, there are tensions between the conceptual and methodological approaches of the sociological and economical perspectives on social interactions. While other social scientists have concentrated to a large extent on theoretical and conceptual patterns, economists have focused more on the empirical data analysis. Dietz (2001) notes that, in most of the cases, researchers do not even recognize these disparities because they are unaware of studies within another branch of social science.

This paper aims to review the existing economic literature on social interactions and their impact on the individual behavior in labor market settings. The present analysis concentrates on studies dealing with the impact of social norms and social networks on individual unemployment status. Though I believe that most human behavior is embedded in networks of interpersonal relations, I concentrate in this paper on human behavior in an economical framework as: a) while a wide range of studies enriched the theoretical literature of social interactions, empirical evidence both from economics and sociology is rather scarce and fragmented and b) the problems

encountered in theoretical and empirical analyses illustrate the classical research difficulties resulting from a lack of cooperation among the two areas of research. In line with the last idea, one of the main contributions of this paper to the existing survey literature lies in raising awareness of the problems which occur, mainly but not only, in the economic analysis of social interactions.

As the proposed research topic is relevant to the current political and socio-economical context, the second section of this paper takes a deeper look at the labor market implications which are claimed to be a consequence of interactions among individuals. Section III provides an overview of the economic studies which deal with the incorporation of unemployment within a social interactions framework. In order to clearly specify the difficulties encountered in research, I present the main social interactions concepts, theories and assumptions. The study is structured on two pillars, describing the main channels which enforce the impact of group behavior on unemployment: **social norms** and **social networks** as an important resource for an individual's job search strategy. This section is enriched by a presentation of the methodologies used by different scientists when analyzing unemployment patterns within a social context.

The current state of research is rather far from being complete and comprehensive, both theoretically and empirically. Therefore, it should neither be welcomed uncritically, nor should its results and findings be accepted with enthusiasm. Following this view, section IV shortly presents the main problems which occur in empirical analysis. By means of examples from a range of literature, I capture the difficulties concerned with the lack of empirical evidence, with the methods used by scientists and with the underdeveloped theoretical framework.

The last section deals with potentially new directions in research. There are two main strategies which could lead to a more accurate demonstration of the impact of groups on the individual unemployment status. The first one concerns both the necessity of testing the viability of assumptions with larger data sets, including qualitative variables, as well as the need of supplementing the existing research with new inquiries regarding labor market outcomes of

individuals. The second one, representing the core idea of the paper, requires that statistical, quantitative evidence should be combined in the future with qualitative studies and experiments in order to show that group memberships play an important role in the determination of individual economic outcomes. In line with this idea, the future of social interaction models might be found at the crossroads of economics and other social sciences.

2. WHY IT IS IMPORTANT TO LOOK AT SOCIAL INTERACTIONS IN THE CONTEXT OF UNEMPLOYMENT?

The underlying principle of the social interactions concept is that, in order to understand the effects of group behavior on individual outcomes, each agent should be studied using a multilevel approach. This encompasses the crucial interplay between agents **(the micro level)**, the neighborhood and social networks they belong to **(the meso level)** and the political-institutional context **(the macro level)**. The results of such an analysis are not only relevant for academic research but have political implications at each level.

In the following section I will illustrate the impact social interactions within a group or a community of people might have on shaping the employment choices and status of an individual belonging to that group.

The micro level concerns the outcomes on the labor market of each person, under the influence of the group he/she adhered to. On this level, role models[3] can exert powerful influences. For instance, in groups with large number of unemployed persons who share similarly long unemployment experiences, no 'positive role models' tend to develop in terms of assiduity and incentives to work. Instead, so-called 'unemployment cultures' can occur, characterized by a certain resignation and acceptance of living on the dole (Lindbeck, 1999). Moreover, if young people are likely to learn from the experiences of adults in assessing an economic and social payoff of employment, those belonging to families, groups or communities with high numbers of unemployed persons might observe biased outcomes in the sense that they are missing relevant

information about the non-monetary 'benefits' resulting from employment. Therefore, they might even lower their incentives to find a job.

The impact of peer behavior on the labor market choices of an individual might be also enhanced through social norms. In a community or a group with a strong work ethic, those who do not work will likely be sanctioned by social pressure from other members of their community and feel internal pressure to comply with the norm to work. Thus, the existence of social norms can create psychological forces which raise or lower the acceptance towards unemployment.

On the ***meso level***, the impact of adherence to a certain social network (or as broadly defined by economists, to a community or neighborhood) might be noticeable in terms of resources used in finding job opportunities or in public finance made available for living conditions. The individual's social network can improve his chances of finding a job, of receiving advice and psychological support, or of getting a temporary loan. According to Granovetter (1995), most of the jobs in the USA are found through neighbors, friends, relatives or business acquaintances. As argued by Montgomery (1991), this suggests that groups/communities with a low employment quota will be less able to generate the labor market information necessary for the rapid and successful matching of members to jobs.

The ***macro level*** is associated with important political considerations. The exploration of the macro context, such as the impact of different public policies on groups characterized by unemployment, is particularly interesting given the currently high unemployment rates in certain European countries such as Germany or France. From this perspective, the analysis of unemployment patterns within the framework of social interactions could enhance knowledge about the extent to which government and other policy-making bodies should invest in individual or group/neighborhood targeted policies and how they should be implemented. Labor market reforms concerning unemployment, social benefits, mobility and entrepreneurial spirit might not be efficient if they are uniformly implemented, because communities and different groups of

individuals face rather unequal conditions. An effective use of these policies requires a thorough understanding of the factors which affect the choices made by individuals in a given society.

Depending on the findings of the empirical studies, two conclusions might be possible: either social interactions matter in shaping unemployment patterns, or individual characteristics are more relevant with regard of this matter[4]. Each of these results implies specific policy measures, which are complementary, rather than mutually exclusive.

Under the premise that **social interactions** are highly relevant in shaping individual choices, no additional return would be gained from policies solely aimed to improve individual characteristics such as vocational training or the provision of welfare subsidies. Instead, if it is assumed that an individual belonging to a certain peer group or neighborhood faces disadvantages on the labor market due to this affiliation, efforts should be channeled into programs focusing on that reference group or community as a whole.

One option in solving such a problem is said to be the adoption of so called 'diversification policies'[5] which lead to *mixing* of poor/unemployed groups and better situated communities. These policies are becoming more and more relevant in several Western countries (Austria, the Netherlands, Germany and France). Still, critics of these concepts raise the question of whether the government can and should intervene to alter how groups are formed in the economy and society in general.

That neighborhood and group influences matter in shaping individual labor market outcomes has been touted not only in the USA, where many studies have produced such evidence, but also in Europe, especially in France. The *banlieu* riots in 2005 and 2006 showed that the concentration of socially disadvantaged persons might lead to stigmatization attitudes towards them from people who do not belong to that community. Moreover, these concentrations might have a 'weakening' effect on the residents with regard to job opportunities and good labor market outcomes. According to recent studies, the inhabitants of *banlieus* have relatively low chances for upward

social and economic mobility. Especially young people claimed that simply their adherence to a certain neighborhood brings uncountable disadvantages on the labor market[6].

As described above, the second premise in designing policies implies that, besides the group affiliation, **the endogenous personal choices** and the **personal characteristics** of an individual are far more relevant in determining his outcomes on the labor market. According to this hypothesis, solely the individual himself is responsible for his actions, being able to isolate his choices from exogenous influences.

From this purely 'individual-rational' perspective, there appears to be no sense in trying to tackle inequalities by addressing group-specific problems, as the unemployment status of one individual does not necessarily reflect the composition of his/her group, but rather the lack of certain individual characteristics such as education or appropriate skills necessary in finding a job. In this case, policies oriented towards vocational training, further educational measures or better work placement counseling seem to be more appropriate.

3. IN THE SPOTLIGHT: THE CURRENT STATE OF REASERCH ON SOCIAL INTERACTIONS AND UNEMPLOYMENT

An in-depth analysis of social interactions presumes both a complete definition of this concept and a clear view on how it differs from other related types of behavior. However, to formulate an all-encompassing definition of social interactions is rather difficult, as its comprehension varies depending on the researcher and on the social science. Scheinkman (1993, p. 1) summarizes it as follows: *'Social interactions refer to particular forms of externalities, in which the actions of a reference group affect an individual's preferences. The reference group depends on the context and is typically an individual's family, neighbors, friends or peers. Social interactions are sometimes called non-market interactions to emphasize the fact that these interactions are not regulated by the price mechanism.'*

Related to the social interactions term is the concept of 'neighborhood effects' which has gained more and more relevance in the current research. Dietz (2001, p. 3) defines and incorporates neighborhood effects within the more general interaction effects. Still, it is fairly difficult to draw clear line between the two terms: *'...a neighborhood effect is a social interaction or an endogenous effect that influences the behavior or socioeconomic outcome of an individual. The neighborhood component refers to the fact that these effects are typically defined in the context of a spatial relationship (i.e. residential location, other geographic/social distance measures).'*

A last point I would like to make about the concept of social interactions, refers to its delimitation from other types of interaction which occurs between individuals. According to Manski (2000) three types can be distinguished: the first one regards endogenous interactions (i.e. the 'real' social interaction effects, which I try to capture), in which the propensity of an individual to behave in a certain way varies with the behavior of the group. The second one refers to contextual interactions, in which an individual behaves under the influence of the exogenous characteristics of the group members. Finally, there are the correlated effects, in which individuals in the same group tend to behave similarly because they are self-selected, meaning that they have similar individual characteristics or face similar institutional environments.

The existing body of literature focusing on the impact of social interactions on individual unemployment status can be classified as belonging to two main research directions, according to the diffusion channels through which the impact occurs:

- the first direction is based on **social norms,**
- the second research direction deals with the role of **social networks** in the decision making process of an individual with respect to unemployment.

For a structured overview, I will analyze these two interdependent pillars separately. For each section, I will first present the underlying theoretical concepts. I will then discuss existing papers

which are representative for each research direction, including their main assumptions and results. Last but not least, I will synthesize the methods used for analysis.

3.1. Social Norms and Unemployment

In line with the literature, a social norm is defined as *'a behavioral regularity; that is [...] based on a socially shared belief how one ought to behave; which triggers [...] the enforcement of the prescribed behavior by informal social sanctions'* (Fehr and Gächter, 2000, p. 12). Unemployed persons are supposed to be exposed to a certain social pressure coming from other members of their community. As a result, an internal pressure emerges to comply with the norm to work. Elster (1989, p. 99)[7] illustrates the difference between rational actions and actions following social norms:

> *'Rational action is concerned with outcomes. Rationality says: If you want to achieve Y, do X. By contrast, I define social norms by the feature that they are not outcome-oriented. The simplest social norms are of the type: Do X, or: Don't do X.[…] For norms to be social, they must be shared by other people and partly sustained by their approval and disapproval. They are also sustained by the feelings of embarrassment, anxiety, guilt and shame that a person suffers at the prospect of violating them.'*

However, the author sets forth that: *'social norms offer considerable scope for skill, choice, interpretation and manipulation. For this reason, rational actors often deploy norms to achieve their ends' (Elster, 1989, p.100).*

Beginning with the influential work of Akerlof (1980), the economic theoretical modeling of social interactions based on social norms has gained in importance. Akerlof concentrates on the adherence to social customs as a possible explanation for involuntary unemployment. His model presumes a code of behavior that governs how a person should behave in the market, in which individuals damage their reputation if they do not behave in accordance with the prescribed norms. Moreover, Solow (1990) and Solow and Hahn (1995), relying on a social norms model, provide a

solution to the problem of persistent unemployment, which cannot be explained by the standard supply and demand theory of the labor market. Solow (1990, p. 23) states:

> *'Sometimes it seems to me that a more sociological and less psychological way of understanding behavior in labor markets might be suitable. Social institutions define acceptable and unacceptable modes of behavior in weighty contests like the labor market. Norms of behavior can be modeled as constraints on decisions. They affect behavior when they bind. From this point of view the trouble with the everyday textbook labor-leisure analysis is that it takes account only technological and budget constraints and ignores the constraints arising from social norms.'*

The works of Akerlof (1980) and Solow (1990) constitute good grounds on which to build bridges between economics and other social sciences. The main conclusion deriving from these studies is that the observance of social norms can be consistent with individual rationality, even where it may appear in contrast with economic advantage.

In line with the above mentioned literature, social norms and social customs with regard to unemployment entered into the economic modeling, for example, in the work of Gordon (1989), Besley and Coate (1992), Cole et al. (1992), Kandori (1992), Bernheim (1994), Glaeser et al. (1996), Lindbeck et al. (1999), Lalive and Stutzer (2004), Lalive and Cattaneo (2005)[8]. While Glaeser et al. (1996) incorporated social norms and social customs into models of criminal behavior, Cole et al. (1992) and Gordon (1989) reflected on the impact on savings, growth and tax evasion. Further on, within the framework of social norms, Besley and Coate (1992) and Lindbeck et al. (1999) brought a new perspective to the analyses of welfare stigma and welfare benefits.

There are three major assumptions regarding the impact of social norms on unemployment which have been tested and confirmed by the existing body of literature.

The first one does not touch directly upon social interactions, but constitutes a necessary condition for a more detailed analysis. Previous research produced evidence that unemployment

exerts a serious, negative effect on the subjective well-being of jobless individuals. In other words, **the subjective well-being of the unemployed is lower compared to that of employed people.**

Clark und Oswald (1994, p.655) observe, for example, that '*joblessness depresses well-being more than any other single characteristic'* (including important negative situations such as divorce and separation). By using data from the British Household Panel, the authors come to the conclusion that the effect of being unemployed is in their empirical analysis significant and is negatively correlated with well-being. Moreover, the effect is robust and quantitatively large across varied specifications.

Studies conducted on the basis of panel analysis, such as Winkelmann und Winkelmann (1998) for Germany, Marks und Fleming (1999) for Australia, Agerbo et al. (1998) for Denmark and Clark (2003) for England also underline the fact that the effect of unemployment on subjective well-being is relevant and that it is not a result of unobserved individual characteristics.

Furthermore, Clark (2006) finds evidence that dissatisfaction with the state of being unemployed declines over time. The reported well-being of unemployed persons may rise because they become better at budgeting (i.e. make appropriate use of reduced income), find new friends who are also unemployed or cut back on inefficient job search strategies.

Hedström et al. (2003) find similar results: when unemployment is high, it is socially more accepted to be unemployed, and both employed and unemployed workers will have fewer incentives to avoid unemployment. The explanation put forward by the authors is connected to the subjective well-being of unemployed individuals. Interviews in the metropolitan area of Stockholm[9] showed that being the only unemployed individual makes for a quite lonely and dull existence, compared to a living situation in which many of one's friends and acquaintances also are unemployed. Daily activities seem to be enjoyed much more in the company of friends, and this is possible during the day if some acquaintances are also unemployed. Hedström et al. (2003,

p.9) conclude, *'that an increase in unemployment among an individual's friends and acquaintances is likely to reduce the social and psychological costs of being unemployed'*.

These findings lead us to the second assumption, that **the subjective well-being of unemployed improves as the number of unemployed peers increases. In other words, unemployment becomes subjectively more bearable when it becomes a common experience.**

Finally, the last main finding of the current research on unemployment and social interactions brings together the concepts of unemployment, subjective well-being and social norms. In other words, the well-being of unemployed people is correlated with the strength of the social norm, meaning that **the well-being of unemployed people is higher in communities (groups) where there is a lower work norm.** This finding is explained by Lindbeck et al. (1999, p.3)[10], as the number of individuals who are unemployed increases, the social pressure diminishes. Thus, living on transfers becomes less embarrassing when more individuals do likewise: *'When the population share of transfer recipients is large (small), the individual's discomfort from such a lifestyle is relatively weak (strong)'*. However, the interpretation of this latter hypothesis is rather difficult, because, as noticed by Lalive and Stutzer (2004), social work norms are formed over time and are endogenous. Moreover, the hypothesis that social norms determine the number of unemployed persons and the duration of unemployment might be biased. There is also the possibility of reversed causation, meaning that a weak work norm may develop in structurally lagging regions, where poverty and high unemployment prevail.

Related to the research of social norms and unemployment, an interesting approach has been developed by Goffman (1963), Besley and Coate (1992) and, more recently, by Lindebeck et al. (2002). These studies outline **the relationship between social interactions, the unemployment decision and the link to social benefits**. Along with these patterns, there is the assumption that unemployed individuals living on welfare face stigmatization, as 'work' is a prevailing norm in a market oriented, liberal society. Therefore, the term welfare stigma refers in economic literature to

the negative psychological consequences and the social costs of being on welfare. Its existence has been amply documented, both in surveys of welfare claimants and econometric analysis of programs.

In line with this literature, Besley and Coate (1991) develop and explore the implications of two alternative theories regarding welfare stigma. The first approach is based mainly on the sociological literature, especially on the work of Goffman (1963), and takes a closer view at the concept 'stigma' in terms of a norm from the society concerning which characteristics an individual has to possess in order to be valued. Desirable attributes within this context might be willingness and assiduity to work hard, self-reliance and civic responsibility. Welfare climates are said to be treated poorly (stigmatized) from the other members of the community, as they are believed to hold on average fewer of these characteristics. Gofman (1963), as one of the first researchers to examine the consequence of stigmatization on unemployed persons, goes a step further and assumes that, besides a social pressure coming from other members of the group or the community, unemployed persons have to face their own negative perception, as they lose their self-esteem and regard themselves as being failures because they have to draw upon public support. Goffman argues that unemployed individuals are likely to respond to stigma in different ways. They may try to 'hide' the fact they are on welfare and may be more likely to interact with others who are also claiming benefits. Or, they may conform to the characteristics they are assumed to have and may therefore become welfare dependent.

The second approach presented by Besley and Coate (1991) relies on the so-called 'taxpayer resentment' view on welfare stigma. The main idea underlying this approach is that stigmatization against welfare recipients occurs as a consequence of having to raise taxes to finance welfare programs. The authors cite surveys of attitudes which reveal that individuals who have to pay taxes in order to support those who are on welfare are likely to develop hostility feelings towards recipients.

Lindbeck et al. (2002) analyze in a theoretical model to which extent social norms corroborated with welfare stigma might mitigate free-riding on social benefits. As lowering benefit levels seems not to provide the proper solution to be enforced by policies (see for more details Pellizzari, 2005), social norms against living off benefits could induce a 'shame' on individuals deviating from the norm. Moreover, if the stigma from the society is high enough, the work norm might be even internalized by individuals, leading to a guiltiness feeling. Under these circumstances, enhancing the existence of strong work norms might be an effective solution in reducing the number of individual who intentionally live on public welfare.

As seen from the previous literature, progress is being made in including social norms into economic models. Still, systematic empirical evidence is scarce. For an empirical analysis of the effects of norms on unemployment, specific measurement methods are required which can capture a person's beliefs about how one ought to behave. However, existing datasets do not typically allow the behavior of relevant peer groups to be properly measured. So far, economists have had to rely on their 'intuition' about which measurement methods of group related social norms would most likely overcome the data constraints.

Lalive and Stutzer (2004) use the voting behavior and political orientations of citizens as an indicator for the strength of the work norm, which determines the duration of unemployment and an individual's choice to live on state welfare. The data used for the analysis is from a country-wide referendum on the level of benefits to be paid out to unemployed persons in Switzerland. The public discussion that took place before the vote, and the quantitative analysis conducted after the vote, suggests that the proportion of voters in favor of reducing unemployment benefits in a community can be taken as a proxy for the strength of the belief that it is not right to live off on public funds. The social norm to go about paid work reduces the duration of unemployment substantially. By using a stratified estimation which keeps unobserved regional variation, e.g. in labor market conditions, constant, the authors come to the conclusion that the effect of the social norm is stronger in small communities and for unemployed people whose mother tongue is the

local language. Accordingly, a one standard deviation increase in the strength of the social work norm translates, on average, into a reduction of unemployment duration by approximately 11 days.

Hedstöm et al. (2003) discuss in their empirical analysis the psychological costs of being unemployed. In order to capture the features of a work norm, they assume that being unemployed is associated with a psychological cost, and that this cost falls as more workers become unemployed. Extending and testing the theoretical search model of Pissarides (2000) with data on 20- to 24-year olds living in Stockholm during the 1990s, the authors present evidence that the unemployment level is affected by social interactions. Apparently, the psychological costs, enhanced through stigmatization, influence the search intensity of the unemployed.

Finally, building on the influential norms model of Akerlof (1980), Clark (2003) combines variables related to the subjective well-being of unemployed people and their reputation within a group or a community. The theoretical model proposed for the analysis relies on two components which are rather difficult to quantify: the utility of an individual and the norms which affect his behavior. The logic put forward is as follows: individual utility depends on social norms, thus, a person will obey the community's norms in order to increase his/her utility. Relevant here is the fact that Clark uses well-being measures, such as life satisfaction, overall happiness or job satisfaction, as proxy indicators of utility. That means, that one is happy or satisfied with one's life when one follows the work code of the community. Disobeying the existing rules might lead to a loss in reputation and thus to a decrease in happiness. By using seven waves of panel data (BHPS), Clarks further tests empirically his theoretical model. Both at the regional and household level, the well-being of unemployed persons is shown to be strongly positively correlated with the unemployment status of peers. This effect is found to be far stronger for men, and it is robust to controls for unobserved individual heterogeneity.

3.2. Social Networks and their Impact on Unemployment

The second approach to analyze the impact of social interactions on unemployment is based on the importance of social networks in labor markets. Social contacts mediate the spread of useful and reliable information among individuals and thus aid in the process of matching workers and available jobs. The broad economic literature existing on this matter emphasizes the importance of social networks within a market setting. However, the economic studies must be seen as a complement of the more extensive sociological analysis of networks.

According to Ioannides and Loury (2004)[11], sociologists have been working with the concept of 'social networks' for a lot longer than economists. Therefore, the term became as ubiquitous as that of 'market' in economics and it is used in a comparably various range of contexts. In economics, the meaning of the social network concept is used in a simpler and narrower manner, referring to 'personalized exchange among many agents' (Kortum, 2003 in Ioannides and Loury, 2004).

According to the social network theory, individuals do not exist as isolated entities but are embedded into networks of relations that provide opportunities and constraints, such as information flows, the provision and enforcement of norms. The work of Burt (1992), which is an extensive introduction to the social network theory, as well as the study of Coleman (1988), which dissects the notion of social capital, represent steps forward in developing the idea that agents are more likely to trade, compete, or exchange job information with other agents who reside 'close' to them.

One important result, documented by the literature on social networks, is that the importance of informal contacts and information networks in the job search process has gained in importance over time. This has been demonstrated in a range of analyses, conducted especially on the US labor market. By focusing on the weak ties (defined as acquaintances), Granovetter (1995) finds that roughly 56% of those surveyed in his research found their current job through personal connections (only 19 percent of his sample used traditional job-searching routes, such as

newspaper or professional agencies). Moreover, jobs are often found through help from the contacts formed long before seeking employment. Building on the work of Holzer (1988) and Rees (1966), who find fairly similar results, Montgomery (1991) provides evidence in his theoretical model that both employers and workers would benefit more if they use informal networks upon formal search channels. According to his study, contacting friends and relatives in the job search process implies for workers a higher probability of getting a job. Meanwhile, by using referrals from current personnel, employers will earn more, as the current (highly) qualified employees will tend to refer others who are similar to themselves. Besides the fact that employers will benefit from this self-selection process, they will also save the costs which occur when using a classical, formal search method.

In line with these findings, but focusing more closely on the information exchange among workers, Calvo-Armengol and Jackson (2004) develop a theoretical network model of job searching in which individuals receive employment offers from friends and acquaintances and can decide whether to use them themselves or pass them on to their unemployed contacts. Similarly, in an empirical study, Marmaros and Sacerdote (2002) find large positive correlations between receiving help from fraternity/sorority contacts and getting high-paying jobs.

However, a second result evolving from the literature, points out that the role of friends, working colleagues or acquaintance should not be overestimated and considered as all-encompassing. Economical studies provide evidence that other factors such as location and demographic characteristics might influence the extent to which an individual might turn to his fellows when searching for a job. For instance, Corcoran et al. (1980) state that informal job search channels are more prevalent among black workers and among young and less educated workers. Moreover, the use of informal contacts declines for both groups with age and/or work experience. Topa (2001) and Topa and Conley (2002) emphasize the importance of the social environment an individual lives in. According to their empirical studies, an unemployed person will find it easier to get a new job if he/she lives in a low unemployment environment. Similar

reasoning is applied in the work of Selod and Zenou (2001), in which the probability of finding a job is a function of the social network one lives in. Bayer et al. (2005) document in a recent empirical study that people who live nearby (in the same census block) are more likely to work together than those living in dispersed blocks. According to their econometric analysis, residing closely (and implicitly belonging a social network defined in administrative terms), increases the probability of working together by over 33 percent.

Still, other research accounts for self-selection as the likely origin of (apparently relevant) social interactions effects. By evaluating the effects on the long-run labor market outcomes of adults who were assigned, when young, to substantially different public housing projects in Toronto, Oreopoulos (2003) finds that neighborhoods (and thus locally created social networks) play little role in determining youth's eventual earnings, likelihood of unemployment and welfare participation. His empirical work brings evidence that family differences, as measured by sibling outcome correlations are more important, accounting for up to 30 percent of the total variance in the data.

Ioannides and Loury (2004) put forward in their analysis some more results (or so-called 'stylized facts') concerning the role of social networks in labor market settings: firstly, job search through friends and relatives seems to be productive, as persons using informal contacts in their job searching process do receive more offers than people who use other sources of information. Secondly, there is a certain variation in job search productivity across demographic groups, which can be explained by differences in usage (meaning that, for instance, women are less likely to use informal contacts than men). However, according to the authors, these results should be treated with caution, as there are also some studies which document slightly different results. Third, differences in usage of informal contacts by both firms and persons appear to occur also across countries. This latter result might be explained by either country specific recruiting strategies used by firms, or by institutional and social practices reflecting countries specific industrial structures.

However, these stylized facts also illustrate that the research on social networks and employment/unemployment patterns of individuals is not yet complete. Questions such as, why some groups rely more on their social networks than others, why outcomes of using a social networks vary among groups or what impact information technology has on the labor market (especially the Internet[12] as a job search medium) remain unanswered and deserve further attention.

An increased attention should also be dedicated to the goal of convincingly demonstrating in empirical studies that social networks do play an important role in shaping individual outcomes on the labour market.

The achievement of this goal requires both large and accurate datasets and advanced techniques in modelling, which could permit the detection of causal inferences from observational data. However, even if these prerequisites are fulfilled, persuasive empirical results on the consequences of social networks for individuals must overcome al least two other methodological problems.

The first one refers to the concept of 'social networks' economists use in their analysis. More or less, due to data constraints, the social ties of an individual are captured primarily in terms of administrative boundaries such as districts or cities. This delimitation, as pointed out by the sociological and geographic literature on social networks, might not be very meaningful in assessing networks effects, as individuals underlie the influence of social settings which are much smaller and concentrated. Bayer et al. (2005) seem to overcome this problem by adopting a new empirical approach designed to identify social interactions effects. The authors use observational data and succeed in narrowly defining neighbourhoods (and thus social networks) by isolating block-level variation in the characteristics of neighbours.

The second important methodological problem refers to the fact that the endogeneity of social networks might substantially distort any estimates of network influences. Most of the empirical economic studies rely on large datasets such as the US Census (Topa, 2001 and Bayer et al., 2005)

or on data gathered from experimental programs (Marmaros and Sacerdote, 2002; Katz et al. 2000; Ludwig et al., 2001) and large surveys (Kuhn and Skuterud, 2000 and Granovetter, 1995). In order to capture clean evidence of networks effects, this data must control for the fact that, in most of the cases, social networks defined in administrative terms are not chosen by individuals randomly, but rather they reflect personal characteristics such as unobserved preferences and unobserved community features.

Despite these methodological shortages, the research on social networks and their impact on labor market outcomes of individuals has a role-model function regarding the interplay between sociological and economical approaches. Since the economists' formal and qualitative understanding of the 'social network' concept is by far less developed, the diversity and manifold which this term connotes in sociology has lately entered the economic research as well. Conversely, there are also cases in which economic perspectives have influenced the development of the sociological discourse. For instance, according to Ioannides and Loury (2004), the concept of 'social capital', even if originally defined by Loury (1977), has found much fertile ground in sociology. Another example for the good interplay between these two academic fields is found in the most recent analyses on job information networks, which are grounded on the empirical findings of Granovetter (1973, 1995). His works are considered departure points both for sociologists and economists and are widely cited in both disciplines.

This interdisciplinary work between economics and sociology was gradually designed. Initially, most of the economic analyses concentrated mainly on assessing the role of contacts in the job searching process by comparing outcomes of individuals with, to outcomes of persons without job contacts. Building on the vast sociological research, recent economic literature takes a step further by refining the analyses with knowledge which documents that network effects are complex and vary due to individual, type of relation, work environment and employer heterogeneity (Ioannides and Loury, 2004).

In line with these last ideas, further research on social networks should not only concentrate on new, promising topics, but should increasingly offer a special attention to the interplay between economics and other social sciences.

4. WHAT IS WRONG WITH THE ECONOMIC RESEARCH ON SOCIAL INTERACTIONS AND UNEMPLOYMENT?

While academic work on social interactions is proliferating, the results of such studies are sometimes claimed to be 'unconvincing and sometimes inconsistent' (Lupton, 2003)[13]. Broadly speaking, there are three general types of problems which may be associated with the empirical analyses of social interactions: a) inappropriate data sets, b) inaccurate methods and c) imprecise definitions of the theoretical concepts.

Despite the increasing amount of literature on social interactions, there is still scarce empirical evidence of the influence that group behavior might have on different socio-economical outcomes of individuals. The lack of empirical studies is mainly caused by **data constraints**[14]. As social interactions have something to do with subjective variables such as norms, values and personal contacts of individuals, it is rather difficult for a researcher to find data sets which contain all of the desired elements. The main problems which occur in most data sets involve incomplete variable lists, controls for exogenous factors and self-selection problems. Omitted-variable bias can easily be mistaken for social-interaction effects. Therefore, extended data sets with variables regarding both objective and subjective characteristics of individuals can lead to much better and accurate results. Jencks and Mayer (1989) highlight in their study the importance of controlling for exogenous factors when dealing with social interactions effects. Especially for people who belong to the same neighborhood/community, there might be other elements which influence their behavior but are not captured in the data base. If investigators do not control (or if they mismeasure) all of the relevant factors, the apparent effect of social interactions might be false. Manski (2000), Moffitt (2000) and Durlauf (2001) point to another essential problem faced by the

empirical research: the so-called 'endogenous membership', which means that individuals often self-select into their groups of reference. Individuals are not randomly assigned to neighborhoods; rather they make their decisions on where to live according to prices or income, or simply because they share same values and possess similar characteristics. Thus, any resemblance between the attitudes and behaviour of individuals and their network peers may not reflect social influences, but merely exhibit similar determinants of personal characteristics and behavior (Manski 1993). Therefore any group effect identified from data may be spurious. There are ways to deal with this natural problem, but they still have to be implemented in empirical work (Brock and Durlauf (2000a)).

Regarding the **methods used for the study**, so far, social interactions research has mainly relied on observed mean group behavior as a proxy for the group's performance. Mean group behavior is, by definition, the average of the individual behaviors in the group. However, this is not satisfactory, because a group may behave in a similar way even in the complete absence of social interactions. Moreover, the channel through which social interactions affect behavior is often unclear and it is not possible to distinguish between social pressure and alternative interaction like imitation, learning or getting help. Manski (2000) points to another difficulty concerning the empirical analysis, namely that the economic methodological approach to social interactions presumes that each individual interacts with members of his/her group, neighborhood or ethnic group. The prevailing practice for empirical economics has been to infer the presence of interactions from observations of similar outcomes for the interest group. However, this observed performance might be caused by many different interaction processes or might be incidentally similar. Hence, the findings of economic empirical studies are often open to a wide range of interpretations.

A further problem with the economic social interactions research concerns the lack of a clear **conceptualization** of interaction processes. Who are the individuals that interact with one another? Through which channels do they interact? Who are the 'relevant others'? How does the

researcher know who interacts with whom? What does the underlying social structure between the agents look like? Does the size of the reference group, as defined by the researcher, affect the conclusions of the study?

While sociologists have dedicated tons of papers, no convincing, systematic answers to these questions have been put forward by economists. Therefore, both economists and social scientists have to form a set of common concepts which allow for a more precise handling of these inquiries. However, Manski (2000) observes that there seems to be a large acceptance of the fact that the economic perspective on social interactions is so different that it needs to be analyzed separately from other social sciences.

Until now, economists have mainly borrowed terms from sociology and have written about 'group influences', 'peer effects', 'neighborhood effects' or about 'social norms' or 'social work moral' without being concerned about the precise definition of these concepts. Thus, the findings can sometimes be misleading. According to Granovetter (1985, p. 486), even when economists do take social interactions seriously, they invariably abstract the individuals from their social context: *'the interpersonal ties described in their arguments are extremely stylized, average, typical – devoid of specific content, history, or structural location'.*

Problems affecting empirical research should be a matter of concern. Speculations about the role of group behavior on individual outputs such as unemployment can lead to a loss of credibility in the eyes of the policy makers who might use scientific results to back up their policy measures. Therefore, researchers need to replace speculation with sound empirical analysis.

5. NEW VANTAGE POINTS IN RESEARCH

One persistent gap in current scientific research on social interactions and their impact on individual behavior in market settings is the opposition between two traditions of thought, namely, **homo economicus and homo sociologicus.** While the first is more likely to be guided by rationality and utility maximizing strategies, the latter one relies on social norms and customs (Elster, 1989). The fact that individuals might have social relations with each other in labor market processes has been treated, if at all, by many economists as a frictional drag that impedes competitive markets and not as a potential factor which might explain economic outcomes (Granovetter, 1985). In line with this idea, the old, well-known complain of Adam Smith still seems to patronize a large part of the actual economic research: *'people of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices'*. (Smith, 1776 in Granovetter, 1985, p. 484). The basic assumption of the current economic research remains that people's decisions are more likely to rest on rationality and long term interests, and not on their neighbors' or friends' thoughts about what is desirable.

From this perspective, one would believe that sociology (or the adherents of the *homo sociologicus* approach) might have a lead over economics when dealing with social interactions and their impact on labor market related individual behavior. However, this is not the case. According to Manski (2000), no coherent sociological analysis can be found with regard to this issue, as there is no shared, discipline-wide perspective. While some sociologists describe models of social interactions using a language suggesting economic thinking, others put most of their effort into describing, conceptualizing and developing terms which play little role in modern economic research. Conversely, as Manski (2000, p. 121) points out, economists have done a lot using only a small set of basic concepts: '*preferences, expectations, constraints and equilibrium'*.

An even firmer critique to the sociology's approach regarding the analysis of human behavior in market settings is formulated by Granovetter (1985, p. 504):

> *' […] with few exceptions, sociologists have refrained from serious study of any subject already claimed by neoclassical economics. They have implicitly accepted the presumptions of economists that "market processes" are not suitable objects of sociological study because social relations play only a frictional and disruptive role, not a central one, in modern societies. (Recent exceptions are Baker 1983; Burt 1983; and White 1981). In those instances in which sociologists study processes where markets are central, they usually still manage to avoid their analysis.'*

Beside this axiomatic theoretical controversy, the perspectives of the two disciplines when dealing with the impact of group behavior on individual labor market choices also seem to diverge regarding the methodology used for the study. While most economists are deeply skeptical about subjective statements resulting from qualitative data – *'early in their careers, economists are taught to believe only what people do, not what they say'* (Manski, 2000, p. 131) – most of sociologists believe that behavior related topics can be treated only on behalf of subjective data, such as in-depth interviews.

These two perspectives on the same matter demonstrate that, within the research framework of social interactions and economic behavior, sociology and economics tend to co-exist rather than to be fully integrated. Nevertheless, the presumption that they are complementary and that they both have an important contribution to policy is finding increasing acceptance (Lupton, 2003).

The current state of the literature, with its unresolved issues, suggests that the future of research on social interactions effects will involve contributions from different social sciences, and that subjective data will increasingly gain in importance in the work of economists. The collaboration between sociologists and economists might be rewarded by a more accurate and policy-oriented results. While qualitative models can provide new perspectives for research, as well as a large vocabulary to describe the relevant phenomena, quantitative researchers can develop models with more explicit results regarding the processes and motivations of the actors involved (Dietz, 2001).

Building on the evidence derived from qualitative studies that 'place matters', economists might find it easier to develop measurement tools with which to evaluate the effects of place on individuals. Taking into account contextual variables, economic research will reach much more precise and clean results. Moreover, quantitative studies might **measure** and **test** hypotheses which can be only verbalized by qualitative studies. Finally, as Lupton (2003, p. 3) puts it: *'neighbourhood effects research can 'beef up' evidence from qualitative studies to inform governments about the likely influence of policies targeted at areas, while qualitative community studies can continue to identify mechanisms to be tested by quantitative researchers, as well as delivering an understanding of the conditions in which policies will be implemented and the processes of implementation on the ground'*.

The future economic research agenda on social interactions should not only concentrate on enlarging the theoretical framework, but should also include new methodologies and tools for confirming the existence and size of such phenomena. The scarce empirical evidence should be tackled both by testing the existing hypotheses with larger and reliable data sets and by supplementing the existing research questions with new inquiries into the effects of social norms on topics such as total employment, self-employment and entrepreneurship.

A fruitful and accurate economic analysis of social interactions requires clear thinking and precise concepts. Neither an under- nor an oversocialized approach is appropriate, but rather an interdisciplinary perspective on individual actions, considered as *'embedded in concrete, ongoing systems of social relations'* Granovetter (1985, p. 487).

Notes

[1] The seminal work of Wilson, W.J.: 'The Truly Disadvantaged' (1987), has inspired social scientists to investigate the role and impact of social interactions among people living in disadvantaged neighborhoods. The results show a range of adult and adolescent outcomes associated with poor living environments including infant mortality, teenager childbearing, dropping out of high school, child maltreatment, and adolescent delinquency.

2 While social scientists used exceedingly qualitative methods, economists centered their analysis of social interactions on quantitative, econometrical models.

3 Role model- 'a person who serves as an example of the values, attitudes, and behaviors associated with a role. For example, a father is a role model for his sons. Role models can also be persons who distinguish themselves in such a way that others admire and want to emulate them' (Science Dictionary, Houghton Mifflin Company).

4 Heining and Lingens (2005, p. 26), using a data set on un-/employment for Germany, find out that the overwhelming part of differences in the hazard rate between individuals is explained by structural individual characteristics. '*Structural regional heterogeneity has surprisingly little effect on duration of unemployment. From this, we conclude that for leaving unemployment it does not matter where you are, but who you are'*.

5 Durlauf (1996) uses the term 'associational redistribution' to distinguish those policies which redistribute group memberships rather than income.

6 See Quenet, Nathanaelle (2005, p. 5) – 'A Grey Hope: Thin Territorial Identity among French Suburban Youth in Garges and Sarcelles'. The stories in this report are based on interviews with young people living in the banlieu Garges, ages 14-21.

7 Further on, Elster (1989, p. 100) observes that: *'Social norms must be distinguished from a number of other, related phenomena. First, social norms differ from moral norms. Some moral norms, like those derived from utilitarian ethics, are consequentialist. Secondly, social norms differ from legal norms. Legal norms are enforced by specialists who do so out of self-interest: they will lose their job if they don't. By contrast, social norms are enforced by members of the general community, and not always out of self-interest'*.

8 For a survey of the theoretical work and the empirical results see the study of Durlauf and Young (2001).

9 For more details see Hedström et al. (2003) and Wallandar (2002).

10 Lindbeck et al. (1999) analyze in a theoretical model the interplay between economic incentives and social norms within the context of a social system which offers ample welfare benefits. The authors extend the classical economic model of pure individual preferences by introducing social norms, focusing on two types of choice: political and economic. The political choice implies that the individual expresses his/her political option with regard to welfare policies as a voter (meaning how large the transfers should be), being aware of the consequences of the chosen option for the own economic situation. The economic choice refers to the individuals' decision whether to work or live off public transfers.

11 The blossoming literature on social networks and their impact on labor market outcomes of individuals is summarized by Ioannides and Loury (2004) in a comprehensive overview.

12 Kuhn and Skuterud (2000) bring evidence in their analysis that the use of Internet for the purpose of job search increased over the last decade and even exceeded traditional methods such as services of private employment agencies or contacting friends or relatives. In 1998, 15% of unemployed jobseekers used the Internet to look for employment.

13 For more details on the main criticism points see also Manski (2000) and Jenks and Mayer (1989).

14 Existing datasets do not typically allow the behavior of relevant peer groups to be properly measured. See Manski (2000), Durlauf (2001), and Moffitt (2001) for more details.

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