WOMEN'S NETWORKS

AND THE EMERGENCE OF LEADERSHIP

Maria Minniti

Professor and Bobby B. Lyle Chair of Entrepreneurship
Cox School of Business
Southern Methodist University
PO Box 750333
Dallas, TX 75275 USA
+1 (214) 768-3145
mminniti@cox.smu.edu

1 - Introduction[1]

In October 2006, the Norwegian Nobel Committee awarded the Nobel Peace Prize to

Muhammad Yunus and his Grameen Bank for their efforts to promote economic and social

development. Dr. Yunus, an economist from Bangladesh, developed microcredit into one of the

most important and successful instruments in the struggle against poverty. More than 97 percent

of the Grameen Bank's borrowers are poor women who, in most cases, use their loans to start micro-businesses and, by doing so, change their lives and those of their communities. There is not a more compelling example of the contribution that women can make to the economy and society than that provided by these women who, in spite of incredible odds, have emerged as leaders and agents of change in their communities.

Even in economies where the gender gap is still widest, and women face significant institutional constraints, their educational accomplishments have improved remarkably.[2] Considering the phenomenal rise in women's education, and the dramatic fall in fertility, one would expect female participation in public life to be increasing. And yet, across all countries (albeit to different degrees), the participation of women in all aspects of public life is still lagging significantly behind that of men and does not match their educational achievements (for example, see Majbouri 2012).

Formal and informal institutions are a big part of the problem: In many countries, women do not have the same rights enjoyed by men. However, even when some relevant institutional constraints are relaxed, the visible participation of women in public life is neither easy nor quick to develop. Why?

The emergence of effective and sustainable leadership (by either men or women) is always a "bottom-up" phenomenon. Thus, it rests significantly with the women themselves. All human action is embedded in networks of social relationships that determine and legitimize what is acceptable or desirable. By observing and interacting with other individuals, human beings acquire information and skills. This web of interactions is usually referred to as a person's social capital and provides cues and resources for action, influences decisions, and legitimizes

---

[2] Nonetheless, women still account for two thirds of the world's 774 million adult illiterates, a proportion that is virtually unchanged over the past two decades (United Nations 2010).

activities. Although all individuals are affected by the available social capital, women are particularly influenced by it because of their tendency to be less mobile and more reliant on localized networks (Allen et al. 2006). In certain regions, for example, women may lack knowledge about the activities necessary to enter and succeed in the labor force. Because of institutional constraints, women more than men may lack the skills and tools necessary to cope with ambiguity. As a result, the existence, depth and size of women's networks is clearly important in explaining the gender gap in public life participation.

The influence of networks may be thought of as being produced by network externalities. A network externality exists when the action of one person influences (positively or negatively) the actions of others. Because of network externalities, the perceived returns to any particular action increase with respect to adoption (Minniti 2005). In other words, the more people have already performed an action, the lower the opportunity costs become for any additional person who decides to repeat it. Everything else being the same, the larger the number of role models a woman observes, the lower the ambiguity she experiences. Notwithstanding the institutional constraints that may be imposed on women in any country or community, the participation of women in public life is a grass-roots phenomenon in which women themselves create a "culture" of their own influence and position in society to be embraced and followed by other women.

The development of networks and the presence of role models lead organically to the emergence of leaders: individuals who not only become visible in public life but are also able to influence it and change it. Of course, the criteria by which a community grants leadership status are shaped by culturally available ideologies about what it means to be a leader. In most cultures, this is associated with features such as the ability to be decisive, assertive, and independent, characteristics that are usually associated with men (Bailyn 2006, Dennis and Kunkel 2004). By

contrast, women are thought to be better suited to be leaders with respect to children or other situations in which patience and nurturing are seen as being more important (Fletcher 2004, Giscombe and Mattis 2002). While these are certainly important tasks, they are often perceived as somewhat inconsistent with leadership roles in public life. Networks, on the other hand, provide scope and support for the development of leadership characteristics.

As a result of women's tendency to exhibit limited mobility, and human beings' heavy reliance on social cues, the emergence of social capital conducive to women's participation in public life and of female leadership (in all its forms) is particularly dependent on the creation of strong networks that increase the number of female role models. Thus, the creation of networks is a necessary, though not sufficient, condition for the participation of women in public life.

Section 2 of this text describes social capital and why and how it matters for the emergence of women as agents of change. Section 3 highlights systematic differences in access to networks and self-perceptions across genders and discusses why they are important for women's behavior. Section 4 discusses what we know about women's networks and when they emerge. Section 5 explains why networks produce conditions within which some women may emerge as leaders. Section 6 closes the loop by discussing why leaders are important in the creation of social capital conducive to the increased participation of women in public life. Section 7 summarizes and concludes.

2 - Social capital

The goal of this section is to discuss briefly how social capital contributes to the creation of an environment conducive to women's participation in public life and in the creation of a civil

society. Recent empirical studies of individuals' behavior have shown the particular importance of social capital for women and the existence of remarkably consistent differences in accessing it across genders. For example, using a large representative sample of men and women from a variety of countries, Allen et al. (2006) have shown that men have more role models and social connections than women and tend to have a more optimistic perception of their abilities.

The concept of social capital has its roots in classical sociology. Early studies stressed the importance of developing the individual in social organizations (Burt 1992). Later conceptualizations included not only social relationships among individuals, but also the shared norms and values associated with them (Walker et al. 1997). To eliminate some of the confusion generated by such a variety, Adler and Kown (2002) summarized many of the definitions used in the literature by classifying them and distinguishing them on the basis of where social capital is assumed to reside. According to their classification, two main approaches can be identified.

The first approach considers social capital to be a resource lying in the interactions between individuals. Within the context of this first approach, Bourdieu (1986) defines social capital as the sum of the actual or potential resources necessary for the existence of a network of formal or informal relationships. That is, the first approach considers social capital an attribute of the individual rather than the social structure, and adopts an individual-based view in which individuals access social capital through their connections.

The second approach views social capital as the social structure of a group of individuals and the specific linkages that provide cohesiveness among them, thereby facilitating the achievement of shared goals. Within this context, Coleman (1990) describes social capital as consisting of the links between the human nodes of interactions in a group or between groups. In other words, according to Coleman, social capital exhibits four main characteristics. First, it has,

at least in part, the characteristic of a public good in that it is not excludable (it is not a private property). Second, it is specific to a given society or group. Third, it has value only when individuals of a particular group or society actually use it for their activities. Fourth, it emerges from, and changes with, existing social structures (such as, for example, memberships or families). Thus, according to Coleman, social capital is an attribute of the social structure in which a person is embedded. It is not provided to individuals through the links in their social networks; rather, it is the links of such networks and it facilitates certain actions of the individuals who are within the structure.

Economists conceptualized social capital as well. According to Becker (1996), for example, social capital takes the form of preferences developed through past experiences. In general, however, economists treat social capital as a resource capable of creating untraded interdependencies and of producing trust, thereby reducing transaction costs and encouraging sustainable cooperative behavior (Bruderl and Preisendorfer 1988). Thus, social capital is viewed as a mixed-public good that provides simultaneously private and public benefits.

Here, I define social capital broadly and adopt both Coleman's and Becker's points of view. Specifically, I view social capital as a public resource existing independently of any particular individual actor, based on established group preferences, and able to generate value (positive and negative) only in use. I also view social capital as having an important influence on individual actions in a variety of ways, and as being an invaluable resource leading to the exchange of information, to knowledge spillovers, and to the establishment of routines and practices that increase cooperation and participation among individuals.[3]

---

[3] Some critics have defined social capital as a concept that means too many things to too many people. For a critical discussion of the concept see Durlauf (2002).

As mentioned above, the position occupied by women within the larger community is important because it affects their opportunity to observe role models and to acquire resources. To be distinctively conducive to women's participation, social capital needs to include equality of rights across genders, and allow women to discover and exploit the opportunities they perceive. Indeed, it is now well known that some of the most effective programs aimed at increasing women's participation in public life emphasize the need for social capital that is specifically valuable for women and capable of providing resources leading to the emergence of role models (Allen et al. 2006).

In 1988, for example, the United States Congress established legislation entitled the Women's Business Ownership Act of 1988 (HR5050). The Act called for providing seed funding for women's business centers through the U.S. Small Business Administration (a federal agency of the executive branch). With the passage of the legislation, an annual grant process was created that enabled the formation of women's business centers across the country. These community-based centers were charged with providing education, training, and technical assistance. Allen et al. (2006, p.30) showed that by 2006, about 100 women's business centers had been created throughout the country. The success of women's business centers can be attributed to shared practices targeted specifically to women's situational needs, a relationship-oriented approach, but, in particular, to the networking activities that created a bridge between local social capital and individual women.

3 – Gender asymmetries in the access to networks and role models

When the appropriate social capital is lacking, the creation of networks is a necessary, though not sufficient, condition for the participation of women in public life -- a phenomenon

which, in turn, increases the amount of distinctively female social capital. The purpose of this section is to highlight systematic differences in access to networks and self-perceptions across genders and discuss how they influence women's participation in public life. Well established literature exists on the importance of networks in general, and among women in particular (see Aldrich 1999 and Aldrich and Zimmer 1986, among others), and general agreement exists that women, on average, have more limited access to networks than men and, in some cultures, have access to fewer social resources (Allen et al. 2006).

From an historical perspective, the development of women's networks usually coincides with some legislative cornerstones and results in an increase in the number of women participating in organizations and entering the labor force (Goldin 1990).[4] Indeed, when talking about the paucity or narrowness of women's networks, discrimination is often mentioned as a cause of the observed gender differences. In the United States, for example, issues of discrimination have been discussed in the context of earning gaps (Blau and Khan 2007), rationing in capital markets (Verheul and Thurik 2001), and task assignments and professional recognition (Bertrand and Hallock 2001, Goldin and Rouse 2000) among others. Within the labor market, for example, a division of labor exists that distributes men and women differently across different professions and, even within professions, assigns them different tasks. Unfortunately, however, discrimination is very difficult to document, and even harder to measure, especially in the context of developing economies where data are scarcer.

While institutional discrimination is a contributing factor (in some countries more than in others), Newmark and McLennan (1995) and Kanazawa (2005) have shown that a significant portion of gender differences in networking stems also from different family commitments, as

---

[4] For example, in the United States, it developed with the Civil Rights Act of 1964, the Equal Credit Opportunity Act of 1975, the Affirmative Action Act of 1978, the Glass Ceiling Commission of 1991, and the emergence of powerful networking groups of women entrepreneurs' in the United States in the mid 1990.

well as gender segregation across work fields (fields that tend to employ women also tend to pay less). This argument is supported by the observation that, in the US, men as well as women earn less in workplaces that employ predominantly women (Devine 1994a, 1994b). Along similar lines, Madichie (2009) provides some evidence that the relevance of the age-long glass ceiling may become questionable as women's career progression prospects in the corporate world are improving significantly, even in some African economies. Empirically, evidence about the root causes of differences between female and male networks is much more difficult to document.

Figure 1 – Percentage of surveyed individuals who had met at least another entrepreneur in the 12 months preceeding the GEM survey by gender
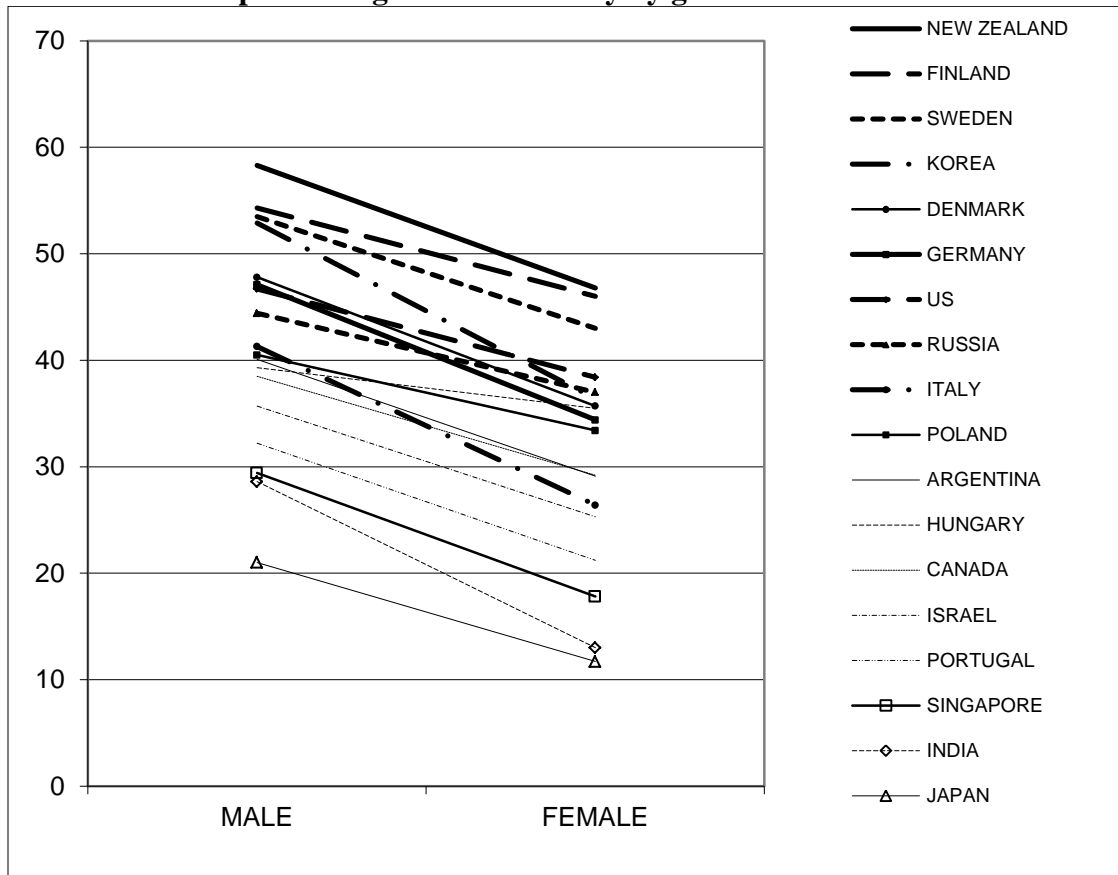
Source: Gobal Entrepreneurship Monitor (GEM) data 2006.

In an attempt to fill this gap, we can look at data from the 2006 Global Entrepreneurhsip Monitor (GEM) project. The GEM project aims at measuring the number of individuals who are involved in starting businesses.[5] GEM data show that knowing other individuals who have started businesses is a very strong indicator of the likelihood that a person will also start a business. However, as Figure 1 shows, across a large number of countries, fewer women than men know other people who have started a business or were in the process of starting one.

Specifically, Figure 1 shows the number of women compared to men who had met at least one other entrepreneur in the 12 months preceding the GEM survey. Regardless of their country of origin, there are significantly fewer women than men who know entrepreneurs. These gender differences are statistically significant. The magnitude of these differences and their significance, however, are strongly reduced (and in some countries eliminated) when only women who are starting or have recently started a business are compared to their male counterparts. In other words, when men and women with converging behaviours are considered, we find that their access to role models is more similar. Albeit merely suggestive, this evidence is consistent with the literature cited earlier and supports the claim that role models and the associated networks are crucial factors in the decision to start a new venture. More in general, networks serve as vehicles to create the critical mass necessary for the visibility and legitimization of actions.

Leadership too emerges more efficiently in the context of networks. Importantly, leadership traits are not congenital; for the most part, leaders are made. In fact, leadership is a cognitive category that is learned most effectively when networks, and the resulting role models, are present. A significant amount of research in the social sciences has established the

---

[5] The Global Entrepreneurship Monitor (GEM) project is an ongoing large scale project designed to collect data on entrepreneurial behavior across countries. Each year, a new randomly-drawn representative sample of population is surveyed in each country to identify individuals who, at the time of the survey, own and manage a business or are in the process of starting one. For more information on GEM visit www.gemconsortium.org.

importance of role models for the development of leadership traits. In psychology, for example, Baron (2000) and Begley and Boyd (1987) have discussed the importance of role models because of their ability to enhance self-efficacy. In economics, Harper (2008) and Parker (2008) have discussed the importance of teams and formal networks, respectively. In sociology, Aldrich (1999), among others, has discussed the role of personal networks and their ability to enhance confidence by providing advice, support and examples.

Leadership is expressed in the way individuals address challenges and opportunities and it is strongly associated with the perception of having control of one's actions and with self-efficacy. Self-efficacy refers to the subjective belief that one is capable of performing in a certain manner to attain certain goals (Bandura 1997). Clearly, people will be more inclined to take on a task if they believe they can succeed. The stronger the self-efficacy, the more active the efforts, since people generally avoid tasks where their self-efficacy is low, but will engage in tasks where their self-efficacy is high (Bandura 1997, Zhao et al. 2005). Boyd and Vozikis (1994) too have shown that individual self-confidence, defined as a person's belief in her capability to perform a task, influences the development of both intentions and actions.

With respect to gender differences, Koellinger et al. (2011) found that, similarly to men, a very strong positive and significant correlation exists between confidence in one's own skills and a woman's likelihood of starting a business across countries, regardless of per capita GDP. However, they also found that the confidence in one's own skills was much higher in men than women with otherwise similar characteristics.

GEM data are again useful as they can be used to highlight a basic difference between the leadership attitudes of women and men when looking at patterns of business creation. In Figure 2, perceptual differences between men and women appear systematically across all countries in

11

the sample, with men exhibiting significantly higher confidence in their own skills, knowledge and ability to start a business. Clearly, Figures 1 and 2 provide only descriptive evidence. Still, such evidence is consistent with additional empirical evidence showing that, everything else being the same, women tend to participate in fewer and narrower networks, to have fewer role models, and to exhibit lower levels of self-efficacy. These two factors are highly correlated and, in turn, influence women's opportunity costs of participating in public life.[6]

Figure 2 – Percentage of surveyed individuals who thought of having the skills, knowledge and ability necessary to start a business by gender
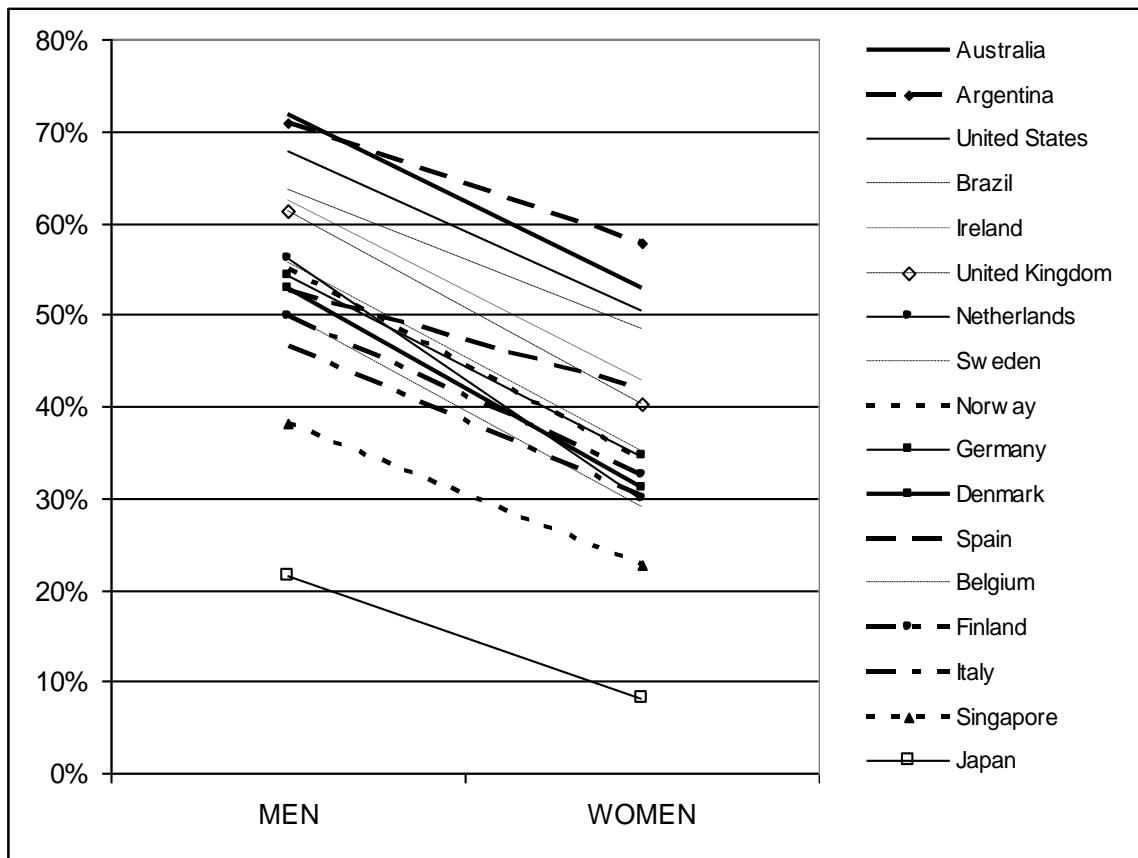
Source: Gobal Entrepreneurship Monitor (GEM) data 2006.

---

[6] Figure 1 and Figure 2 show that men have more access to role models and are more confident in their own skills than women across all countries in the sample. Noticeably, however, they also show that differences are more pronounced in some countries than others (the slopes of some country bars are steeper). In Figure 2, for example, 59 percent of Canadian men are confident in their business skills compared to 46.5 percent of Canadian women. In India, on the other hand, 58 percent of the men are confident in their business skills compared to only 29.3 percent of the women. These cross-country differences suggest that cultural, economic and social factors that vary across countries influence both the average prevalence rate of self-confidence with respect to starting a business and also the extent to which men and women exhibit differences in their self-perceptions (Koellinger et al. 2011).

4 – Female networks and the emergence of role models

Having highlighted the systematic differences in networks and self-perceptions across genders and why they are important for women's behavior, the goal of this section is to discuss what we know about women's networks and their internal structure.

Compared to men, women who may aspire to achieve leadership positions face lower social support for learning how to credibly claim such a role. As mentioned earlier, people learn by identifying with role models, experimenting with new identities, and by assessing the results of such experiments against their own self-imposed standards and the acceptance they receive externally (Ibarra, 1999). Women, however, encounter few role models whose styles are feasible or congruent with their self-images (Ely, 1994; Ibarra, 1999). In addition, institutional constraints (sometimes as strong as laws and regulations, religious beliefs, and family structures – see also Footnote 6) often expose women to stronger stigmas than men and give them less latitude for experimentation (Bell and Nkomo 2001). In turn, this increases women's opportunity costs of becoming visible and makes them more averse to failure (Kanter, 1977). Following a vicious cycle, the presence of few women in leadership positions signal that being female disqualifies a person from such a role, perhaps because of inability to succeed. This, of course, further dampens the leadership potential of women who may be interested in trying.

Although the importance of women's networks was studied already in the second half of the 1980s, few studies on the topic existed outside the United States. Cromie and Birley (1992) found few differences in networks across genders in a study of Northern Ireland. Along similar lines, Lerner et al. (1995) showed that network affiliation, human capital, and motivation were more effective at explaining performance than social learning or environmental theories. In this

area, of particular relevance are studies distinguishing between the influence of formal and informal networks (Aldrich 1999). Gatewood et al (2009) found that women spend a considerable amount of time using both formal and informal networks in their search for capital, because of the importance of the venture capital industry as a provider of growth capital and its reliance on its network for investment referrals.

In many cases, the networks women rely on operate quite differently from the networks men rely on. Allen et al. (2006), for example, found important distinctions between the content and relevance of men's and women's networks, and noted that women's networks were organized around spheres of work, family, and social life. Their work showed that women's networks were largely similar to men's in terms of activity and density, but that men's networks included very few women, whereas women's networks were more likely to include men. Women and men also use their networks differently. Whereas men's networks are homophilous (i.e., mostly men) and multipurpose, women tend to build functionally differentiated networks, obtaining instrumental access from men and friendship and social support from women (Ibarra, 1992). Men are better resourced, and women are easier to relate to on a personal level (Ragins and Kram 2007). Women in low-income countries, for example, often have significantly smaller networks and less geographical mobility (Allen et al. 2006). As a result, they construct relatively personal but strong social ties that allow them to substitute these personal network relationships for some of the formal legal contracts used to govern most business transactions (Chamlee-Wright 1997).

In an interesting study, Hampton et al. (2009) studied the network development activities of female entrepreneurs in technology-based ventures, and found some evidence that even in a highly specialized and knowledge intensive sector, women seem to develop different approaches

to networking and participation than their male counterparts. Abell et al. (2001), for example, examined the link between social capital and the propensity of women to get involved in employment activity and noted that women seems to rely significantly on three types of networks. First, legitimizing networks, which consist of strong ties between a woman and others, and confer legitimacy upon the individual's decision to become self-employed; second, opportunity networks, which consist of ties between the women and others who operate in industries offering entry opportunities; third, resource networks, which consist of relations between the individual and others who have the resources and appropriate human capital for entry. In line with the literature stressing the importance of role models emerging from networks, their work confirms that having self-employed friends has an impact on one's decision to become self-employed.

In conclusion, the position of women within the larger community is important because it affects their ability to observe role models and to acquire resources. In general, women seem to forge egalitarian coalitions and long-term relationships based on affective ties, whereas men tend to form hierarchical coalitions and short-term relationships based on mutual interest and weak ties.

5 - The internal dynamics of networks

The creation of social capital rests on the existence of visible and active networks of women which, as discusssed in the previous sections, tend to be less frequent, smaller, and operate differently from the networks of men. The purpose of this section is to explain why networks are such powerful vehicles and produce conditions that facilitate the emergence of female leadership.

How networks influence the behavior of individuals and, specifically, women, may be grasped by thinking about it as being the source of externalities. We may call them perceptual externalities or, more commonly, network externalities. Fads and fashion, for example, are significantly influencd by network externalities. In regions, countries or industries where many women are already involved, the concentration of women makes that environment more suitable for other women to follow.

The self-reinforcing nature of network externalities is at the root of the important role played by networks in favoring the emergence of high female participation in public life. This argument rests on the observation that when the number of women is relatively large, more information about the characteristics, requirements, needs, and rewards of women in a particular context is available and, usually, solutions are already available and have become almost a routine. The strength of the network externality is also a measure of the degree of interdependence among people. The relative strength of this interdependence, in turn, can be thought of as a bandwagon effect (Granovetter 1978, Granovetter and Soong 1983). In a bandwagon model, a community is defined as a set of individuals in which one agent's decision to adopt a certain behavior generates a positive feedback mechanism. The feedback mechanism provides information to new agents and encourages further adoptions. In this context, thresholds are used to account for the fact that individuals have different participation propensities and that each member will join in only if the bandwagon pressure exceeds the member's threshold. As a result, the extent of bandwagon diffusion in a community depends on the distribution of thresholds across members, as well as on the network of relations existing among members (see also Minniti 2005).

Traditionally, bandwagon effects and network externalities have been studied using the mathematics of non-linear path-dependent processes. Also known as Polya processes, non-linear path-dependent processes have been used in social sciences since the early 1980s (Arthur 1989, Kindleberger 1983). In these dynamic systems, positive feedback causes certain patterns to be self-reinforcing. Of course there is a multiplicity of such patterns, and since these systems tend to be sensitive to early dynamic fluctuations, they are very well suited for describing how local externalities matter in determining the social make-up of a region. These models support also empirical findings showing the existence of non-linearities in social interdependence related to phenomena such as crime, youth drop-out rates, viral deseases, etc. (Crane 1991, Gleaser et al. 1999). In general, non-linear path dependent processes allow researchers to understand how the accumulation of decisions taken by different individuals may push the dynamics of individuals' behavior into a pattern and, eventually, lock in the structure (Arthur 1989). The dynamics pushing people into pre-established patterns implicitly illustrate why women networks are conducive to increased rates of female praticipation in public life.

Finally, it should be noted that network externalities can be both positive and negative in the sense that they can facilitate women's participation or inhibit it by creating a low involvement trap. Positive externalities reduce transaction costs, information search costs, and contract costs. This has a positive effect on women's choices because it reduces the risks of and need for experimentation. Negative externalities, on the other hand, can have a negative effect if they contribute to reinforcing routines and practices that prevent women from increasing their participation in public life. Excessive reliance on small clusters of local acquaintances, for example, may retard the triggering of a localized path-dependent development process (as described earlier) by formally and/or informally reinforcing the status quo.

In conclusion, positive network externalities are triggered by the presence of women's networks because the latter facilitate other women's exposure to opportunities that would not otherwise be easily available. In addition, networks eliminate the liability of newness and legitimate women's participation in public activies. With their actions, network participants create, develop, renovate, and protect social capital. Thus, they are, at the same time, creators and users of social capital.

6 - Networks and the emergence of female leadership

Leaders are important in the creation of social capital conducive to the increased participation of women in public life. The development of leadership capabilities is primarily the result of a relational effort. In other words, a leader emerges in the context of a set of relationships with and among other individuals, and networks (both formal and informal) play a key role in the process of becoming a leader.

As mentioned in Section 3, the formal and informal networks of men and women tend to differ systematically. Because of a preference to interact with individuals of the same sex, the composition and structure of men and women's networks differ (Aldrich 1999, Ibarra 1992, McPherson et al. 2001). This, in turn, influences their ability to establish a credible leadership identity. In general, the more prominent one's position is, the less likely formally established routines are to apply and the more critical one's informal network becomes (Kanter, 1977). As a result, expanding the range of relational efforts and increasing their depth is a fundamental component of one's ability to emerge in a leadership position. Since women have access, on average, to narrower networks and fewer role models, it is more difficult for them to develop as

leaders.[7]   Informal networks tend to replicate these features. They are important because, by increasing the likelihood and speed of creating reputation and, ultimately, influence (Granovetter 1985, Podolny and Baron 1997), they too shape leadership trajectories.

In light of gender differences and the need to interact with both genders in a variety of contexts, women need to learn how to expand and deepen their networks by finding more occasions to interact with key players both internal and external to the networks themselves. Interestingly, as Ely et al. (2011) point out, women tend to be more reluctant to engage in networking activities because the latter are perceived as being analogous to "using people" (which has a negative connotation), as opposed to a way to convey a vision or exchange information (which has a positive connotation). Effective leadership, however, requires leaders to communicate and negotiate on a routine basis. Thus, increased participation in networks helps women to understand that going beyond one's comfort zone is personally desirable and also necessary if one wants to succeed in becoming a player in any public arena.

While developing programs aimed at fostering the leadership skills of women working in corporate America, Ely et al. (2011) found that when participants justified their networking efforts to a larger purpose, such as organizational goals, they behaved less reluctantly. In addition, they found that women viewed occupying leadership positions as a costly activity difficult to reconcile with family and work tasks. Participation in networks provides examples and strengthens the sense of self-efficacy necessary for playing a leadership role. An increased locus of control, defined as the perception of being able to self-determine one's destiny, tends to be associated with a heightened entrepreneurial attitude and more involvement in social interactions (Minniti 2005). Once the process of self-discovery and the perception of self-

---

[7] This has been discussed extensively in the organizations and leadership literature. For example, see Ely et al. 2011, McPherson et al. 2001, and Mehra et al. 1998.

efficacy are triggered, history has shown us that women tend to be creative and resourceful in balancing work and life demands and are well able to integrate networking into daily activities (Minniti 2009).

In summary, the perceptions of self-efficacy and control on one's own destiny are important, as the reasons why specific individuals emerge as leaders are fundamentally the result of how one perceives his or her own identity (van Knippenberg et al. 2004). A leadership identity emerges when an individual both internalizes and develops a focused sense of purpose. DeRue and Ashford (2010) argue that being able to internalize one's own leadership identity requires participation in social processes through which an individual is recognized as a leader by others. The negotiations and feedback processes required for the establishment and public recognition of the role of leader to reinform and affirm the position or void the claim.

Furthermore, a leadership identity emerges when an individual exhibits a strong sense of purpose. In fact, the exercise of leadership is most effective when individuals pursue objectives that are complementary to their personal goals and are aimed at advancing the collective good (Fu et al. 2010, Quinn 2004). Because of an intrinsic human need for relatedness, leaders who pursue such objectives perceive themselves, and are perceived by others, as being more reliable and genuine (Fu et al., 2010). The support of followers further enhances the sense of control and purpose of these leaders and encourages them to move forward.

Conclusions

Like any other form of capital, social capital can be appropriated and converted into other forms of capital; an individual (or group of individuals) who can appropriate it, can transform it into opportunities for advancement and change. From the individual's perspective, social capital

is a resource only as far as one is able to actually use it and extract value from it. For social capital to have a real positive value to women, they must have access to it and be able to use it to pursue their own goals. This, of course, does not happen overnight. In most cases, the initial development of social capital takes place within an exclusive network. Thus, women must first connect to a network.

Because of the reinforcing effects of network externalities, networks help in various phases of the creation and development of leadership necessary to create a virtuous cycle which, over time, reinforces formal and informal institutions and creates additional social capital (as a form of public good). Each woman has a decisional threshold, namely the point at which her personal returns become positive and she decides to become involved in public life. At any point in time, the sequence of individuals' decisions made on the basis of these thresholds determines the local amount of social capital. For any region, there is a critical number of women whose involvement represents the regional threshold, so that their involvement in public life becomes visible, and causes more of them to become active and visible themselves.

Throughout this process, assuming a leadership role entails not only figuring out what to do and how to do it, but also positioning oneself to feel legitimate to execute one's plan while understanding the potential sources of others' opposition. Since prospects of employment, education, and other economic circumstances differ across individuals, women face different opportunity costs for the same action. However, as with many other phenomena, perceptions about the desirability of a specific choice are formed and revised given the set of information provided by the individual's social capital (Lafuente and Salas 1989, Saxenian 1990). Women must come to see their own value and find ways to make it visible, learn about how others have

fared in similar circumstances, explore possible alternatives, and try to understand why others may oppose or discount their leadership (Ely et al. 2011).

Developing women's capacity to lead change is critical, as women often find themselves leading in highly uncertain environments where radical changes may be required. By definition, the ability to lead change depends on the effective use of persuasion and influence (Cohen and Bradford 2005). This is difficult for all individuals but it may be particularly difficult for women who may face a plethora of gender stereotypes. However, there is strength in numbers. This is why networks matter and leadership is contagious. The involvement of women in public life and as agents of change matters. It makes a difference for individuals, for communities, for international relations and, ultimately, for world peace and the sustainable growth of the global economy.

References

Abell, P., R. Crouchley, and C. Mills, 2001. "Social Capital and Entrepreneurship in Great Britain," *Enterprise and Innovation Management Studies* 2(2): 119–144.

Adler, P. S., and S. W. Kwon, 2002. "Social Capital: Prospects for a New Concept," *Academy of Management Review* 27: 17–40.

Aldrich, H., 1999. *Organizations Evolving*. Sage Publications, London.

Aldrich, H., and C. Zimmer, 1986. Entrepreneurship through social networks. In: D. Sexton and R. Smilor (Eds.). *The Art and Science of Entrepreneurship*. Ballinger, Cambridge.

Allen, E., N. Langowitz, M. Minniti. 2006. *2005 Global Entrepreneurship Monitor Special Report: Women in Entrepreneurship*. Center for Women Leadership, Babson College. Babson Park, MA.

Arthur, W. B., 1989. Competing technologies, increasing returns, and lock-in by historical events. *Economic Journal* 99, 116-31.

Bailyn, L. 2006. *Breaking the mold: Redesigning work for productive and satisfying lives*. Ithaca, NY: Cornell University Press.

Bandura, A. 1997. *Self-efficacy: The exercise of control*, New York: Freeman.

Baron, R.A. 2000. Psychological perspectives on entrepreneurship: Cognitive and social factors in entrepreneurs' success. *Current Directions in Psychological Science*, 9, 15-18.

Becker, G.S. 1996. *Accounting for Tastes* (Cambridge, MA: Harvard University Press.

Begley, T. M., Boyd, D. P. 1987. Psychological Characteristics Associated with Performance in Entrepreneurial Firms and Smaller Businesses. *Journal of Business Venturing* 2(1), 79-84

Bell, E., and Nkomo, S. 2001. *Our separate ways*. Cambridge, MA:Harvard Business School Press.

Bertrand, M., K. Hallock. 2001. The Gender Gap in Top Corporate Jobs, *Industrial and Labor Relations Review*, 55, 3-21.

Blau, F.D., L.M. Kahn. 2007. Changes in the Labor Supply Behavior of Married Women: 1980-2000 *Journal of Labor Economics* 25(3): 393

Bourdieu, P. 1986 "The Forms of Capital," in *Handbook of Theory and Research for the Sociology of Education,* ed., J. C. Richardson (New York: Greenwood Press), 241–258.

Boyd, N. G., G. S. Vozikis. 1994. The influence of self-efficacy on the development of entrepreneurs. *Entrepreneurship Theory and Practice* 18(4): 63-77.

Bruckmüller, S., and Branscombe, N. R. 2011. How women end up on the "glass cliff." *Harvard Business Review*, 89: 26.

Brüderl, J. and P. Preisendörfer, 1988. "Network Support and the Success of Newly Founded Businesses," *Small Business Economics* 10: 213–225.

Burt, R. S. 1992 *Structural Holes: The Social Structure of Competition* (Cambridge, MA: Harvard University Press, 1992).

Chamlee-Wright E. 1997 Chamlee-Wright, E. 1997. *The Cultural Foundations of Economic Development.* Routledge. London and New York.

Cohen, A., and D.L. Bradford, 2005. *Influence without authority* 2nd edition. Wiley.

Coleman, J., 1990. *Foundation of Social Theory*. Belknap Press of Harvard University, Cambridge.

Crane, J., 1991. The epidemic theory of ghettos and neighborhood effects on dropping out and teenage childbearing. *American Journal of Sociology* 96, 1226-1259.

Cromie, S., S. Birley. 1992. "Networking by Female Business Owners in Northern Ireland," *Journal of Business Venturing* 7(3): 237–251.

Dennis, M. R., and Kunkel, A. D. 2004. Perceptions of men, women, and CEOs: The effects of gender identity. *Social Behavior and Personality: An International Journal*, 32: 155–172.

DeRue, D. S., and Ashford, S. J. 2010. Who will lead and who will follow: A social process of leadership identity construction in organizations. *Academy of Management Review* 35: 627–647.

Devine, T.J. 1994a. Changes in wage-and-salary returns to skill and the recent rise in female self-employment. *American Economic Review* 84(2): 108-112.

Devine, T.J. 1994b. Characteristics of self-employed women in the United States. *Monthly Labor Review* 117(3): 20-34.

Durlauf, S. N., 2002. Bowling alone: a review essay, *Journal of Economic Behavior and Organization* 47, 259-273.

Ely, R.J. H. Ibarra, and D. Kolb. 2011. Taking Gender Into Account: Theory and Design for Women's Leadership Development Programs *Academy of Management Learning & Education* 10(3), 474–493.

Ely 1994 Ely, R. J. 1994. The effects of organizational demographics and social identity on relationships among professional women. *Administrative Science Quarterly*, 39: 203–238.

Fletcher, J. K. 2004. The paradox of post heroic leadership: An essay on gender, power and transformational change. *Leadership Quarterly*, 15: 647–661.

Fu, P., Tsui, A. S., Liu, J., and Li, L. 2010. Pursuit of whose happiness? Executive leaders' transformational behaviors and personal values. *Administrative Science Quarterly*, 55: 222–254.

Gatewood, E., Candida G Brush, Nancy M Carter, Patricia G Greene, Myra M Hart. 2009. Diana: a symbol of women entrepreneurs' hunt for knowledge, money, and the rewards of entrepreneurship *Small Business Economics* 32, 2: 129-144

Giscombe, K., and Mattis, M. C. 2002. Leveling the playing field for women of color in corporate management: Is the business case enough? *Journal of Business Ethics*, 37: 103–119.

Gleaser, E., Laibson, D., Scheinkman, J., Soutter, C., 1999. What is social capital? The determinants of trust and trustworthiness. NBER Working Paper 7216.

Goldin, C. 1990. *Understanding the gender gap: An Economic History of American Women*. NY: Oxford University Press

Goldin, C., C. Rouse. 2000. Orchestrating Impartiality: The Impact of "Blind" Auditions on Female Musicians, *American Economic Review* 90, 715-741.Goldin, C. 1990.

Granovetter, M., 1985. Economic action and social structure: The problem of embeddedness. *American Journal of Sociology* 91, 480-510.

Granovetter, M., 1978. Threshold models of collective behavior. *American Journal of Sociology* 83, 1420-1443.

Hampton, A., Sarah Cooper, Pauric Mcgowan. 2009. Female Entrepreneurial Networks and Networking Activity in Technology-based Ventures: An Exploratory Study. *International Small Business Journal* 27(2), 193

Harper, D. 2008. Toward a theory of entrepreneurial teams. *Journal of Business Venturing 23: 613-626.*

Ibarra, H. 1999. Provisional selves: Experimenting with image and identity in professional adaptation. *Administrative Science Quarterly,* 44: 764–791.

Ibarra, H. 1992. Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Administrative Science Quarterly*, 37: 422–447.

Kanazawa, S. 2005. Is "discrimination" necessary to explain the sex gap in earnings? *Journal of Economic Psychology* 26(2): 269-287.

Kanter, R. 1977. *Men and women of the corporation*. New York: Basics Press.

Kindleberger, C., 1983. Standards as public, collective and private goods. *Kyklos* 36, 377-96.

Koellinger, P., M. Minniti, and C. Schade. 2012 "Gender Differences in Entrepreneurial Propensity." *Oxford Bulletin of Economics and Statistics* Forthcoming

Lafuente, A., Salas, V., 1989. Types of entrepreneurs and firms: The case of new Spanish firms. *Strategic Management Journal* 10, 17-30.

Lerner, M., C.G. Brush, R.D. Hisrich. 1995."Factors Affecting Performance of Israeli Women Entrepreneurs: An Examination of Alternative Perspectives," in *Frontiers of Entrepreneurial Research*, eds. D. Bygrave et al. (Boston, MA: Babson College), pp.308–322

Madichie, N.O. 2009. Breaking the Glass Ceiling in Nigeria: A Review of Women's Entrepreneurship. *Journal of African Business* 10(1), 51

Majbouri, M. 2012. Against the Wind: Labor Force Participation of Women and Economic Instability in Iran. Working Paper.

McPherson, M., Smith-Lovin, L., and Cook, J. 2001. Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27: 415–444.

Mehra, A., Kilduff, M., & Brass, D. J. 1998. At the margins: A distinctiveness approach to the social identity and social networks of underrepresented groups. *Academy of Management Journal,* 41: 441–452.

Minniti, M. 2009 "Gender Issues in Entrepreneurship." *Foundations and Trends in Entrepreneurship* 5(7–8): 497–621

Minniti, M. 2005. "Entrepreneurship and Network Externalities," *Journal of Economic Behavior and Organizations* 57(1): 1–27.

Neumark, D., M. McLennan. 1995. Sex Discrimination and Women's Labor Market Outcomes, *The Journal of Human Resources*, 30, 713-740.

Quinn, R. E. 2004. *Building the bridge as you walk on it: A guide for leading change*. San Francisco, CA: Jossey-Bass.

Parker, S.C. 2008. The Economics of Formal Business Networks. *Journal of Business Venturing* 23(6)

Podolny, J., & Baron, J. 1997. Resources and relationships: Social networks and mobility in the workplace. *American Sociological Review*, 62: 673–693.

Ragins, B. R., and Kram, K. E. (Eds.) 2007. *The handbook of mentoring at work: Theory, research and practice.* Thousand Oaks, CA: Sage Publications.

Saxenian, A., 1990. The origins and dynamics of production networks in Silicon Valley. Institute of Urban and Regional Development, UCA Berkeley, Working Paper 516.

United Nations (Statistics Division), 2010. The World's Women 2010: Trends and Statistics. http://unstats.un.org/unsd/demographic/products/Worldswomen/Executive%20summary.htm

van Knippenberg, D., de Dreu, C.K.W. and Homan, A. C. 2004. Work group diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology*, 89(6), 1008-1022

Verheul, I., R. Thurik. 2001. Start-up Capital: Does Gender Matter? *Small Business Economics* 16(4): 329–345.

Walker, G., B. Kogut, and W. Shan, 1997. "Social Capital, Structural Holes and the Formation of an Industry Network," *Organization Science* 8: 109–125

Zhao, H., S. E. Seibert, G. E. Hills. 2005. The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions. *Journal of Applied Psychology* 90(6), 1265–1272