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Book review:

Ronald S. BURT 2010

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Book review

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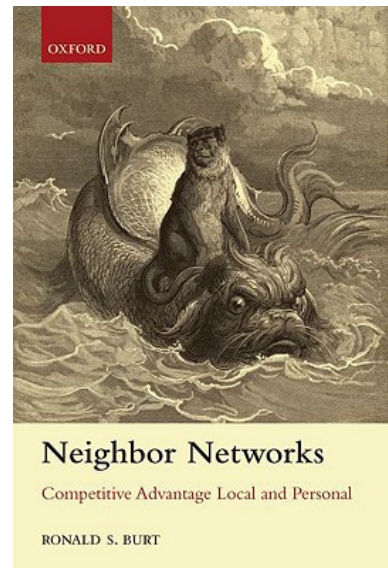
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Burt's theory of network advantages: act III

As in his previous book (Burt, 2005, hereafter referred to as "the 2005 book"), "Neighbor Networks: Competitive Advantage Local and Personal" is mostly based on different papers published by Ronald Burt over the last years. However, the book is not a mere collection but rather a consolidation of previous works. The author develops important efforts to show how his different pieces of work relate and combine into a broader consistent theory. He also provides more detailed arguments than in his papers and carefully investigates differences and similarities in results across various datasets. This book is the third step of an impressively coherent intellectual journey, the first act of which was the seminal "Structural Holes: The Social Structure of Competition" (Burt, 1992, hereafter referred to as "the 1992 book"). From then to present date, Burt has remained focused on a single question: how and why can the personal contacts structured around an individual increase her performance in the broadest sense (career progression, task performance, etc.).

The 1992 book represented a true theoretical breakthrough introducing a very simple concept, that of 'structural holes'. A structural hole consists in the absence of link between two contacts in a network. The theory developed in the book was that individuals whose networks have many structural holes (i.e. who have ties to members who are not connected to each other) would perform better than those with more closure in their networks (i.e. who mostly know people who know each other). As unconnected contacts tend to belong to different social groups they have separate information sources and will provide more varied information and resources. By contrast, when contacts are densely connected, they end up with similar information (Burt, 1992). Similarly, sparseness in the network might help spread information about the focal actor across the entire social structure, leading to positive outcomes in terms of reputation, through referral behaviors (Burt 1992). Another advantage of structural holes is that they confer a status of *tertius gaudens* to the focal



actor, a notion inherited from the simmelian sociology (Burt, 1992): due to the lack of a connection between the parties, the actor can manipulate them to her benefit, for example, by controlling and distorting the flow of information that is exchanged between the parties.

The concept of structural hole was not only simple; it was also very powerful as it could apply to a broad array of contexts. Indeed, as Burt's initial argument focused only on the purely structural aspects of networks, it could apply to networks with any types of nodes (individuals, teams, firms, etc.) and connected via all types of relationship (friendship, task interdependence, advice-seeking, alliances, etc.). Moreover, the 1992 book not only brought theoretical developments but also an entire set of new measures. This opened a period of theoretical testing, leading to an important empirical support for the theory across a number of datasets and research questions. As a result, the theory had a significant impact for many issues in management, such as career development, team management, competitive dynamics, creativity, entrepreneurship, alliances, etc. As an illustration of the wide scope of applications of the theory, the 1992 book alone yielded a total of 6808 citations in Google-Scholar, 2046 in Scopus and 1632 in ISI Web of Science (search performed on December 2nd 2010).

The theory was also successful for another reason: as formulated in the 1992 book, it left a number of promising research questions unanswered: what are the boundary conditions for structural holes (i.e. do structural holes always provide benefits)? Do these benefits last over time? How important are the benefits related to information access as compared to the benefits associated with the diffusion of information (reputation)? How can one be sure that the effect of structural holes is not a correlate of other variables (e.g. personality)? Since 1992, Ron Burt has methodically addressed these questions in an attempt to increase the internal validity of his theory of network advantages. A significant portion of the work presented in the 1992 book was dedicated to identifying the boundary conditions of structural holes (gender, organizational position). By studying more specifically the diffusion of information and how structural holes could affect reputation, the 2005 book endeavored to distinguish between the different advantages of structural holes (information acquisition versus information diffusion). It also introduced a dynamic approach of the concept of structural holes, studying their stability over time.

In "Neighbor Networks: Competitive Advantage Local and Personal", Ronald Burt takes a further step for a better understanding of the effect of structural holes. In a nutshell, his objective is to determine whether the advantage associated with structural holes is related to the notion of social distance, an idea that was implicit in the 1992 book: do individuals who span structural holes perform better thanks to an access to more distant persons (friends of friends of friends, etc.) or is it a more local process? Do friends of friends matter more than friends? For specialists studying social networks this question is important, as a significant body of research in the field has relied on the assumption that the answer to this is yes. However, in this book, Burt presents evidence suggesting that most of the advantages obtained through networks are related to local processes. I will address the implications of such findings later on.

In order to address this question, Burt used the same blend of elements as in his previous books: (a) statistical analyses carried on distinct data sets across which he carefully compares results; (b) highly inventive and expressive representations of data designed to explain his points as well as to identify important patterns ; (c) an exhaustive review of recent social networks studies; (d) systematic illustration of the findings and arguments with anecdotes from field experience or parallels with everyday life; (e) frequent connections to the findings of important theories (unrelated to social networks) in economics, psychology and sociology. This diversity of sources makes the arguments convincing and avoids the risk of falling into the two extremes of theoretical building: too much abstraction or too much numbers.

Content overlook

The introduction (chapter 1) provides a crystal-clear summary of the central argument of the book: network advantages are an outcome of your personal portfolio of direct relationships, not of your integration in the social structure on a broader level. This is to say that your direct contacts, people you personally know, are more important than the manner in which they connect you to the rest of the social structure, through indirect contacts (friends of friends of friends...). There is also a short overview of the book that helps to understand how the different chapters relate to one another. As each chapter goes very deep into theoretical developments and empirical findings, it can be particularly helpful to return to this in the course of your reading so as to get a broader picture.

In Chapter 2, the author makes it clear that the cumulated findings supporting the positive effect of structural holes could be explained through three distinct mechanisms: global, local (in the social, not the geographical sense of the word) and personal processes. The global process hypothesis will sound familiar to network specialists: a personal network provides benefits to a focal actor when it offers easy access to distant others. Network benefits are therefore related to the unique access to diverse and distant information. As Burt points out, for this hypothesis to be valid one has to assume that information can travel along social ties in a quick and unaltered way.

The local process hypothesis proposes that structural holes across direct contacts are not a proxy for structural holes across distant connections: direct contacts are the sources of the advantage. For Burt, this is consistent with an approach of information viewed as being fundamentally sticky and hard to move from one dyad to the other without important loss of value. Regardless of the potential access you have to valuable very socially distant others (friends of friends of friends), information will not travel from them to you. In order for you to receive information, it has to be held by people you know personally.

The personal process hypothesis proposes that structural holes do not have a positive impact on performance through access to valuable resources or information but rather through the type of emotional and cognitive skills that people managing sparse network tend to develop. Structural holes entail exposure to diversity in interpretations and opinions, which in turn favors the development of specific abilities to manage

and combine diverse information, ultimately leading to higher individual performance. In other words, structural holes would be “a forcing function of human capital” (Burt 2010: 52).

Burt then states what empirical findings should be expected in order to discriminate between these rival hypotheses. The global process hypothesis will be supported if indirect access to structural holes (structural holes between friends of friends) can better account for performance than direct access to structural holes (structural holes between friends). The local process will be supported if it actually explains performance, but to a lesser extent than direct access (distant contacts are associated with imperfect information transfer, therefore accounting for a lower share of performance variance). The personal process will be supported if indirect access to structural holes does not provide any benefit (structural holes between friends of friends does not matter at all), whereas direct access does. Here, the exact difference between the local and the personal process hypotheses may seem unclear as it relies on the narrow gap separating a proposition like “indirect access to structural holes provide no benefit” from a proposition such as “it provides less benefits than direct access to structural holes”. The reader may wonder why Burt did not simply measure the emotional and cognitive skills he refers to when describing the personal process hypothesis in order to determine whether or not they mediate the structural holes/performance relationship. Obviously the author intends to focus only on the structural dimensions of networks and does not wish to consider possible measures for the skill-related psychological characteristics of nodes (one reason may become obvious when reading Chapter 8: Burt does not seem to believe in the validity of measures supposed to capture psychology-based concepts through surveys).

Chapters 3 and 4 present a collection of empirical evidence intended to explore the validity of each of these hypotheses (global, local, personal), using different datasets. Some are new and others will sound familiar to readers of the 1992 and 2005 books. In chapter 3, Burt looks at what he calls “balkanized networks”, referring to settings where the overall organization of workflows creates natural distances between groups (e.g.: departments that are far apart or that are separated by strong organizational boundaries). He looks at how direct and indirect access to structural holes impact compensation and performance evaluation within a sample of employees involved in the Asia-Pacific launch of a new product at a software firm. He also investigates the impact on performance evaluation and creativity evaluation with a sample of supply chain managers in a large American electronics company. In chapter 4, Burt repeats this but in settings where the overall network of relations across employees is far more dense. He analyzes compensation in a sample of employees of the HR department of a large commercial bank and in a sample of bankers working for a large financial company. He also looks at the probability of getting elected to the “institutional investor all-America research team” in a sample of analysts in another division of the same company. Results reported in these chapters are impressively convergent: in every setting, direct access to structural holes actually impacts performance but indirect access does not. All in all, if we comply strictly with the ideas

developed in chapter 2, this is supposed to support the “personal process hypothesis”, even though, as previously mentioned, it can seem unclear to the reader how these findings completely invalidate the “local process hypothesis”. Nevertheless, one solid conclusion can be drawn from these chapters: network advantages are not about obtaining access to distant others, there is no “global process” here. This result is very new and entails significant implications that I will address later, in the third section.

Chapter 5 attempts to verify whether this pattern is consistent across levels of analysis. Burt refers back to the input-output tables from the US Department of Commerce that he used in the 1992 book. This table can be considered as a network of industries connected through buyer-supplier relationships. Using price-cost margins as an index of industry performance, he found that both direct and indirect access to structural holes had an impact, thus contradicting results at the individual level. Yet, careful analysis of this effect reveals that this is true mostly in specific contexts, in particular for industries that have few structural holes between their direct contacts but many structural holes between indirect contacts. The author builds an interpretation of this result, which leaves open questions concerning the transferability of the arguments from one level of analysis to the other. Again, as for the 1992 book, Burt’s ambition was to build a “meta theory” that applies to different levels of analysis. Yet, inter-industry networks are hard to interpret for management scholars who are more familiar with networks of individuals, teams or firms. Those specifically interested in strategic management and inter-organizational networks will not find evidence of transferability from the individual to the firm level in the book, even though Burt does refer to two unpublished manuscripts (Burt 2010: 149) that seem to corroborate the notion that only direct access to structural holes bring benefits to firms.

Chapter 6 will sound familiar to those who are acquainted with the 2005 book in which Burt studied the impact of (direct) access to structural holes on the reputation and stability of ties. At the time he found that closure (lack of structural holes) could affect reputation positively and could decrease the probability of tie decay. Here, he extends this work by including variables measuring indirect access to structural holes and finds that closure among indirect contacts also favors stability in reputation and increases the odds that direct ties will survive over time: the probability that your connection to a contact will last over time is higher when friends of your friends know each other.

In Chapter 7, Burt endeavors to capture how the effects identified in the previous chapters are contingent on the actors’ attributes, and what this contingency teaches us about the theory. The author observes that for what he labels “outsiders” in organizations (e.g.: female or non-white managers in minority, employees in geographically peripheral units, etc.), the pattern of positive return of direct access to structural holes does not apply: those who perform well in these categories tend to be those who have closure (lack of structural holes) in their networks. Careful analysis of data leads to a more specific finding: those who perform well despite being outsiders have a high level of “hierarchy” in their network, a notion that captures how closure in the network is due to one specific actor. Imagine that your network includes John plus 9 other people, with John

being connected to every one of these 9 individuals, and suppose these 9 people do not know each other. John's connections both considerably reduce the number of structural holes in your network and place him in a crucial position within your network. Burt's finding is that if you are an outsider you will need people like John because he is the kind of contact who can introduce you to many "insiders" as well as legitimate you as an insider (i.e. if they accept John as an insider, then they might accept you).

Chapter 8 is maybe the most exciting as it presents a mix of highly original speculative considerations drawn from previous chapters and in-depth analyses of data, some of which from different settings than those used in the rest of the book. Burt brings the question of agency back to networks studies. He develops a number of arguments addressing how nodes' perceptions and behaviors interact with the structure of networks and how such interaction may account for the empirical findings presented in the previous chapters. Burt dedicates particular attention to the notion of "bent preferences", defined as "evaluations shaped by social comparison" (Burt 2010: 226). His argument is that actors with networks that are rich in structural holes differ from others in the way they perceive the competitive pressure from peers. In brief, they feel less pressure due to the lack of structurally equivalent peers. As a result, they are more inclined to bring new ideas to the table, to play the role of opinion leaders and display more emotions when proposing ideas. This would be the theoretical mechanism at play that would account for why the "local process" and "personal process" hypotheses seem to prevail over the "global process" hypothesis. Consequently, this chapter makes it very clear that integrating psycho-sociology with social networks is the next challenge in the field. It provides important support in favor of a recent movement that seeks to know more about how nodes matter, in particular with the introduction of personality traits either as an antecedent or a moderating variable of network measures (Anderson 2008; Oh et Kilduff 2008).

Why you should read it

If you are a network specialist, or want to become one, there are three reasons why you should read this book. First, it relies on an exhaustive review of literature. Ron Burt did an impressive work in absorbing and structuring state of the art research on network advantages. This book will provide you with an accurate picture of the works and authors that really matter in the field. And you will quite possibly run into several missed references that could be important to your sub-area of research.

The other reasons have more to do with the findings themselves; in particular with the fact that direct contacts matter, whereas indirect contacts do not. This has important implications. Even though Burt does not insist on this point, one implication is methodological. Burt's results legitimate data collection designs that focus only on direct ties and ignore indirect ties (in specialist words, ego-networks studies). And this considerably simplifies the process of obtaining access to data, as you only need to survey a sample of respondents and ask them who they know, rather than trying to be exhaustive in the description of every path indirectly connecting a focal actor to every other actor in the study population.

More importantly, the implications concern the next theoretical challenges in the field. Generally speaking, Burt's findings support the notion that further understanding of network advantage requires taking into account how nodes think and behave, not only what the social structure looks like. An important challenge, then, would be to understand whether such a role of agency is related to perception (actors with similar networks end up with different benefits because they are not similar in the way they assess opportunities and understand the value of their networks), motivation (they are not similar in their motivation to draw benefits from their networks) or abilities (they see opportunities, they wish to seize them, but they differ in their ability to do so). Burt seems to insist on the perception-side, probably because that is the avenue that most relates to social structure (as explained in Chapter 8, your contacts obviously have a part in shaping how you perceive them; whereas network-related motivation and abilities may lie more inherently in your mind). Yet, questions about skills and abilities appear to be particularly promising and are seldom considered in the book: how do actors differ in their ability to build and mobilize networks? How should they proceed? Surprisingly, research on networks (the relationships you have and how you benefit from them) and research on networking (what kind of behaviors lead to the building of a valuable network of relationships) have remained separate in the literature. Networking behavior has been a subject of interest to career specialists for years (e.g.: Forret et Dougherty 2004) and has only very recently emerged as a relevant topic for the social networks community (Totterdell et al. 2008; Treadway *et al.* 2010).

Another strong implication of this need to take into account behaviors concerns the structure of the field of social network studies. In a way, the story Burt tells us is about the disbanding of the network family. The community of social networks studies has been quite a cohesive entity, with scholars relying on similar measures, theories and questions, regardless of the level of analysis (individuals, teams, firms). There was a time when you could transfer Granovetter's arguments about the strength of weak ties from the context of job searching, where it was initially developed, to the context of alliance portfolio management (e.g. Rowley *et al.* 2000). Similarly, the initial formulation of the structural holes theory fitted admirably both levels of analysis. The informational advantage of structural holes, as well as the control benefits could be that of a firm managing a portfolio of alliances as well as a manager considering her relationships at work. By demonstrating that the focus has to shift from the structure of the network to its interaction with intra-nodes processes, Burt suggests that the discussion has to become theoretically specific to the level of analysis. Firms must be thought as firms, and individuals as individuals. Hence, Burt explains that those who study interpersonal networks should better integrate psycho-sociological theories (for those who study interfirm networks the author does not really suggest specific directions). All in all, Burt's findings suggest that social networks scholars should look for theoretical renewal beyond their community.

Even if you are not a network specialist and do not wish to become one, there are also three reasons why you should like the book. First you can read it as a textbook case study about theory building and learn interesting lessons. Adopting a very humble posture, Burt systematically and rigorously discusses rival explanations, and examines how these find support in the data he presents. The arguments are introduced smoothly

and every single objection that springs to mind after reading a paragraph is addressed in the following. Another lesson is that theoretical building requires persistence and focus. Since the initial formulation of the structural holes theory (Burt 1992), Ron Burt has spent his career responding to its inherent limitations. This book is just another step in the process. His aim is to determine when the initial theory works and when it does not, and to understand why and move forward in this manner, persisting in an exclusive focus on network structures. This is also probably where the reader might feel a little frustration: consistent with this focus, Ron Burt underestimates other dimensions of network advantages such as network composition and the quality of relationships (in other words, aside from whether they are connected or not, what are the attributes of those standing in your network? What is your relationship to them?). These variables have been shown to be particularly meaningful with respect to network advantages and have sometimes been identified as being more powerful factors of performance than structural holes (see Rodan et Galunic 2004 for a discussion of network composition in relation to structural holes). Some readers may be curious as to what Burt has to say in this area.

The second reason is that this book also presents a number of inspiring ideas and tips on how to use graphical representations and descriptive statistics to make your point, as well as on how to check for patterns in your data and examine rival explanations. Ron Burt has a rare ability to connect theory to data through iterative interactions. When reading the book you will come to realize that representing, analyzing and reporting on your data is not just a methodological issue: it can be a crucial part of the process of theory building. Finally, despite the above-mentioned great divide between levels of analysis (individuals, teams and firms) entailed by Burt's results, most of the theoretical arguments still apply to very distinct contexts and may be of some use for many research questions. Should you work on diversity management, decision-making, innovation, corporate governance, etc. the odds are that you will certainly find in this book stimulating ideas to approach your topic from a different angle (two examples: the empirical findings on the election of financial analysts to the "institutional investor all-America research team" in chapter 4 could be inspiring for those interested in institutionalization processes; the analysis of how the theory is contingent on gender in chapter 7 could stimulate new interpretations for glass ceiling effects). Burt obviously endeavors to convince an audience beyond the social networks community. In particular, he has an impressive ability to establish connections between "classical" theories and to show how they relate to network concepts. Would you expect a book about social networks to rely on references as varied as Weber, Veblen, Durkheim, Von Hayek, McClelland, and many others? Burt is not merely theorizing on brokerage across social groups; he is one of the brokers that are described in the book. A broker who spans structural holes across disciplines, questions, theories and levels of analysis, and who combines all this into a theory of his own.

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