Reading Summary Week 11

Structural Holes – Ch 1

**Capital: Financial, Human and Social**

An actor brings capital into an environment and takes from it profit, which is the rate of return where the capital invested. Three types of available capital include:

1. Financial Capital – monetary resources (cash, investments, etc.)
   a. property of individual or organization
   b. invested to create production capabilities
2. Human Capital – natural abilities or talents and acquired skills
   a. property of individual or organization
   b. invested to create production capabilities (investing in skills of managers, those to turn raw materials into product, etc.)
3. **Social Capital** – relationships with others (friends, colleagues and general contacts) from whom you receive opportunities
   a. owned jointly by the actors involved in the relationship, no actors has single ownership of the relationship
   b. provide the opportunity to transform the production capabilities into profit

Focus – Social Capital: relates to an actor’s network of contacts in the environment. The structure of the actor’s network and location of the contacts in the social structure of the environment enhance the actor’s competitive advantage in receiving a higher rate of return on investment. According to Burt (pg.8), social capital can be thought as “…the way in which social structure renders competition imperfect by creating entrepreneurial opportunities for certain players and not for others.”

**Two Concepts in Examining Social Capital:**

1. **“Who You Reach”** – Network provides an actor with access to people with specific resources and functions as a conduit; establishes a correlation between your resources and their resources. Relates to concepts of power and prestige.

2. **“How You Reach”** – Social structure is capital itself that is measured in terms of network range and size. The value of the “rate of return” can be boosted given the structure of the network and the location of the actor’s contacts within that structure; these benefits include:
a. Information – access (receiving information and knowing who could use it),
timing (knowing information before others know the information) and referrals
(the flow of information about you to others)

i. How does an actor get valuable information before others receive it?
Maintain a large (network size) and diverse network (network range); however, tradeoffs to increasing networks size in that it requires more time
to maintain, important to grow network to “nonredundant” contacts that
lead to people outside your current network (network range)

ii. **Structural Holes:** “the separation between nonredundant contacts.
Nonredundant contacts are connected by a structural hole. A structural
hole is a relationship of nonredundancy between two contacts. The hole is
a buffer, like an insulator in an electric circuit. As a result the hole
between them, the two contacts provide network benefits that are in some
degree additive rather than overlapping.” (Burt, pg.18)

1. Efficiency: maximize number of nonredundant contacts in the
network to maximize the yield in the structural hole
   a. Cohesion is a measure of redundancy; the more strongly
      connected the contacts are, the more likely they are to
      provide the same information.
   b. Structural equivalence is also a measure of redundancy; if
      contacts occupy a similar position within the structure they
      will link the actor the same third party contacts.

2. Effectiveness: devote resources to preserving primary contacts that
act as entryways to groups outside the immediate network as
opposed to secondary contacts who are people at the end of your
relations

b. Control – “tertius gaudens” or playing the conflicting demands of one actor off
another in order to reap the benefits of being in a brokering role, and
entrepreneurial motivation or the likelihood that actor will take an opportunity
(relates to perception of success)

Structural Autonomy

These concepts are incorporated into the concept of structural autonomy. As defined by Burt,
actors are structurally autonomous when they are “free of structural holes on their own end and
rich in structural holes at the other end. These are the players best positioned for the information and control benefits that a network can provide. (Burt, pg. 45)

Structural Holes – Ch 2

Goal: Creation of a structural autonomy model and operationalizing the argument for empirical research.

Network Data: No measure exists that can detect structural holes; rather it is assumed that the ability to take advantage of a structural hole diminishes in proportion to the strength of direct and indirect connections between actors. It is unlikely a structural hole will emerge between actors who are similarly positioned in the network (structurally equivalent) and connected by a strong relationship.

Capturing the Potential of Structural Holes in an Actor’s Network:

Redundancy – Key to Benefit is Connection: Determine the effective size or number of nonredundant contacts in a network. A contact is considered redundant to the extent that significant resources (time, etc.) are invested in a relationship with a second contact to whom the first is also connected; no additional valuable information can be expected, overlap exists as this contact is related to a contact whom the actor already has a strong tie. A ratio of the “efficiency” is taken where 1.0 indicates all contacts are nonredundant to 0 where all contacts are redundant.

Constraint – Key to Benefit is Dependence: Opportunities are constrained to the extent that a contact to whom you have a relationship and invested a significant portion of your resources (time, etc.) in that relationship, has heavily invested in a relationship with another contact you are trying to reach. The potential for entrepreneurial opportunities are constrained because you have invested resources heavily in relationships that lead back to a single contact (limiting range.) Formula derived to measure the constraint exhibited by contacts in the network; in this case the size and density of the network are utilized. Generally, density increases constraint (more connections between contacts in the network) and size decreases constraint (more contacts in the network).

Hole Signature: merges the measures of time/energy required to maintain relations and constraint characteristics of an actor’s contacts to determine patterns across the network. As Burt describes, “the pattern of these characteristics across relationship is a signature with which players can be identified, studied, and compared for their entrepreneurial opportunities. In the language of structural holes, the pattern is the hole signature.” (Burt, pg. 66)

Graphed where line captures time/energy invested and a second for the constraint, the area in between is the structural hole. Different network structures (cliques, center-periphery, leader hierarchy and leaderless hierarchy) produce unique structural holes that are consistent across structure types.
**Structural Autonomy:** pulls together multiple measures and concepts so that the opportunities and constraints measure the comparative advantage of a specific player in the environment. An actor is structurally autonomous if the actor their relationships with others are free of structural holes on their end yet rich in structural holes on the other end. An interval scale is developed to measure the extent that an actor, relative to other actors, has unconstrained access to structural holes.

**Essential Points:**

1. **Boundaries:** The boundaries around competitive environments is problematic for actors who are outside of it; these actors are unable to take advantage of benefits that arise from information and control. These actors must rely on those in the network to access the environment.
2. **Structural autonomy is a function of constraint.** The more independence an actor has (free of constraint) to pursue structural holes, the greater structural autonomy the actor enjoys.
3. **Connections with contacts that bridge a structural hole and are unconstrained by other actors in the network provide exclusive access.**

**Structural Holes – Ch 3**

**Goal:** Apply the concepts and methods to test argument; examination of economic transactions. Specifically, how are structural holes and profits distributed across markets?

**Hypothesis:** As defined by Burt he proposes that, “*producers with networks rich in structural holes can negotiate favorable terms in their transactions with suppliers and customers, and so should enjoy higher rates of return on their investments.*” (Burt, pg.82) And more precisely that, “*profit margins increase with the lack of structural holes between producers, and decrease with the lack of holes between suppliers and customers.*” (Burt, pg. 85)

**Data – Product data of American Markets available from the U.S. Commerce Department.**

**Measuring Structural Holes – “Concentration Ratio” of the proportion of total market output produced by businesses owned by the four largest firms.** If the ratio is close to 1.0 it indicates there are few structural holes, and a score of 0 would indicate many.

**Market Networks:** Basic analysis of the structure of the networks of customers, suppliers and producers reveal these networks can be characterized as large and dense with weak ties.

**Hole Effects:** The predicted importance of structural holes are confirmed by the analysis. The profit margins decrease when a lack of structural holes exist between suppliers and consumers. This finding is so significant that some producers are better to lose market share if it prevents increased organization of suppliers and customers. The more structural holes among suppliers and customers, the more profits can be expected to grow. Alternatively, the more structural holes that exist among producers, the more profits will shrink.
Essential Point: the level of constraint in transactions reduces the profit margin of producers.

**Market Hole Signatures:** Five clusters of markets are identified that each have a unique hole signature. The differences in the hole signatures depends on the level of constraint (constrained or unconstrained), type of market and degree of hierarchy. These differences indicate that profits are higher in markets with a large volume of unconstrained business. The key to these differences is the constraint in each specific market.

**Structural Holes – Ch 4**

Theory that managers get promoted faster if they have rich social holes is tested.

Study population – personnel records and a mail survey of top managers in a large tech firm

Supervision in tech firm flows through a matrix rather than a traditional bureaucracy

Employees have both formal supervisors responsible for salary recommendations and performance reviews and informal supervision. Informal supervisors work with employees on project jobs.

1. If you look back over the last 6 months, who are the 4 or 5 people with whom you discussed matters important to you?
2. Over the last 6 months, who are the 3 people you have been with most often for informal social activities such as going out to lunch, dinner, drinks, films, visiting one another’s homes, and so on?
3. If your job responsibilities include assigning work to direct report managers, in your opinion, who among them is most likely to be successful at the firm?
4. Who would you consider to be your immediate supervisor?
5. Of all the people at the firm, who are the 4 or 5 who have contributed the most to your professional development – your most valued contacts?
6. Who are the 3 or 4 people you would name as your most essential sources of buy-in for initiatives coming out of your office?
7. Of all the people you know at the firm, whom do you see as your single most important contact for continued success at the firm?
8. Who has made it the most difficult for you to carry out your job responsibilities at the firm?
9. If you were to leave the firm, who are the 2 or 3 people you would discuss and evaluate job options with?

Solid line contacts are relations of direct supervision

Dotted line contacts are relations of indirect supervision
Thin line contacts are relations of personal relevance to the manager (any contact listed by a manager that was neither a solid line or a dotted line was considered a thin line)

Network size increases with rank, particularly for women

Variable rates of return are expected by structural holes – people with rich structural holes are expected to be promoted ahead of their peers whereas people with high constraint networks are expected to be promoted slower than their peers.

Socially Expected Duration (SED) – socially prescribed or collectively patterned expectation about temporal duration (e.g. the SED of a bachelor’s degree is 4 years – a person graduating in 3 years would be ahead of their SED, whereas someone graduating in 5 years would be behind it)

SED of managers at the tech firm should be viewed relative to similarly situated managers (main office is different from field offices, Sales is different from IT).

Hole effects were most evident for managers working on social frontiers (places where 2 social worlds meet) – these include women, managers working in remote plants, field managers, newly hired managers

Constraint has a strong positive correlation with early promotion for women and fast promotion for men, however structural holes improve the chances for early promotion for men

Burt concludes that constraint delays promotion at all ranks, and that the effects cumulate

4 types of Holes

- A – Entrepreneurial Signature – high ranking engineer; younger than average person in his rank, and has been in rank half the time of other managers in his rank – cites 12 contacts. Is close to 2 contacts neither of whom are a direct or indirect supervisor
- B - Entrepreneurial Signature – one contact smaller than A and has a third close contact. The 3rd close contact is better connected and more constrained. He is younger than the average person promoted in finance and has been in his rank for the average time expected of someone of his rank
- C – Clique Signature – smaller than the entrepreneurial networks with 9 contacts, and are characterized by strong contacts between contacts. Relations are more likely to be strong. Cliques have the highest density of all 4 types (.5). This manager is an entry-rank manager in Sales. He has been in the firm for a long time and is twice as old as the average person promoted to his rank.
- D – Hierarchical Signature – Same size as cliques but much less dense. Any constraint is concentrated with a small # of contacts. This is the mid-rank MIS manager – joined firm w/in last 5 years. His immediate supervisor has an especially close relationship with
most of his contacts, but there are few strong relationships between other contacts. Constraint is concentrated with his immediate supervisor. This may also be a mid-rank manufacturing manager.

Hierarchical relationships centered around one or two individuals can be as effective as broader networks with many structural holes for advancing a career, however the choice of hierarchical relationships over structural holes is more risky should the relationship with a mentor go sour.

Institutional holes may also be important

Networks may be either flat (no actor is dramatically more central than any other) or hierarchical (built around 1 or 2 strategic partners)

The majority of managers chose a flat network and then favored an entrepreneurial approach over a clique approach. Those managers who chose the hierarchical network were evenly divided between a network centered around their boss and a network centered around someone else.

Reasons a person should not choose their boss as the critical sponsor of their career:

- Critical relation with the strategic sponsor is less at risk of going sour from inevitable disagreements that arise between people working together
- Since there is always a boss, the manager gains more control over his or her work; an external sponsor can be leveraged against the boss for negotiating advantage
- Boss may not be the most convincing sponsor since bosses are expected to sponsor their employees

Increasing the size of a network to 15 or 20 generally does not increase the non-redundant number contacts over people with 12 to 14 contacts as growing the network beyond a certain point generally only increases redundancy

**Chapter 5 – Player-Structure Duality**

Managers are not just managers. They play many roles to many people and their autonomy in each situation is relational and defined by the distribution of structural holes around the relationships that define each role.

Organizations are similarly disaggregated into structural units. They do not enter analyses as entire entities, but rather as role player. A firm’s structural autonomy in each of its markets is defined by the distribution of the structural holes around the transactions defining each market.

**Chapter 6 – Commit and Survive**
The control benefits of structural autonomy are both an opportunity and an assurance. Autonomous actors are more secure in their positions and are freer to explore alternative ways of performing relationships.

Spending a long time in certain roles is a result of competitive failure. Spending more than the SED in a role indicates repeated failure in competitions to move ahead/be promoted. Should be correlated with a lack of structural holes in a network.

Commit hypothesis – players with little structural autonomy conform more closely with the behavior characteristics of their location in the social structure.

(corollary) Survival hypothesis – higher rates of change, new players replacing old, will occur where there is little structural autonomy because there is little room for error.

The more constrained role should show (at a micro level):

- Less varied styles of performing the role
- Shorter durations of time in the role; and at a macro level
- Less varied organization behavior
- Higher mortality rates

When producers are in a strong position to bargain with customers (inelastic demand) they can survive if they deviate from the market’s schedule and would be considered highly structurally autonomous.

Producers who are in a weak position to bargain with customers (elastic demand), they cannot survive if they deviate from customer expectations. These producers have low structural autonomy.

The regression lines showing net income vs. volume of sales is very similar for low and high autonomy markets are very similar, however there is much higher correlation for low autonomy markets (.972) than high autonomy markets (.638).

Theory also tested using population ecology. Structural autonomy is treated as a covariate in the survival model with respect to population ecology. The effect of structural autonomy is expected to be negative (i.e. lower the mortality rates of organizations in high-autonomy markets).

Chapter 7 – Strategic Embedding and Institutional Residue

Organization’s role in the labor market is seen as either a mechanism facilitating underlying exchange or an entity in its own right defining exchange.

Power may be withdrawn from a constraint either by withdrawing from a contact in favor of his competitor or withdrawing from a contact’s cluster in favor of another cluster.
Another technique to navigate around an absent structural hole is to expand network boundaries to include a contact or a cluster which competes with the constraint.

A third strategy is to manage the constraint by embedding it in a second relationship over which you have more control.

Strategy hypothesis – there is an incentive for strategic action in constraint relations and a disincentive in opportunity relations.

**Burt – Brokerage, Chap 5**

Network models of brokerage and closure predict the distribution of social capital advantage in a network.

In brokerage, information is more homogeneous within than between groups, so bridging holes between groups have a vision advantage in detecting and developing good ideas.

The effects of social capital are substantial and concentrated in extreme network conditions.

Brokerage and closure together define a network concept of social capital, structural autonomy, in which advantage is greatest when closure within the group occurs with brokerage beyond the group.

The influence of brokerage and closure are complementary; they augment each other in creating social capital and provide the cure for the ways the other one fails. Unrestrained brokerage can create chaos whereas closure brings people into alignment. Closure can also lead to groupthink whereas brokerage promotes selection and synthesis among conflicting alternatives.

Bridging structural holes is most beneficial for the first person who bridges the hole. There is a sharp decline in both cost and returns for each successive person who bridges the hole until the equilibrium point is reached and a hole no longer exists.

While brokerage advantages are theoretically temporary, they may become enduring if the equilibrium is slowed or repeatedly disrupted, or if bridges are not absorbed into the social structure around the hole.

A structural hole is active if:

- It provides opportunities for insiders on one side of the hole to exploit outsiders on the other side;
- It permits insiders to hoard opportunities from outsiders;
- It makes it easier for insiders to construct new organization based on existing models in which insiders are advantaged; or
• Daily routines and valued social ties of aid, influence, and information gathering have adapted to the hole.

• **Social Capital in the Creation Human Capital (Coleman)**

  - We have two intellectual streams in the description of social action: sociologists consider action in social context. Economists say that action is to maximize utility.
  - Aim of author is to import the economists’ principle rational action for use in the analysis of social system. The concept of social capital is a tool to aid in this.
  - In theory of rational action each actor has control over certain resources and interests in certain resources and events. Social capital is a particular kind of resource.
  - Example: in a merchant community, the “frequency of interaction” and “ethnic and family ties” can build a strong social capital.
  - Physical capital includes tools, machines, equipment. (tangible)
  - Human capital includes skills, knowledge, capabilities. (tangible and intangible)
  - Social capital exists in the relations among persons. (intangible)
  - 3 forms of social capital are “obligations and expectations”, “information flow capabilities”, and “norms”.
  - If A does something for B and trusts B to reciprocate in the future: this is expectation in A and obligation in B. trustworthiness of the social environment is necessary which means that obligation will be repaid.
  - Acquisition of information is costly and information channels are a form of social capital.
  - Norms accompanied by sanctions can constitute powerful form of social capital.
  - Closure of social networks can facilitate social capital. Lack of closure may result in that norms do not come into existence. The consequence of closure is a set of effective sanctions that can monitor and guide behavior of actors.
  - Multiplex relations can facilitate social capital more than simplex relations.
  - Social capital has effects on the creation of human capital in the next generation. Social capital within the family (strong relations between child and parents) gives the child access to the adult’s human capital.

• **Personality Correlates of Structural Holes (Burt & Jannotta)**
- Structural hole theory describes how social capital is a function of the brokerage opportunities in a network.
- Discontinuities between exchange relations (structural holes) are entrepreneurial opportunities to broker the flow of information between people on opposite sides of the structural hole, and control the form of projects that bring together people on opposite sides of the structural hole.
- The content of the personality items associated with network structure is consistent with the structural hole argument. The argument is that people who broker connections across structural holes can add value through the information and control benefits that reside in the holes.
- The personality distinctions associated with network structure are multiple, but of a theme: Respondents in the least constrained networks claim the personality items of independent outsiders (versus conforming and obedient insiders), in search of authority (versus security), thriving on advocacy and change (versus stability).
- Personality and network structure are more associated in the lower ranks of an organization.

**Social Networks and Status Attainment (Lin)**
- Status attainment can be understood as a process by which individuals mobilize and invest resources for returns in socioeconomic standings.
- Even accounting for both the direct and indirect effects of ascribed status (parental status), achieved status (education and prior occupational status) remained the most important factor accounting for the ultimate attained status.
- The pyramidal structure suggests advantages for positions nearer to the top, both in terms of number of occupants (fewer) and accessibility to positions (more).
- Research has provided consistent support to the proposition that social capital, in the form of social resources, makes a significant contribution to status attainment beyond personal resources. This association persists across societies (different nation-states and political economies), industrialization and development levels, populations in the labor market (recent graduates, new hires, job changers), different sectors in the economy
(industries, organizations, positions in organizations), or status outcomes (occupation, authority, sector, promotion, bonuses).

- An alternative route of theorizing the network effect on social capital shifts the focus from the strength of ties to extensity of ties. There is persistent evidence that extensity or size of network ties is significantly related to richness or diversity in social resources.
- Inequality of social capital: It is conceivable that social groups (gender, race) have different access to social capital because of their advantaged or disadvantaged structural positions and social networks.

- **Bowling Alone: America’s Declining Social Capital** (Putnam)
  - Many students of the new democracies that have emerged over the past decade and a half have emphasized the importance of a strong and active civil society to the consolidation of democracy. The United States has played a central role in systematic studies of the links between democracy and civil society.
  - A wide range of empirical evidence indicates that the quality of public life and the performance of social institutions (and not only in America) are indeed powerfully influenced by norms and networks of civic engagement.
  - Perhaps the long litany of political tragedies and scandals since the 1960s (assassinations, Vietnam, Watergate, Iran gate, and so on) has triggered an understandable disgust for politics and government among Americans, and that in turn has motivated their withdrawal.
  - Religious affiliation is by far the most common associational membership among Americans but the pattern is a significant drop in reported weekly churchgoing.
  - Labor unions provided one of the most common organizational affiliations among American workers. Yet union membership has been falling for nearly four decades, with the steepest decline occurring between 1975 and 1985.
  - The parent-teacher association (PTA) has been an especially important form of civic engagement in twentieth-century America but participation in parent-teacher organizations has dropped drastically over the last generation.
  - A serious counterargument: Perhaps the traditional forms of civic organization whose decay we have been tracing have been replaced by vibrant new organizations.
Across the 35 countries in this survey, social trust and civic engagement are strongly correlated; the greater the density of associational membership in a society, the more trusting its citizens. Trust and engagement are two facets of the same underlying factor—social capital.

America still ranks relatively high by cross-national standards on both these dimensions of social capital. Even in the 1990s, after several decades' erosion, Americans are more trusting and more engaged than people in most other countries of the world.

Technological trends are radically "privatizing" or "individualizing" our use of leisure time and thus disrupting many opportunities for social-capital formation.