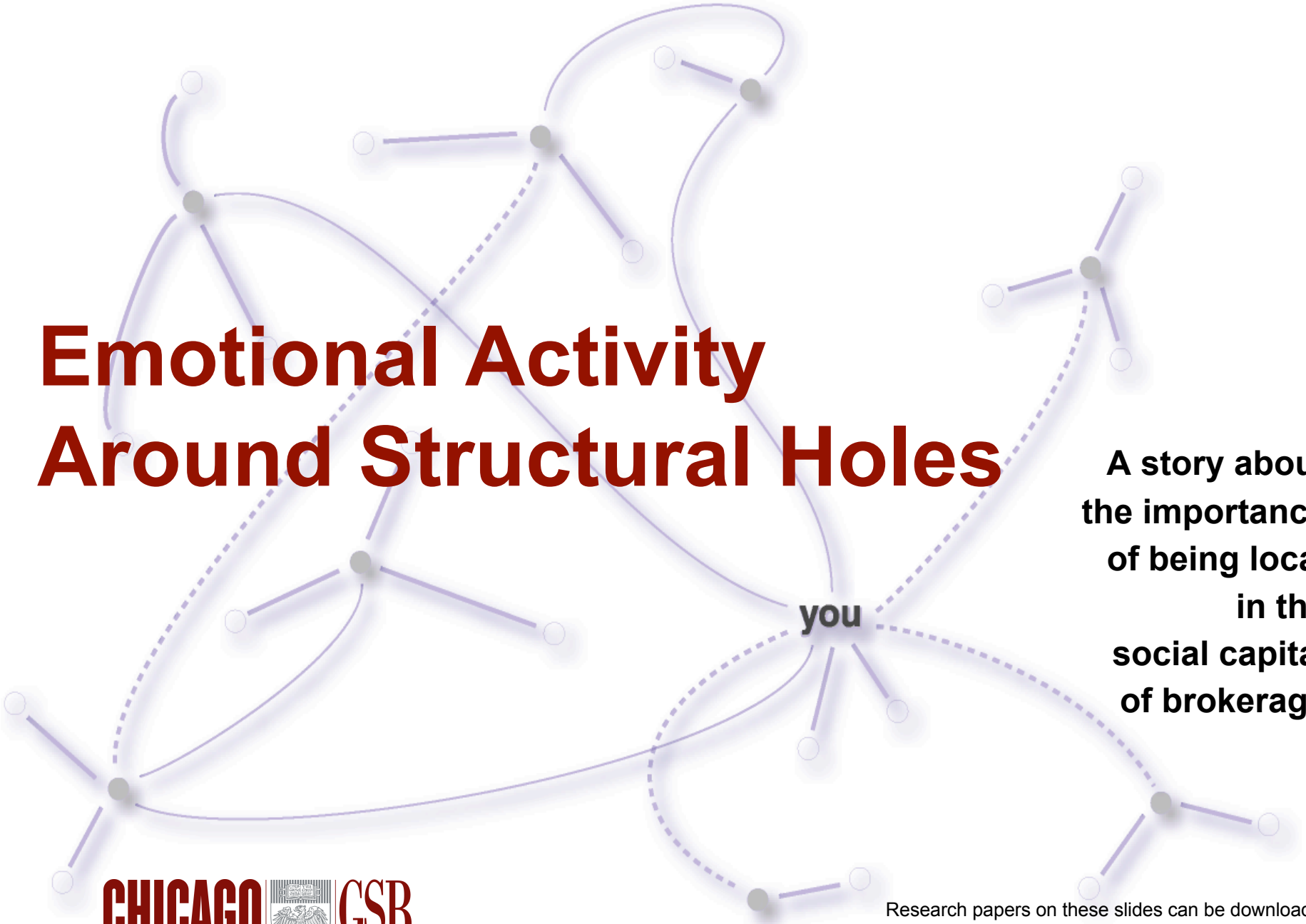
Emotional Activity Around Structural Holes



A story about the importance of being local in the social capital of brokerage

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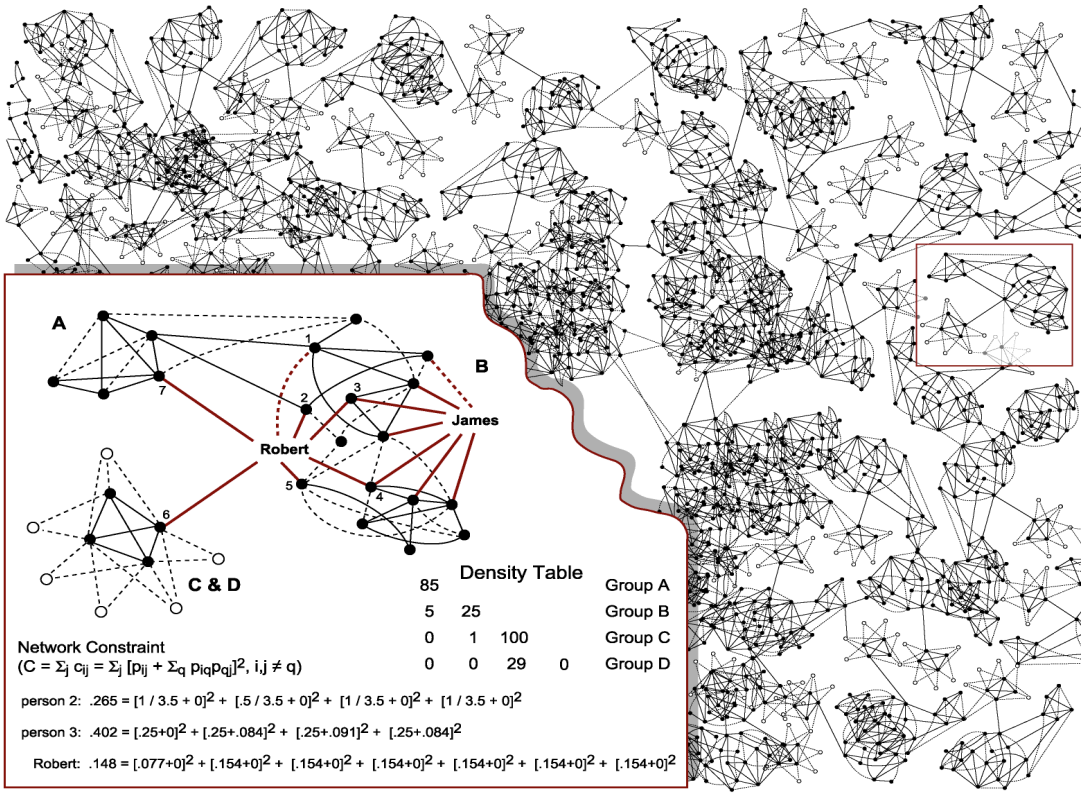
Research papers on these slides can be downloaded from the author's research website (begin at http://gsb.uchicago.edu/fac/ronald.burt).

A growing body of research documents the returns to network brokerage. People whose social networks span the structural holes between groups are, relative to peers, at higher risk of good ideas and more likely to enjoy positive job evaluations, high compensation, and fast promotions. With belief and practice more homogeneous within than between groups, people whose networks span the structural holes between groups are exposed to heterogeneous belief and practice. Such peopl — the “connectors” or “brokers” in a network — have a social capital advantage through information arbitrage to identify and develop rewarding opportunities.

While we know quite a bit about the association between achievement and networks rich in structural holes, we know little about the emotions that accompany, facilitate, or inhibit the association. The image of a neutral third party serving as “honest broker” between groups implies that emotion could inhibit brokerage. There is tension where conflicting ideas and understandings meet. Emotional neutrality could be an advantage in coordinating inconsistent understandings between groups. On the other hand, emotions could facilitate brokerage in that emotion is the substance of appeals to friends in separate groups, appeals to identity shared by the groups, or appeals to past events that brought people together from the groups. More, there is evidence that positive emotions are associated with creative problem solving and successful appeals to people scattered across groups. In other words, positive emotions have creativity and performance correlates similar to the documented returns to network brokerage. How are returns to network brokerage enabled by, or perhaps due to, emotions?

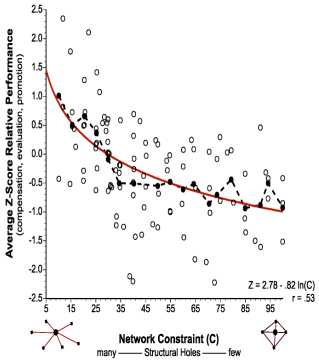
Using data on the informal discussion relations between managers in a large company, and software established in psychology for inferring emotion from text, I analyze the words managers use to describe their best idea for improving the value of their work. I find six associations with network structure: (1) Brokers — the managers whose networks span structural holes — use more words. (2) Brokers are more likely to use emotional words. (3) The words brokers use are neither more positive, nor more negative, but both. Brokers are more likely to invoke positive and negative emotions in describing their ideas. (4) Brokers are not being evasive or ambiguous so much as they are using a wide emotional aperture in pitching their ideas. Individual sentences are homogeneously positive or negative. The brokers are different for their tendency to include sentences that are positive along with sentences that are negative. (5) There is sequence to the emotions. Though network brokerage remains the primary predictor of perceived value, introducing an idea with positive emotions increases the likelihood of an idea being perceived as valuable. Perceived value is uncorrelated with positive emotions expressed after the first sentence. (6) Negative emotions seem to be irrelevant. They have no association with perceived value, directly or in combination with positive emotion.

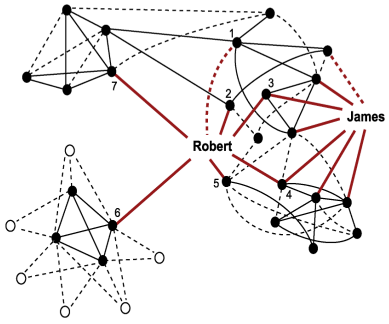
In sum, the results reported here are consistent with past research describing the returns to network brokerage, but extend that work to describe a role for emotions in successful brokerage. At the same time, the results are consistent with emotion research in psychology. That work is extended in linking emotion to network brokerage and its association with performance.

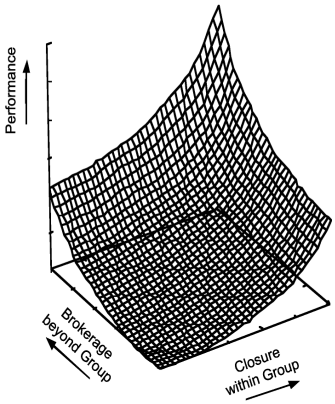


The Small World of Organizations and Markets

See Brokerage and Closure, Figure 1.1, for further discussion.







Strategic Integration across groups

Brokerage's vision mechanism brings behavior and opinion variation into a group via close contacts in diverse other groups,

which creates breadth, timing, and arbitrage advantages for insiders selecting and synthesizing among alternatives to detect and develop rewarding projects.

Mechanism (Fact 2, Figure 2.3), Performance (Fact 1, Figure 1.8)

Failure Mode: ORGANIZATION CHAOS (inefficiency, confusion, agency problems)

Tight Integration within group

Closure's reputation mechanism drives behavior and opinion variation out of a group via obligation and identity exclusive to the group,

which creates alignment, labor, and trust advantages for insiders working together reliably and efficiently. BANDWIDTH: redundant channels keep insiders exposed to stories about reputation-relevant behavior and opinion (bad behavior will be detected). ECHO: redundant channels keep insiders exposed to etiquette-biased stories about reputation-relevant behavior and opinion.

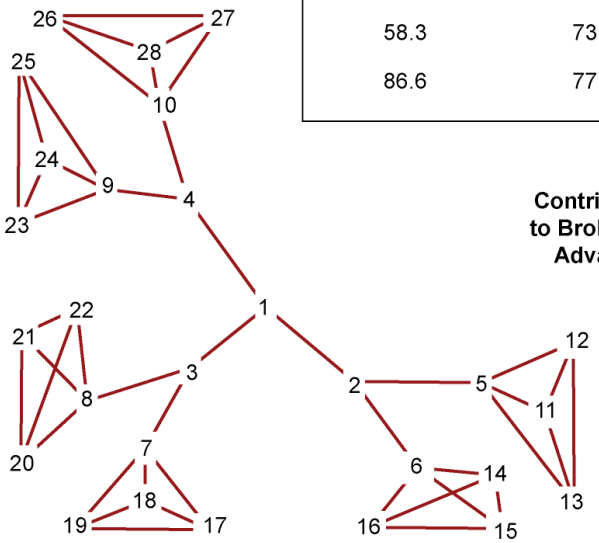
Mechanism (Fact 4, Figure 4.8), Performance (Fact 3, Figure 3.5)

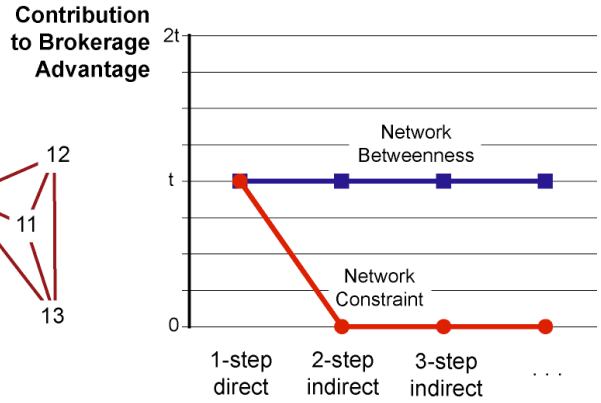
Failure Mode: ORGANIZATION ARTHRITIS (groupthink, agentic state, isolation)

Instantaneous Social-Capital Effects

See Brokerage and Closure, Figure 5.1, for further discussion.

Direct Network Constraint	Indirect Network Constraint	Role in Network
33.3	33.3	Broker of Brokers (# 1)
33.3	50.0	Broker (# 2, 3, 4)
58.3	73.3	Group Leader (# 5 to 10)
86.6	77.2	Group Member (# 11 to 28)

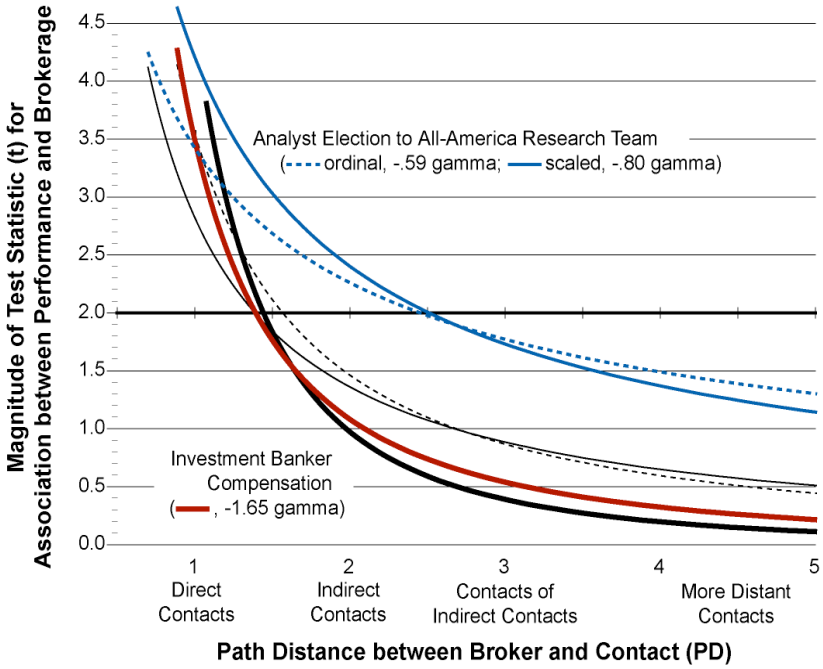




Is a Broker of Brokers More Advantaged than a Broker?

$P = a + BX + b_1C + b_2C_2 + b_3C_3 + \ldots$

See "Second-hand brokerage," Figure 3, for further discussion.



$t = a(PD^{\gamma})$

For example,

the bankers in Table 2 show:

t = 3.46 for direct,

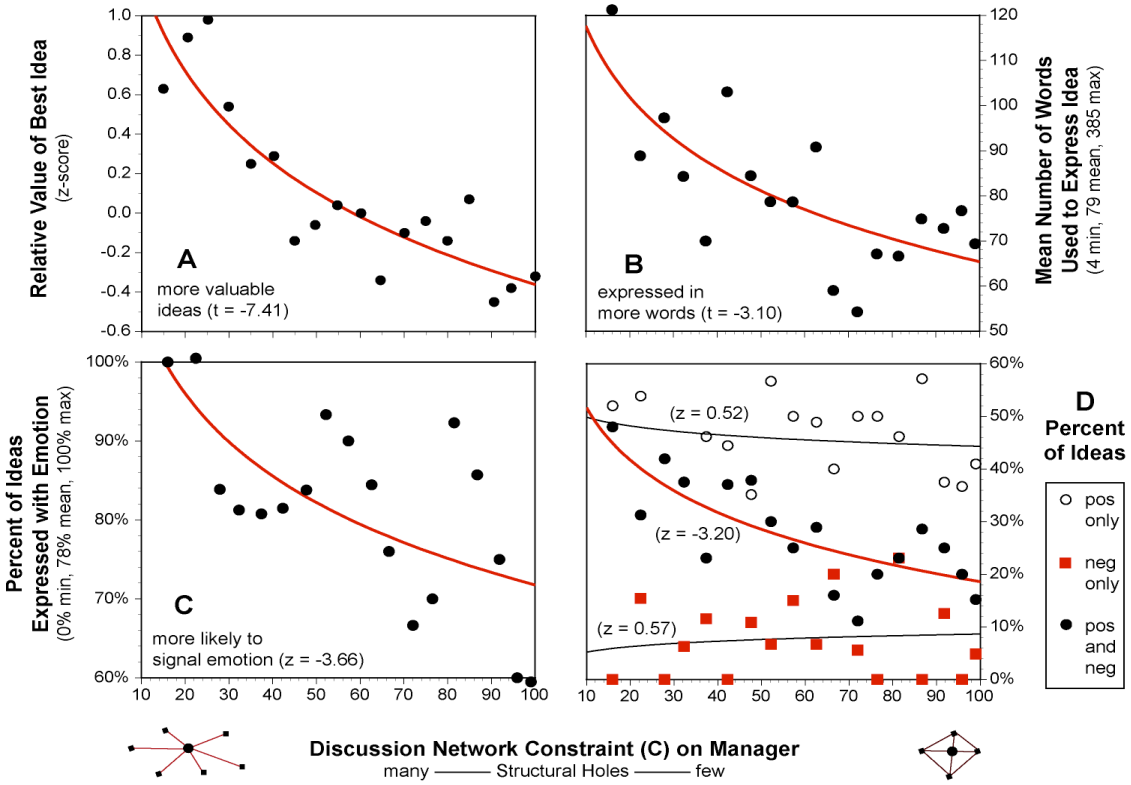
t = 1.10 for indirect,

which implies a value of -1.65 for gamma.

Manager Salary (----, -1.25 gamma), Evaluation, and (——, -1.03 gamma), Idea Quality (▬, -2.15 gamma)

Gamma Curves for Three Study Populations

See "Second-hand brokerage," Figure 9, for further discussion.



Brokerage, Ideas, and Emotions

Scores pooled for 5-point intervals on horizontal axis. See "Emotional activity around structural holes," Figure 2, for further discussion.

Table 4. Predicting Idea Value

	A	B	C	D
Intercept	4.053	.923	3.757	3.573
Uses positive words	—	.307 (.155) *	.235 (.154)	—
in first sentence	—	—	—	.403 (.122) **
in later sentence	—	—	—	.010 (.133)
Uses negative words	—	-.255 (.247)	-.307 (.243)	—
in first sentence	—	—	—	-.376 (.264)
in later sentence	—	—	—	-.093 (.220)
Uses positive & negative	—	.216 (.286)	.237 (.281)	.080 (.250)
Network Constraint	-.657 (.152) **	—	-.630 (.153) **	-.619 (.152) **
Job Rank	.126 (.063) *	.253 (.056) **	.129 (.062) *	.153 (.063) *
Age	.001 (.008)	.003 (.008)	.003 (.008)	.004 (.008)
Minority	.116 (.127)	.037 (.130)	.067 (.128)	.090 (.128)
Education	.140 (.082)	.133 (.083)	.144 (.082)	.121 (.082)
Hightech Organization	.106 (.136)	.083 (.139)	.110 (.136)	.119 (.136)
Lowtech Organization	.374 (.229)	.365 (.232)	.360 (.228)	.337 (.227)
Regional HQ	-.065 (.187)	-.031 (.190)	-.066 (.187)	-.153 (.187)
Corporate HQ	.037 (.169)	.015 (.171)	.044 (.169)	.026 (.168)
Length of Idea	-.0001 (.0002)	-.0001 (.0002)	-.0002 (.0002)	-.0001 (.0002)
Sequential Order	-.0000 (.0005)	-.0002 (.0005)	-.0001 (.0005)	-.0002 (.0005)

NOTE — These are ordinary least-squares estimates predicting the value (1 to 5) of a manager's best idea, for the 455 supply-chain managers (respective squared multiple correlations of .14, .12, .16, and .17). Network constraint is the log of constraint. Standard errors are given in parentheses (* $p < .05$, ** $p \leq .001$).