Deeply Connected: The Science of Personal Relationships and Networks

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April 27, 2009
1. Initiating Relationships

2. Relationship Development

3. Network Vision

Online Relationships & Networks

Social Networks & Health

Social Contextual Theory
Acknowledgements…

Jason Laramie

Lee Eggert

Karen Barnes

Meghan Desmul

Daena Goldsmith

April Trees

Lisa Riveland

Jerry Herting

Charlotte Stan

Colin Lingle

John Crowley

Mara Adelman
Central Assumptions …

- Relationships exist in and are enacted through communication.
- Relationships do not exist in isolation from one another.
- Social context exists in and is enacted through relationships among relationships.
- Relationships among relationships can be mapped as communication networks.
Central Proposition of Social Contextual Theory (SCT)…

The dynamics of any given social relationship are intertwined with the structure and behavior of the participants’ surrounding social networks.

- Influence flows both ways— from network to dyad, from dyad to network.
- Can be seen across the entire lifecycle of relationships: from their initiation, to their end, and beyond.
SCT: Social networks and the initiation of personal relationships...

- Why do particular people meet?
- Why do some meetings initiate relationships, while others do not?
Why do we the people we meet?

Kamadeva – Hindu god whose flower tipped flowers induce love.
Why do we meet?
Physical Proximity…

Problems: legacy findings not so good, not a powerful predictor.
Homogamy

Similarities in ethnicity, religion, education, etc. (layered)

Problems: Actual similarities weakening as predictors as cultures diversify
Social contextual theory brings two new factors into play ...

**Social proximity effects** – *(sample propositions)*

- The shorter the network distance between any 2 people, the more likely they are to meet.

- The stronger the tie between any 2 people, the more likely their otherwise unconnected contacts will be to meet.

- The greater the number of linkages between members of their respective networks, the more likely any 2 people are to meet.
Let’s consider what might happen when social proximity principles operate over time. To help track, let’s pick out two people: Sylvia and Bill.
SCT: Social Proximity Effects ...

Time 1
SCT: Social Proximity Effects ...

Time 2
SCT: Social Proximity Effects ...
SCT: Social Proximity Effects...

Time 4
SCT: Social Proximity Effects ...

Time 5
SCT: Social Proximity Effects ...

Time 6
SCT: Social Proximity Effects ...

... and I call this is the story of how Sylvia met Bill.
• Nearly half (46%) of married and cohabitating couples reported that they had one or more friends in common before they met first the first time (Kalmijn & Flap, 2001, Netherlands, N = 1519).

• Two-thirds (66.3%) of same-sex friends and romantic couples had met at least one member of their partner’s close network before meeting partner for first time (Parks, 2007, U.S., N = 478 friends / N = 380 romantic couples).
Bill and Sylvia were carried toward each other as the structure of the network surrounding them changed. (passive effect)

In other cases, network members are much more actively involved in the initiation of interpersonal relationships. (active – third party effects)
**Third party effects:**

Surveyed young adults about their experience “helping” and “being helped” in romantic relationships during the previous year. *(N = 437, Parks, 2007).*

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Examples</th>
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| Attraction Manipulations | • Said good things about one potential partner to the other.  
                             • Told one or both persons how interested the other was in him or her.                                                               |
| Direct Initiations     | • Introduced them to one another for the first time.  
                             • Arranged for both persons to be in the same place at the same time so that they would meet.                                      |
| Direct Assists         | • “Coached” one person on how to approach or what to say to the other.  
                             • Asked one person questions that the other requested, then relayed answers back.                                                 |
Third party effects:

Assistance from network members is common…

• 53% had given help in previous 12 months. Help given to an average of 3 couples.

• 64% of those who had started a new romantic relationship in past 12 months had received third party help. Help received from an average of two people.
Third party effects:

Prospective partners “work the network” -- seeking help of network members…

• In 45% of cases, the helper had been asked for assistance directly by one or both recipients. (64% got “hints”).

• In 80% of cases, at least one recipient was aware of the network member’s efforts.

Third party help works -- those receiving it dated more actively than those who did not.
SCT: Social Network Factors in the Further Development or Deterioration of Relationships.
# Primary Data Sets

<table>
<thead>
<tr>
<th>Relationship Type</th>
<th>Age Group</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>Adolescent (98% - 14-18 yrs)</td>
<td></td>
</tr>
<tr>
<td>Same-sex Friendship</td>
<td>n = 204</td>
<td>N = 478</td>
</tr>
<tr>
<td></td>
<td>n = 274</td>
<td></td>
</tr>
<tr>
<td>Opposite-Sex Romantic</td>
<td>n = 135</td>
<td>N = 612</td>
</tr>
<tr>
<td></td>
<td>n = 245</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n = 232</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>N = 339</td>
<td>N = 1090</td>
</tr>
<tr>
<td></td>
<td>N = 751</td>
<td></td>
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</tbody>
</table>
Primary Analyses

Confirmatory Factor Analyses
Using AMOS.

Multiple models

Correlated errors allowed when justified.

Criteria:
• All predicted links, p < .05
• All indicators load > .50
• RFI’s > .95
• RMSEA’s < .04
General Model of Relationship & Network Linkages  \( (N = 858) \)
Model Generalizes Across Relationships

Same-Sex Friendships

Heterosexual Romantic Friendships
Model Generalizes Across Genders

- Same-Sex Male Friendships
- Same-Sex Female Friendships
Age Group Differences...

Adolescent Relationships

Young Adult Relationships
Richer Characterizations of Relationship & Network Factors Predicted by SCT \( (N = 232) \)
Two Explanatory Principles…

Relational Sense-Making

- Network members as sources of information, interpretation
- Expectations about contact, support.
- Social comparison

Network Structuring

- Opportunities for contact
- Regulation of access and contact
- Access to resources
- Access to alternative partners
SCT: “Network Vision”

Florian Henckel von Donnersmarck’s 2006 movie: *The Lives of Others*
SCT: “Network Vision”

• Do we know who our friends’ friends are?

• How accurate is our knowledge of others’ social contacts?

• What factors influence the accuracy of our “network vision”? 
To address these questions…

- \( N = 162 \) pairs of acquaintances, friends, and close friends (\( M \) age = 19.6 yrs, 68% female)
- Completed scales measuring relationship development.
- Listed up to 10 close friends.
- Indicated which close friends knew each other and how well.
- Predicted who their partner would list as close friends.

- Worked with partner to determine accuracy of predictions.
- Worked with partner to estimate contacts among one person’s friends and the other person’s friends.
How accurately can we guess our friends’ friends?

- Overall accuracy was only moderate. \( M = 42.26\% \)
- Accuracy was highly variable. \( SD = 27.28, Kurtosis = -0.98 \)
“Why is “network vision” important?

• Serves a protective function against spread of disease

• Makes it easier to influence others (Krackhardt, 1990)

• Allows more effective, faster access to resources, to social support (Killworth et al, 2006).

• May help reduce prejudice toward outgroups (Wright et al, 1997; Paolini et al, 2004)

• May enhance our sense of belonging & community (Parks, 2007)

• Can be personally transforming (as it was for Stasi Captain Gerd Wiesler in The Loves of Others)
Accounting for “Network Vision”

Previous attempts to account for differences in accuracy have focused on:

- **Centrality**: Those who are connected to more people themselves are more accurate about others.
- **Power**: Those in formal positions of power are more accurate (inconsistent findings)
- **Personality**: Needs for achievement & affiliation, extraversion. (weak, inconsistent findings)
A micro-network approach…

Some additional things to consider:

- **Gender.**
- **Strength of relationship between A and B.**
- **Duration of relationship between A and B.**
- **Size of B’s network.**
- **Frequency B’s communicates with network members.**
- **Density of B’s network.**
- **Cross-network density.** Linkages between A’s friends and B’s friends. (related to centrality in prev. studies)
A closer look at network characteristics...

Density: Contacts within each person’s friend network.

Cross-Network Density: Contacts between A’s friends and B’s friends.
Preliminary Findings: What doesn’t predict accuracy…

• Gender – either of the subject or the other person.

• How long the subject and other have known each other

• How long the other person has known his/her close friends (average)

• How close the other person is to his/her friends (average)

• How frequently the other person sees his/her friends (average)

• How densely interconnected the other person’s friends are.

• How many close friends the subject and other have in common.
Preliminary Findings: What does predict accuracy...

Cross-Network Density: $\beta = .41, p < .0001$

Overall Relationship Development: $\beta = .29, p < .0001$

Size of Other’s Network: $\beta = -.14, p < .001$

Accuracy: $R^2 = .44, p < 0001$

Correlations: $r = .09, r = .02, r = .47$
“Network Vision” – Future Directions

With these data…

• Move beyond preliminary analysis
• Examine systematic predictor errors
• Determine if some friends are more accurately predicted.
• Determine if some aspects of AB relationship are associated more strongly with accuracy

More generally…

• Improve strategies for capturing info on “unbound” network structures.
• Identify additional individual and structural predictors of accuracy.
• Link variations in accuracy with outcomes.
In sum, social contextual theory...

- Provides new explanations for relationship initiation.
- Helps account for the development and deterioration of personal relationships.
- May have implications for our understanding of attitude change, perceptions of social belonging, and for strategies for reducing disease and enhancing health.
Social contextual theory also provides a more general perspective on social life.

- For appreciating our connection to seemingly distant social events and problems.
- For more fully appreciating the magnitude and persistence of our influence on others.
Thank you