Problematic Personality and (Anti)Social Networks: Why a Few Impact the Many

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OUTLINE

- Brief CV
- Example: Adolescent Antisocial Networks
- Teaching and Possible Collaborations
Developmental Perspective

- **My First Year**: Friendships & personality
- **RADAR**: Social, biological & problematic development
- **Online vs. Offline**: social relationships & personality
- **ECRP**: Social and economic networks, problem behavior & personality
- **FORMAS, PSP**: Ethnicity, networks, personality, biological development
Key publications


Example: Personality, Violence and Networks
Violent crimes

- Adolescence: minor crimes increase tenfold
- Only a small minority engages in violent crimes
- Moffitt: life-course persistent vs. adolescent-limited
The case of immigrant harassment

- Exception: Kuhn, et al., 2004; Van Zalk, et al., 2013
- Adolescent peer groups harass immigrants
- Friends engage in similar levels of harassment
Networks

- Connections or associations between nodes
- *e.g.*, collaborations between companies, interactions between hormones, bird interactions, friendship or peer networks
- Peer networks: Crucial functions during adolescence
ECRP: Social Influence in Dynamic Networks

- Six EU countries: longitudinal development networks
- Friends tend to be similar in attitudes, feelings, cognitions, behaviours, problems…
- Why similarity between friends?
Similarity (homophily)
Selection: (time 0)

A

B

C

D
Selection: (time 0 + 1)
Influence: (time 0)
Influence: \( \text{time } 0 + 1 \)
The case of immigrant harassment

- Selection vs. Influence
- Homogenous processes?
- What about propensity to engage in harassment: personality differences?
Antisocial behaviour

<table>
<thead>
<tr>
<th>Year</th>
<th>Violent crimes</th>
<th>Imm harass</th>
<th>Peer harass</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
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<td></td>
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<tr>
<td>15</td>
<td></td>
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<td></td>
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<tr>
<td>18</td>
<td></td>
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</tr>
</tbody>
</table>

Graph showing trends in antisocial behaviour over years.
Psychopathic traits

Psychopathic Personality Syndrome

Affective

Behavioural

Interpersonal
Manipulative-dominant traits

- High involvement in racist peer networks
- Manipulate and dominate others to take risks and engage in violence
- Leadership positions influencing peers (e.g., Kimonis, et al., 2004; Van Zalk, et al., 2011, 2012a, 2012b, 2013)
Network processes

Why Homophily?

1. Selection

2. Influence

3. Moderation by manipulative-dominant traits
Network-Person interactions

- Crime propensity: psychopathic traits
- How do they influence other adolescents?
- Peer networks
How to study?

Design:

➡ Community design ($N = 4,621$)

➡ Only non-immigrants ($N = 3,922$)

➡ Five annual longitudinal measurements

➡ Multiple informers: peers, parents, teachers, police reports
How to study?

Simulation Investigation for Empirical Network Analysis:

➡ Longitudinal Network Modelling

➡ Selection & influence

➡ Personality-network interactions
### Results: Selection

<table>
<thead>
<tr>
<th>Similarity Category</th>
<th>Odds Ratio</th>
<th>s.e.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar gender</td>
<td>8.86 ***</td>
<td>0.93</td>
</tr>
<tr>
<td>Similar age</td>
<td>2.32 ***</td>
<td>0.54</td>
</tr>
<tr>
<td>Similar ethnicity</td>
<td>1.98 ***</td>
<td>0.21</td>
</tr>
<tr>
<td>Similar neighbourhood</td>
<td>4.32 ***</td>
<td>0.32</td>
</tr>
<tr>
<td>Similar peer harass</td>
<td>3.92 ***</td>
<td>0.21</td>
</tr>
<tr>
<td>Similar imm harass</td>
<td>1.92 ***</td>
<td>0.56</td>
</tr>
</tbody>
</table>

*** $p < .0001$
Adolescent social networks

‣ Adolescence: substantial social, emotional, biological, and behavioural changes

‣ ECRP project: network approach to understanding antisocial behaviour

‣ Community network approach

‣ Birds of a feather flock together

> 1 harassment

No harassment

- No harassment

- > 1 harassment
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![Diagram showing network of individuals with different harassment levels.]

- Yellow: No harassment
- Purple: > 1 harassment
Adolescent social networks

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- No harassment
- > 1 harassment
## Results: Influence

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>s.e.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear shape</td>
<td>-1.23 ***</td>
<td>0.02</td>
</tr>
<tr>
<td>Quadratic shape</td>
<td>0.32 ***</td>
<td>0.21</td>
</tr>
<tr>
<td>Parents’ prejudice</td>
<td>2.34***</td>
<td>0.15</td>
</tr>
<tr>
<td>Gender (0 = girls, 1 = boys)</td>
<td>5.32 ***</td>
<td>0.21</td>
</tr>
<tr>
<td>Neighbourhood</td>
<td>-1.45 ***</td>
<td>0.11</td>
</tr>
<tr>
<td>Peers’ imm harass</td>
<td>4.21 ***</td>
<td>0.08</td>
</tr>
<tr>
<td>Peers imm harass *</td>
<td>3.65 ***</td>
<td>0.21</td>
</tr>
</tbody>
</table>

*** $p < .0001$
Results: Increases in imm harass

Odds Ratio: Increase in imm harass

Peers’ psychopathic traits
- High
- Medium
- Low

Peers’ imm harass
Adolescent social networks

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< 1 harassment
No harassment
> 1 harassment
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- > 1 harassment
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...
Conclusions

- **Simultaneous** network processes: Selection feeds back into influence

- **Problematic personality**: Manipulative-dominant traits enhance peer influence
Conclusions & Future directions

- Individual development influenced by interactions between networks and persons (e.g., personality, attitudes, behaviours, cognitions)

- Network studies provide unique insight into these interactions

➡ Mechanisms & processes in networks?

➡ Multilevel: social, personality, and physiological?
Conclusions & Future directions

- Individual development influenced by interactions between networks and persons (e.g., personality, attitudes, behaviors, cognitions).
- Network studies provide unique insight into these processes.

➡

- Mechanisms & processes in networks?

LEVEL 3: Social Relationship processes

- Antisocial friendships, relationship with parents deteriorate

LEVEL 2: Personality traits

- Psychopathic personality syndrome

LEVEL 1: Physiological processes

- Hormonal imbalances
- Microprocesses 2: Cognitive and emotional deficits
- Microprocesses 1: Manipulative communication
Plans for Münster

- Problematic development: extend beyond adolescence; longitudinal community, experimental interventions targeting antisocial behavior
- Intercultural communication and contact: CONNECT, MOPED, online vs. offline project
- Personality and social relationships: Professor Back’s group
- Interdisciplinary projects: network approaches
Teaching

› Developmental/Clinical Psychology: Personality, Social Relationships, Mental Health

› Basic Statistics: SPSS, R

› Structural Equation Modeling: AMOS, Mplus

› Network Analysis: SIENA, ERGM
Future & Collaboration

Applied Statistics Basics, person-oriented, variable-centered

Development of Statistics: Network Analysis, cross- and interdisciplinary

Development: Personality, Social relations, Problems, Interethnic
Developmental Psychology

• Possibilities for Collaboration

1. Relationship interaction and communication: intercultural perspectives (e.g., Kärtner)

2. Study of prosocial vs. antisocial behavioral development (e.g., Nass); Sexual violence (e.g., Muck)

3. Individual, family-focused, peer-focused and societal interventions targeted at antisocial kids and adolescents (e.g., Kärtner, Schiller, Nass)
Statistical methodology

• Possibilities for Collaboration

1. Multilevel network processes: cellular > individual > group (e.g., Holling, Doebler)

2. Brain networks, bioactivity > social networks? (e.g., Doebler, Kuhn, & Holling)

3. Longitudinal mediation models: bridging continuous with discrete time-modelling approaches
Cognitive and Neuropsychology

• Possibilities for Collaboration

1. Biological correlates and determinants of problematic traits in youth: Roles of cortisol, testosterone, dopamine and reactivity? (e.g., Otto Creutzfeldt Center; Schubotz, Trempler)

2. Interplay of neural hormonal, behavior and social processes in real-life social contexts
Social/Organizational Psychology

• Possibilities for Collaboration

1. Social influence: longitudinal network approach (e.g., Echterhoff, Kopietz, Hertel, Thielsch)

2. Online and offline communication processes within relationships and groups (e.g., Echterhoff, Kopietz, Hertel, Thielsch; ”Trust and Communication in a Digitized World”)

3. Group processes: combining with individual and dyad levels
Clinical Psychology

• Possibilities for Collaboration

1. Developmental psychopathology, Dark Traits (e.g., Buhlmann, Back)

2. Dysfunctional self-concept and behavioral development (e.g., Buhlmann, Back)
Planned workshop: MSC, PhD, Post-doc

• FOR WHOM: For various levels: MSC, PhD, Post-doc

• CONTENT: Theory and application of SEM, longitudinal analysis, network analysis

• WHEN: This term and this fall

• TIMEFRAME? 4 to 5 days: one block or split-up
Thank you!

▸ Questions?
Tolerance toward immigrants

- Cognitive, emotional, and political components
- Sweden: long history of high tolerance
- Latest elections: Sverigedemokraterna (SD) 9.67% and 12.87%
- Voters mostly outside of urban areas, less contact with immigrants
Tolerance toward immigrants

- Contact Theory (Allport, 1954): contact is a necessary condition to improve tolerance
- Intergroup Friendships
- Empathy, knowledge, anxiety reduction
Extended contact

Extended Contact Theory (Wright, et al., 1997): indirect contact is a necessary condition to improve tolerance

Knowledge, signals positive ingroup-outgroup norms, anxiety reduction
Example longitudinal SEM

Combination person-oriented with variable centered approach
Aims

1. To what extent do direct and extended contact predict tolerance development...

2. ...and to what extent does tolerance predict direct and extent contact development?
Sample

- Political Socialisation Project (2010-present; $N = 5,021$)
- Community design: independent reports
- Four cohorts: 13, 16, 20, and 23 year-olds
- Followed up to 4 years
- Only non-immigrants ($N = 3,815$)
Strategy of Analysis

‣ Accelerated Longitudinal Growth Modelling

‣ Use age as indicator for starting levels (Intercepts) and changes (Slopes)

‣ For tolerance, direct contact, and extended contact
Tolerance toward immigrants
Tolerance toward immigrants

[Graph showing a trend over time with lines for different years from 2013 to 2023]
Direct contact
Extended contact
13 – 18 years

Itol  Stol

19 – 24 years

Itol  Stol
13 – 18 years

- Itol
- Stol
- Idir
- Sdir
- Iext
- Sext

19 – 24 years

- Itol
- Stol
- Idir
- Sdir
- Iext
- Sext

Significance levels: *p < 0.05, **p < 0.01, ***p < 0.001
13 – 18 years

ltol → Stol

Idir → Sdir

Iext → Sext

Sdir → Iext

Sext → Iext

19 – 24 years

ltol → Stol

Idir → Sdir

Iext → Sext

Sdir → Iext

Sext → Iext

@0
Conclusions

- Tolerance increases slightly: cultural norms
- Contact decreases rapidly: ethnic homophily, segregation
- Contact only boosts tolerance for adolescents
- Extended contact enhances direct contact, which, in turn, increases tolerance
Conclusions & Future directions

- Individual development influenced by interactions between networks and persons (e.g., personality, attitudes, behaviours, cognitions)

- Network studies provide unique insight into these interactions

  ➡ Mechanisms & processes in networks?

  ➡ Multilevel: social, personality, and physiological?
Context: Diversity

Graph showing the comparison between Low Diversity and Medium to High Diversity over the years from 2013 to 2018.
Diversity and contact

- Extended contact from a network perspective
- Young adults: fewer opportunities for contact
- Interventions: promote contexts in low diversity
Strategy of Analysis: ages 13-18
Strategy of Analysis: ages 19-24

Intercept (I2) → Slope (S2)
13-18 year-olds

Itol

Stol

Idir

Sdir

Idive

Sdive

.14*

.26*

.20*

.74***

- .76***

.74***

-.45***

.74***

.86***
## Results: 13 to 18 year-olds

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Means</strong></td>
<td></td>
</tr>
<tr>
<td>Intercept tolerance</td>
<td><strong>2.819</strong>*</td>
</tr>
<tr>
<td>Intercept direct contact</td>
<td>0.715***</td>
</tr>
<tr>
<td>Intercept extended contact</td>
<td><strong>3.602</strong>*</td>
</tr>
<tr>
<td><strong>Slope</strong></td>
<td></td>
</tr>
<tr>
<td>Slope tolerance</td>
<td><strong>0.014</strong>*</td>
</tr>
<tr>
<td>Slope direct contact</td>
<td><strong>-0.046</strong>*</td>
</tr>
<tr>
<td>Slope extended contact</td>
<td><strong>-0.263</strong>*</td>
</tr>
</tbody>
</table>
Results: 13 to 18 year-olds

<table>
<thead>
<tr>
<th>Variances</th>
<th>Unstandardized coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept tolerance</td>
<td>0.228***</td>
</tr>
<tr>
<td>Intercept direct contact</td>
<td>0.004*</td>
</tr>
<tr>
<td>Intercept extended contact</td>
<td>0.231***</td>
</tr>
<tr>
<td>Slope tolerance</td>
<td>0.012*</td>
</tr>
<tr>
<td>Slope direct contact</td>
<td>0.022*</td>
</tr>
<tr>
<td>Slope extended contact</td>
<td>0.098***</td>
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</table>