Nodes and anchor points in crime pattern theory

Christophe Vandeviver &
dr. Stijn Van Daele
Journey-to-crime

Three components (Rengert, 1992; 2004)

• Starting Point

• Direction

• Distance
Existing journey-to-crime research

Distance

• A lot of studies
• Most ‘journey-to-crime’ research is in fact ‘distance-to-crime’ research

Direction

• A dozen of studies
• For a long time underresearched, gained attention more recently

Starting point

• Assumption: registered residence of the offender
Starting point of the crime trip

Assumption: registered residence
• Of particular interest (e.g. geographic profiling)
• Availability (e.g. in police data)

VS.

Importance of other ‘nodes’
• Awareness space (Brantingham & Brantingham, 1981, 1993)
  • Work, shopping, leisure
• Wiles & Costello (2000)
  • Friends’ places
• Bernasco (2010)
  • Former residences
Present research

Experiment

- Asked to imagine being a burglar and select a suitable target
- 63 participants (mainly students)
- 3 groups: street, online and online w/photo
- 1 week

- Feedback interview – mapping of:
  - Target location
  - Residence(s)
  - Three other most frequently visited locations
Research questions

Influence of other nodes on target distance

• Are targets closer to another node than to the (official) residence?
  • cf. police data
• Which nodes?
• What does it say about assumption ‘home = anchor point’?

Influence of virtual reconnaissance on target distance

• Targets closer by if target selection on street vs. online?
• Other nodes?
• Different if photograph is required (real visit)?
Findings: official residences vs. other nodes

% of participants for which a particular node is closest to target

- Official address: 49% (N=31)
- Actual address: 14% (N=9)
- Acquaintances: 16% (N=10)
- Leisure: 11% (N=7)
- Professional: 10% (N=6)

Nodes and anchor points in crime pattern theory
Findings: official residences vs. other nodes (2)

Official home address may be the correct anchor point to assess JTC distances for about half of the cases

- Principle of “domocentricity” (cf. Literature on geoprofiling) makes sense...
- … at least to some extent

May not be correct for the other half

- Particularly if ‘official’ distance is large (83% > 5km, 89% > 10km)
Findings: online vs. street selection

Average distance to nearest node (incl. residences) per group

Mean distance in km
F=4.868; df=2; p=0.011
Findings: online vs. street selection (2)

Online target selection does not result in larger distances when photograph is required (‘real visit’)
• Makes sense: efforts increase, profits remain same
• But ... burglar also has to visit target to commit burglary

Online target selection may extend people’s awareness space ... But ... search space is narrowed down (cf. photo group)!
Limitations

Student population
• Specificity (2 residences: week vs. weekend)
• No (verified) burglars

Small sample
• Validity?

Planned burglaries (assignment)
Conclusion

Home-target distances may be appropriate in many cases ...

... but study of other nodes has large added value

• Certainly if offenders appear to travel far

• Data availability (i.e. residence) should not be our only concern
Contact
Christophe Vandeviver
t.  +32 9 264 97 16
f.  +32 9 264 69 71
Christophe.Vandeviver@UGent.be

dr. Stijn Van Daele
t.  +32 9 264 97 03
f.  +32 9 264 69 71
Stijn.VanDaele@UGent.be

IRCP
Ghent University
Universiteitstraat 4
B – 9000 Ghent