

Delinquent Social Networks

CHRIS BAERVELDT

The study of delinquent social groups at the beginning of the twentieth century preceded, and still inspires, the current research on delinquent social networks. At the beginning of the twentieth century, influential social psychologists, such as Muzafer Sherif, defined social groups as social units consisting of two or more individuals who share some essential characteristics, interact with each other, and define themselves to be in the same group. They supposed that social groups had a status order, and that group members had common motives and norms and fulfilled typical roles. Social groups were by definition supposed to have clear boundaries: people were in the group or outside it.

The social network approach views the world as a world of relationships between units. Units can be persons, groups, organizations, and countries, but also railway stations, computers, and financial sources. Relationships (ties) can be friendships, competition, common projects, and migration, but also railways, information, and money flow. When studying delinquent social networks, the units are usually individuals (but could also be groups or organizations), whereas the ties can vary from friendships, trust, and social support to competition, information, or money flow.

In contrast to group theory, the network approach does not presuppose that network members have common motives or norms, although some researchers might study them empirically. Whereas network researchers study power differences or interdependencies, they usually do not suppose or expect a strict status order. The roles of group members seemed to be incompatible with a network approach, and were, until recently, ignored. Most network researchers in the second half of the twentieth century were structuralists: they believed that the structure of the network predicted the most significant

outcomes, such as network development and individual or collective behavior. Finally, whereas group theory supposes that groups have clear boundaries, network researchers accept that the boundary of a network is often arbitrary.

Social network research has a history of more than a century. The oldest studies concerned student networks at schools. This is true for Jacob Moreno's famous 1934 study, "Who shall survive," until recently described as the start of social network research. However, John Almack (1922) preceded him with a school network study. The oldest network study, on one classroom network, was probably conducted in 1880–1881 by Johannes Delitsch (Heidler et al., 2014).

Network studies were rare until the 1980s. Until then, most research was carried out by a relatively small number of scientists in the United States. Their work included the development and statistical grounding of social network measures (Wasserman and Faust, 1994), but also a variety of empirical studies. The number of publications per year rose from less than 30 in the 1980s to more than 500 in 2000. Also, classroom networks grew in popularity. Maureen Hallinan (1979) started to study classroom networks systematically for effects of gender and ethnicity on friendship selection. Whereas the network tradition was primarily interested in network structure and its effects, researchers from other fields, such as education, management, youth, ethnicity, and communication, started to use a network approach for the study of behavior.

The quantitative study of delinquent networks probably started in Europe, and was initially unknown or ignored in the United States. The Swede Jerzy Sarnecki (1990) was probably the first researcher who explicitly combined network techniques and the study of delinquency on a large scale. In the early 1980s, he started to investigate all relationships of co-offending between delinquent youth in Swedish communities. The networks that he studied included relationships between thousands of delinquents and were, for his time, huge and difficult to analyze. Sarnecki's work was directed primarily at Swedish crime policy and not at the international scientific

community. Until the 2000s, his work was not well known outside Sweden.

At the end of the 1980s, Baerveldt and Snijders (1994) started a different approach: they combined Hallinan's design of school networks with self-report delinquency data. Students who were friends appeared to have more similar levels of delinquency than students who were not friends of each other. The combination of complete networks and self-reported delinquency became popular in the second half of the 1990s. Many projects were not limited to delinquent behavior, and also included multiple forms of student behavior. A well-known example is the extensive Add Health project in the United States (Resnick et al., 1997).

By studying complete networks instead of delinquent groups, the focus shifted from delinquent networks to delinquency in networks. The main question was why friends had more similar levels of delinquency than non-friends. Most authors pointed at two causal mechanisms: selection or influence. Students befriend each other more often when they have similar levels of delinquency (selection) or their delinquency levels grow more similar when they are already friends (influence). The influence mechanism is in line with etiological theories supposing that the causes of delinquent behavior have to be sought in the social environment. Influence would then be a logical outcome of, for instance, social learning. Social influence is a less logical outcome, however, when delinquency is supposed to be caused by individual deficiencies, such as genetic errors, psychological problems or disorders, learning problems, or a lack of social abilities. It seems more logical then to explain the similarity effect as an effect of selection.

In other fields researchers also found associations between friendship and the similarity of behavior. Accordingly, in the 1990s and 2000s, appropriate longitudinal network statistics and accompanying software, such as SIENA (Snijders, Van de Bunt, and Steglich 2010), were developed. The number of longitudinal network studies plummeted in the 2000s. So far, there is no general answer to the question of what processes lead to similarity in (delinquent) behavior between friends. Sometimes, selection processes seem dominant and sometimes influence processes

in explaining these similarities. It is, for technical reasons, even questionable whether the probability of both causal mechanisms can be tested directly against each other. However, the existence of the processes can be (and is) thoroughly tested against a null hypothesis, taking into account numerous confounding mechanisms on all aggregate levels.

Although many studies since the 1990s have been focused on delinquency in networks such as classrooms or neighborhoods, the study of delinquent groups still continued. Since the rise of the Chicago school in the 1920s and 1930s, there has been a constant stream of, usually qualitative, studies on delinquent groups, in particular local youth groups and gangs. Nowadays, network methods play a definite role in such studies. Network analysis has corrected classical views of delinquent youth groups. For instance, many groups do not have a strong core, but appear to consist of relatively loosely connected clusters. Also, the density of most groups is often low, which contradicts the idea of intimate subcultures. Moreover, different groups may, according to, for example, social identity theory, compete with each other, but they also often appear to have positive connections. However, network analysis did not replace classical research methods. Network methods are usually applied in addition to classical anthropological methods (e.g., Papachristos, 2006). Network methods alone usually are not sufficient for the understanding of these groups. As an example, the centrality of a male group member in the communication network of the group is easily interpreted incorrectly without additional data regarding his role. He could be an informal leader of the group, but also an errand boy. Also, the classical dyadic-centered network approach is blind to collective phenomena that are deemed important in criminological theory, such as group rituals and the self-definition of the group.

Are delinquent networks comparable to organizations or markets? The answer depends strongly on the objectives of the network members. In many gangs, delinquency serves expressive objectives, such as the development of cultural identity in adolescence. Delinquency is then a by-product of the network rather than a goal.

There is no compelling reason why such a network would have a certain structure (such as a strong center) or a strong hierarchy. Also, when network members leave the network, the network would usually still function for the other members. However, when the network members aim for an income from delinquency, there are reasons to expect certain network structures. Complex delinquency, such as bank robbery or kidnapping of important persons, asks for mutual trust, specialist knowledge, and minute planning. Therefore, it can be expected that the (temporary) networks involved are dense, and often centralized. While these networks are comparable to commercial organization networks, other types of delinquency can ask for completely different networks. A delinquent network producing income from theft or burglary would include people who give information about possible gains and risks, people who actually steal or break in, people who transport the goods, and people who sell them. The shape of such a network would sooner be a chain than a network with a strong center. When network members drop out, this would have an immediate effect on the production of the network. A network approach can also add significantly to ecological studies of delinquent networks. Relationships between the network and the environment, such as neighborhood, social care, and the police, can be studied on the group/organization level, but there is also a dyadic level where group members and policemen actually meet.

There is growing public interest in research on the role of networks in prevention (see, e.g., Valente, 2012). There are ample reasons to study the effects of the network structure on the success of interventions. For example, networks with loose ties and several cliques are perhaps easier to break up than centralized strong-tie networks. This example adds to a significant question in crime prevention, namely whether an intervention should be (visibly) directed at the whole delinquent network (collective approach) or at separate members of the network (individual approach). The relationships between “the group” and intervening organizations, but also the quality and history of individual ties between network members and representatives of the organizations, are

likely to impact the effects of such interventions.

SEE ALSO: Comprehensive Gang Models; Delinquency; Gang, The; General Theories of Crime and Delinquency; Peer Group, The; Social Learning Theory

References

- Almack, J. C. (1922). The influence of intelligence on the selection of associates. *School and Society*, 16: 529–530.
- Baerveldt, C., and Snijders T. A. B. (1994). Influences on and from the segmentation of networks: hypotheses and tests. *Social Networks*, 16: 213–232.
- Hallinan, M. T. (1979). Structural effects on children's friendships and cliques. *Social Psychology Quarterly*, 42: 43–54.
- Heidler, R., Gamper, M., Herz, A., and Eszer, F. (2014). Relationship patterns in the 19th century. The friendship network in a German boys' school class from 1880 to 1881 revisited. *Social Networks*, 37: 1–13.
- Papachristos, A. V. (2006). Social network analysis and gang research. Theory and methods. In J. F. Short, Jr., and L. A. Hughes (Eds.), *Studying youth gangs* (pp. 99–116). Lanham, MD: AltaMira Press.
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., ... Udry, J. R. (1997). Protecting adolescents from harm: findings from the National Longitudinal Study on Adolescent Health. *JAMA*, 278: 823–832.
- Sarnecki, J. (1990). Delinquent networks in Sweden. *Journal of Quantitative Criminology*, 6: 31–50.
- Snijders, T. A. B., Van de Bunt, G. G., and Steglich, C. E. G. (2010). Introduction to stochastic actor-based models for network dynamics. *Social Networks*, 32: 44–60.
- Valente, T. W. (2012). Network interventions. *Science*, 337: 49–53.
- Wasserman, S., and Faust, K. (1994). *Social network analysis. Methods and applications*. Cambridge: Cambridge University Press.

Further Reading

The references here are chosen primarily for historical reasons. The best known and influential studies appear in handbooks. A good recent handbook is:

- Scott, J., and Carrington, P. J. (Eds.). (2011). *The SAGE handbook of social network analysis*. Thousand Oaks, CA: Sage.

There are also many good criminological handbooks. It is advantageous to read one with a good description of the work of the Chicago school. An example is:

Shoham, S. G., Knepper, P., and Kett, M. (Eds.). (2010). *International handbook of criminology*. Boca Raton, FL: CRC Press.

For other useful references, see:

Knoke, D., and Yang, S. (2008). *Social network analysis* (2nd ed.). Thousand Oaks, CA: Sage.

McGloin, J. M., and Kirk, D. S. (2010). An overview of social network analysis. *Journal of Criminal Justice Education*, 21: 69–181.