Resilience of a corrupt police network: the first and second Jokes in Queensland

Key Words: police corruption, social network analysis, resilience

Introduction

Resilience is an important concept in the study of organised crime groups. If a group is resilient it will survive for an indefinite period of time and potentially prosper. One form of organised crime is the operation of corrupt police networks. These networks, like any other crime network, must contain resilient characteristics if they are to continue operation and avoid being closed down through detection and arrest of their members. This paper examines the resilience of a large corrupt police network, namely *The Joke* which operated in the Australian state of Queensland for a number of decades. The paper acknowledges that a network that can survive for such a long period of time is by definition resilient, and attempts to determine what it resilient characteristics were. This paper also assumes that these characteristics will be different to those of mainstream organised crime groups because the police network operates within an established policing agency rather than as an independent entity hiding within the broader community.

A police corruption network is a dark network whose social elements occur through information relations, social sanctions and an acculturation process. A dark network is one where the network achievements come at the cost of other individuals, groups or societies and, in addition, their activities are both 'covert and illegal' (Raab & Milward, 2003, p. 415). Public officials who place their own interests before those of the public have corrupted a system in which they are supposed to act as agents of the public will (Lauchs, 2007) and undermine the good governance of a society. Around the world there have been numerous attempts to shut down corrupt police behaviour and their associated operating networks. Australians have witnessed several Commissions of Inquiry aimed at identifying and eradicating corrupt police networks (Fitzgerald, 1989; Kennedy, 2004; Wood, 1997). The

reports of these inquiries discuss the history of events, the nature of police culture and the administrative actions which allow corruption to occur. They do not analyse the nature of the corruption networks, nor how these networks survive for decades. This paper will address the latter issue by looking at the resilience of one corrupt police network in Queensland which survived, with only a brief interruption, for over 30 years.

We are interested in the ways in which the Queensland police corruption network re-grouped and re-structured itself to resume its operations within the formal police organisation. To this end, this paper will draw on historical official documentation and network analysis to interrogate the function, operation and structures of *the Joke,* over its two phases. This exercise will allow us to determine if the resilience criteria identified for broader dark networks also applies to police corruption networks.

The paper proceeds with a review of the literature on corrupt police and their dark networks and raises the issue of resilience, pulling out key criteria attributed to dark networks. Social Network Analysis is then introduced as a tool for unpacking and analysing the structural, relational and functional positions of dark networks and their members. This section is followed by an outline of the Queensland case context and an explanation of the study methodology. The findings are then presented and discussed, from which the conclusions and implications of the paper are drawn.

Corrupt Police Networks and Their Resilience

A corrupt police network is simply one form of a social network, which form when people interact. Networks are a type of social organisation that rely on relationships of trust, mutuality and reciprocity, coupled with a set of common norms established and maintained

through peer pressure, social approval and sanction (stigma), to bind individuals to a collective unit. However, networks can also have a dark side, where the network achievements come at the cost of other individuals, groups or societies, or are simply illicit (Raab & Milward, 2003, p. 415). Networks can be exclusive by nature. Dark networks are exclusive by necessity. They are dark because they are unseen and wish to remain that way. As Granovetter (1992, p. 45) points out "networks can create their own norms at odds with the outside world to the point where they become a 'law unto themselves". In such a context, illegal activities can take on the aura of normality and members protect each other from the sanctions of the outside world.

Police corruption can readily be described as a dark network for several reasons. First, they rely on the informal relationships that arise from membership of the police force rather than the official hierarchy of the Force or its operational systems. A corrupt network must operate by stealth within the organisation but not as part of the Weberian objective and faceless, chain of command or the auditable operations of the Force. The corrupt network is built *ad hoc* based on close and clandestine relationships. Second, the corrupt officers rely on their guise as the Force and their relationships to, and positions within, the formal hierarchy and system to provide resources, opportunity and power to exploit those outside the system. For example, a corrupt officer can travel within the criminal world as a police officer and use his police powers as coercive tools and the agency's resources to support his corrupt activities. Third, police culture is known for rules of silence, solidarity, cynicism and exclusivity (Chan, 1999; Punch, 2009). The survival of the dark network relies in part on its connection to the police subculture of silence that privileges loyalty over integrity. We will return to this point below.

Social Network Analysis Tools

Network analysis is an empirical tool which can be used to identify, measure, visualise (map) and analyse the ties between people, groups and organisations (Scott, 1991, p. 113). It plots relationships between individuals or entities by representing them as nodes and showing their relationships by linking nodes with lines. Lines can have different depictions to indicate characteristics of links including frequency and method of contact. The nodes and lines form a network map that reveals relationships between members of the network such as gate keeping (controlling the network), liaisons and core and periphery members' (Sparrow, 1991). In doing so, it uncovers the often hidden or opaque patterns of interaction and enables the underlying structure of relationships to become more apparent (Cross, Borgatti, & Parker, 2002).

Network metrics, mathematical calculations or measures, make it possible to gain deeper insights into the actual texture and operation of the networks. Social network analysis can be used to examine a network's resilience by analysing vulnerability through identifying central nodes, the availability of alternate nodes to take the place of lost central nodes, and less-central but bridging nodes tying together remote sections of the network (Keast & Brown, 2005). Measures such as density (the level of connectivity) and centrality (the level of concentration) also provide important insights into the structural properties of dark networks.

Density is a measure of the number of actual connections compared to the total number of possible connections. The higher the density ratio - the higher the level of cohesion within a network. Density values range from 0 to 1: the closer the score to 1 the higher the level of connection. A ceramic network will have a high density because all actors will have contact with the other actors.

Centrality measures how concentrated a network is; high concentration indicates that a small number of people control the flow of resources. The centralisation score is expressed as a percentage and can vary for 0 (every member is connected to every other member) to 100 (all members are connected to only one member). A high centralisation score indicates that some network actors have many more connections than others. We have hypothesised that both versions of the Joke will have low centrality as they lack a central core.

Average Path Distance is an indication of how quick it is to navigate around the network. This measure provides insights into how close or removed certain actors are and as a consequence their level of knowledge   Average path distance is presented as the mean of the degree between every pair of actors in a network, and is an indication of how many people information must pass through until it is disseminated throughout the entire network. We have hypothesised that the average path length of both Joke networks will be low, reflecting the speed with which information can be shared about possible threats.

Closeness is a measure of the proximity that an actor has to all other actors in the network, and is related to the flow of information within a network. Scores range from 0 (actor is not close to anyone, and therefore not part of the network) and 100 (actor is adjacent to every other actor in the network). Those actors central to the network (with the shortest paths to all other actors) will have the highest closeness value, while those on the outer fringes will have the lowest. We hypothesise the Joke networks will have high closeness mean scores with low standard deviation, which would indicate the network is small and well connected without a central core. The individual closeness scores will indicate those actors closest to the centre of the network.

Betweenness determines the shortest path distance between every pair of actors in a network, and then measures the degree to which an actor appears on those paths. Betweenness values indicate how important the actor is to the flow of information within a network, and can also indicate the influence wielded by them. Actors that control information within a network will have much higher betweenness values than those who appear on the fringes. We have hypothesised that a small number of actors will have betweenness scores many times higher than the mean for both Joke networks, and that a high standard deviation will reflect the disparity in influence and control of the networks.

A BRIEF HISTORY OF THE JOKE

By the 1950s officers of the Queensland Licensing Branch (QLB) within the Queensland Police Force (QPF) had established The Joke, a successful and ongoing network protection of illegal gambling in return for monthly payments. They took bribes from illegal bookmakers, prostitutes and operators of illegal gambling games. Senior police were paid, in turn, by the QLB for protection from any potential investigations into The Joke. The history of The Joke can be broken into three stages: the First Joke, the Whitrod period, when an honest police commissioner (Ray Whitrod) forced it closure, and the Second Joke, when it was re-established after Whitrod's resignation.

Under the first Joke, individual QLB officers took bribes from Starting Price bookmakers (SP Bookies) in return for a guarantee of warnings of raids (Herbert & Gilling, 2004, p. 55). The officers passed the payments to a person known as the 'Organiser', who then distributed the money to QLB Joke members and participating senior officers (Fitzgerald, 1989, p. 32; Herbert & Gilling, 2004, p. 52). The key actors in the First Joke were Frank Bischof, the

Police Commissioner and protector of the QLB; Tony Murphy, a police officer who facilitated relationships and built the size of Joke membership; and Jack Herbert, a QLB officer who inherited the job of Organiser from an unknown number of predecessors (Fitzgerald, 1989, p. 31; Herbert & Gilling, 2004). Herbert was also responsible for initiating new members to the Joke (Herbert & Gilling, 2004, p. 52). When Bischof retired he was replaced by another member of the Joke, Norwin Bauer. The Joke members' wives also participated in graft (Fitzgerald, 1989, p. 33).

The network made two key political alliances. First with the Queensland Police Union of Employees (QPUE), which frustrated anti-corruption investigations and policies by defending members against allegations of corruption and obfuscating the actions of those who tried to bring change to the Police Force (Herbert & Gilling, 2004, pp. 53-54). Second, the Premier of Queensland, Johannes Bjelke-Petersen, opposed change in the QPF in return for the public support of the QPUE and police officers for his hard-line law and order policies (Fitzgerald, 1989, pp. 34-35).

The First Joke survived intact and was only halted by changed circumstances rather than exposure. While there were suspicions of corruption amongst police and political figures, there was only one serious attempt at an investigation, the National Hotel Inquiry, which did not find any corrupt activity. Political machinations saw an honest officer and non-Queenslander, Ray Whitrod, appointed Police Commissioner. He tried to clean up and modernise the Queensland Police Force. He did not uncover a network of corruption but his own, and other key appointments, made it impossible for the Joke to continue without being exposed (Fitzgerald, 1989, p. 36) Joke (Herbert & Gilling, 2004, p. 74). The members of the Joke dispersed and it operations closed down. Bauer and Herbert retired, and Murphy was

transferred. The Joke couldn't continue without a senior officer involved (Fitzgerald, 1989, p. 43).

Whitrod's righteous reforms where opposed by the QPUE and their ally the Premier. A colleague of Murphy's, Terry Lewis, made a connection with the Premier and subverted Whitrod and his supporters with false documents linking them to the Labor opposition. After years of having his initiatives undermined or ignored, Whitrod finally resigned when the Premier promoted Lewis to Deputy Commissioner over the heads of dozens of more senior men. Lewis, a former member of the First Joke, was now Police Commissioner.

The Second Joke began soon after his departure. SP bookmakers, illegal gaming operators and prostitution operators approached Herbert about re-establishing the Joke with his contacts still inside the QLB. Herbert became the broker and reintroduced the bribers to the QLB and Lewis. He also brought in new clients from the inline gaming machine operators. Lewis, meanwhile, also accumulated favours amongst political heavy weights. Once again, QLB members were paid to protect the bribers and Lewis and other senior police, including a fast-tracked Tony Murphy, were paid to protect the QLB. This arrangement was more extensive and profitable than the First Joke and it attracted the attention of Opposition members and the media. After some courageous media reporting and television exposes, there was a public demand for action on corruption in the police force. These events coincided with the Premier's absence overseas and his honest deputy, Bill Gunn, established a Commission of Inquiry into the allegations of corruption amongst both the police, and, a separate corruption ring between politicians and developers. Early in the investigation, Herbert turned whistleblower in return for protection from prosecution. His evidence led to a cascade of admissions by other officers and the Joke was over.

Resilience of The Joke

Networks by their very nature can be vulnerable entities. Nonetheless, networks can build resilience into their processes and structures to protect themselves against change. Resilience is the capacity to survive environmental change and direct attack. In the case of an organised crime group it refers to the ability of that group to continue its operations through a changing market and the direct interference of both competitors and policing agencies.

The most common adaption by criminal networks is to reduce their visibility either through reduced size or looser structures (Bouchard, 2007, pp. 329-330). What is clear is that criminal networks suffer unique vulnerabilities, namely, visibility attracts unwanted attention, especially from law enforcement. Visibility may not be a weakness in itself but it increases that likelihood of investigation. Visibility can occur in two ways: a large, formal network will be more visible to outsiders than a small, loose network; and, a central node (a person with many connections in the network) will be more visible than a node with less centrality because he will be associated with a greater range of activity. Not all networks have a centre of gravity, or *core*, which retains authority over the *periphery* of the network and directs its operations (Klerks, 2001; Morselli & Petit, 2007, p. 112).

Milward and Raab (2003) point out that a dark network must follow certain steps to establish the network. First, they must find enough people for the network; a task usually met by finding members in the same proximal group; in the case of the Joke, from within the Licensing Branch and the personal friendship within the agency and their criminal targets. Second, they must train their members. This was relatively easy for the Joke as the process was very simple: most individuals had a single task – collect, pay or warn. Third, there must

be an external driver – a demand – for the creation of the network; in this case the ability to carry out illicit activity with impunity. The network then grows out of the fact that new members are encouraged to join; those non-police who did not pay received disproportionate attention from the QLB.

Williams presented two mechanisms by which networks protect themselves (Williams, 2001 p. 71). Some networks defend themselves by developing buffer nodes at the periphery to protect the core from police investigation. The peripheral members undertake the high profile activity while the core members would keep such activity at arm's length to ensure deniability of any criminal action and to reduce their visibility to observers outside the network. This of course was the style of operation which necessitated the development of the Racketeer Influenced and Corrupt Organizations (RICO) legislation (Williams, 2001 pp. 74-75). Second, a network could be compartmentalised so that the loss of one compartment would not bring down the entire network. The Joke was an example of another form of protection; the active protection of corruption and alliances to ensure that law enforcement either did not occur or was deflected. It did not rely on a periphery or a compartmentalisation. The key players, Lewis, Herbert and Murphy were directly involved in the collection and payment of money. Nor were they isolated from one another's activities so that the fall of one would not draw attention to the actions of the others. They relied instead on the layers of protection and the elimination of any means of investigation of their illicit conduct. Nobody was policing the police and the alliance with the state's political leadership ensured that no external agency would interfere with or investigate the police.

Having a network core does mean that this is the locality of the network leadership. Carley, Lee and Krackhardt demonstrate that the leaders may not have the most contacts in the

network; a leader may only communicate with one lieutenant who then interacts with agents and allies. In such a group the leader is protected by the more central decoy should law enforcement make assumptions about targeting group members based on centrality. Removal of a central node or a broker would still inhibit the network's operation. They identify three subsets within a network: 'the knowledge network (who knows what), the information network (what ideas are related to what), and the assignment network (who is doing what)' (Franklin, Schorr, & Shapiro, 2008). Removing one node may not destroy the network if that node can be replaced by a new *emergent leader* to embody the leadership role or fill the network space (Carley et al 2002, p. 83). The Joke could deal with redundancy by replacement: Herbert replaced his predecessors as Organiser, Lewis could have replaced Murphy if needed, and Bischof, Bauer and Lewis all served as Police Commissioner.

Carley, Lee and Krackhardt also provide three indicators of destabilization: a reduction in the rate of information flow in the network, a failure/destruction or significant slowing down of the decision making process, or a reduction in operational effectiveness – the ability to conduct its tasks (Carley et al 2002, p. 86). What does matter is that disruption can occur through law enforcement and the network must adapt. We saw this in the end of the first Joke. The police commissioner was replaced by a non-Joke member. One commissioner, Bishcof, had been involved in both brokering new deals and ensuring protection. He was the mentor to the Rat Pack. It is clear that his replacement by another member was essential but not one with all of his connections. The new commissioner simply provided protection and the network adapted with Herbert and Murphy maintaining old relationships and building new ones. The information flow and decision making was between Herbert and Murphy, Bauer only had to provide protection. The arrival of Whitrod broke the Joke because his

removal of security destroyed operational effectiveness – as Osbourne pointed out to the Licensing Branch, without the approval from the commissioner the Joke was over.

Milward and Raab identified three alternative criteria of resilience (Carley et al 2002, p. 85). First the members needed to have character traits that supported the network. We can see these in the circumstances that drove the Joke's creation; the Licensing Branch had a monopoly on policing the providers of vice. The illicit operators had the money and the police had the authority. Second, the members had to be able to trust each other. The police had established trust with their customers over the decades of operation of the Joke. They could trust each other through the veil of silence that operates in all police cultures. Third the network is more resilient if it has *connectivity robustness*, the ability to respond and recover from losses of critical nodes. The Joke has redundancy built into the system. Herbert was one of a long line of operators and presumably could be replaced just as he had replaced his predecessor. The facilitator's role was mainly held by Murphy, but he had been mentored by Bischof and Lewis was his understudy. Similarly they had relied on cronyism to ensure that the positions of commissioner and head of the Licensing Branch were filled by Joke members. Unfortunately they met with a rare eventuality in the arrival of an honest and brave man in the position of Police Minister.

The study of resilience is valuable in determining how to destabilise or break up a network. Reducing resilience increases vulnerability (Ayling, 2009). Studies of resilience should do more than just describe vulnerabilities such as central nodes or personalities. The removal of key personnel, such as the most central node, will not necessarily collapse the network (Milward & Raab, 2006, pp. 350-351). Resilient networks are flexible and adapt to survive. The adaption may take many forms from replacement of lost individuals through to a major

reorganisation of the network. The points of resilience are the characteristics that allow the network to avoid or recover from an attack. Thus we should be wary on conclusions about network vulnerability that assume the relationships within the network are static and do not account for adaptation. This does not mean that we should not attack a network by undermining its strength but rather that we should avoid naïve assumptions as to what constitutes strength.

Bouchard used environmental studies of resilience to develop a list of characteristics which are useful in determining network resilience: *vulnerability* referred to the likelihood of damage from a specific type of attack; *elasticity* is the system's ability to return to its original state after taking damage; and the network's *adaptive capacity* is its ability to change to reduce its vulnerability (Bouchard, 2007, p. 329). We can build on these characterisations by adding *ceramic* networks; those that withstand great pressure, like a committee of inquiry, but are brittle and consequently shatter when damaged in the right way. The former has low centrality, with many pathways between nodes, and the latter high centrality, with a few brokers keeping the network operating. Historically, police corrupt networks have been ceramic; the wall of silence has protected the network from investigation, but as soon as a crack occurs, and one member decides to blow the whistle, then the whole structure of the network usually collapses (Fitzgerald, 1989; Herbert & Gilling, 2004; Wood, 1997). The internal failure of a ceramic network is a replication of a small world network, in which all members know what the other members are doing, as opposed to a cellular network where one rat cannot bring down the whole operation.

We can therefore conclude that resilient dark networks are not large, so they avoid attention, and have a low centrality. However, the Joke was a large operation. It involved dozens of

officers and even more illicit operators providing bribes. It had to be large in order to operate. Bribes were taken from many sources in different locations and there had to be a 24 hour apparatus of tip-offs to ensure that protection could be provided to bribers. A small group of even half a dozen could not have maintained the extent and continual operation of the Joke. It would not have the ability to provide layered protection nor the monopoly to ensure that there were no rival corrupt operations for protection, even within the same police force.

The Joke was equally subject to legal enforcement even though it was the law. Thus if the Joke has a large size then it must be because it has reduced attention from law enforcement. Various police commissioners, from Bischof to Lewis, ensured was that there was no policing agency that would investigate corrupt activity. Lewis guaranteed it by allying himself with the Premier. The Joke grew, and, one could argue, that this growth led to its visibility to the public and the increasing demands for action. But there was more to the Joke's resilience than simply layered protection, because resilience relates to more than just detection. Just as the Joke could not operate without protection from detection, it also is affected by supply and demand. If the QLB cannot supply protection then there will be no demand for their services. Likewise, if no one is able to pay bribes, then the protection service becomes worthless. The First Joke ended because the QLB was unable to operate without being detected.

Taking these factors into account, we can list the points of resilience in the Joke:
1. They had a large group of individuals willing to supply bribes, thus the loss of one or a few had little effect on the viability of the scheme.

2. The Joke members could rely on the internal security of the police cultural wall of silence to protect them against inquiry, especially as the heuristic of protecting one's mates in the Force extended to non-Joke officers.

3. They had layers of protection. The QLB protected the bribers; the senior police protected the QLB; and the union and politicians protected the senior police.

4. At least in the First Joke, there was redundancy in the network; key members were replaceable as evidenced by multiple bagmen, commissioners and facilitators. This was made possible by the continual movement of Joke members between these positions.

5. The Joke was a decentralised network so that only a few members were privy to the entire operation.

6. The Joke operated in a field with a low profile. The dealt with victimless crimes like gambling and prostitution, and no one died.

7. Finally, the Joke was able to continually renew itself with new actors. As Herbert explained, while he was careful who he approached about membership, no one ever turned him down.

The Second Joke provided an additional point of resilience as the membership of the Joke was extended to former police officers. Herbert increased his power as a broker once he was retired. He had greater ability to operate. But he maintained all the protections of the points of resilience as he was, as a former police officer, still 'one of us'. So what can social network analysis tell us about the resilience of the Joke?

Based on the above information we have made the following hypotheses about the social network that makes up The Joke:

1. A ceramic network like The Joke will have a high density because all actors will have contact with the other actors.

2. Both versions of the Joke will have low centrality as they lack a central core.

3. The average path length of both Joke networks will be low, reflecting the speed with which information can be shared about possible threats.

4. The Joke networks will have high closeness mean scores with low standard deviation, which would indicate the network is small and well connected without a central core. The individual closeness scores will indicate those actors closest to the centre of the network.

5. A small number of actors will have betweenness scores many times higher than the mean for both Joke networks, and that a high standard deviation will reflect the disparity in influence and control of the networks.

METHODOLOGY

The project followed two stages. First, data was extracted from the Fitzgerald Report (Fitzgerald, 1989) and Herbert's autobiography (Herbert & Gilling, 2004) and plotted as network maps. Three key variables were identified: bribes, transference of bribes and corrupt support. The use of longitudinal data and the role that organisations played within the networks lead to decisions being made about how best to represent the actors within the network. Where an office or position was held by consecutive members of the Joke then the office was included as an actor, rather than every individual that held the office. Where a group or organisation fulfilled a specific function in the network collectively they may have been collapsed into a single actor, rather than redundantly including each individual. These choices allow for a better exploration of the networks' structures, rather than the ties of the networks' members.

Network analysis theories were used to identify the strengths and weaknesses of the network. The relational data derived from the content analysis were collated and arrayed into matrices for each of the key variables identified above. Network maps were constructed using UCINET6. These were analysed for the key characteristics relating to resilience, namely, density, average path length, centralisation degree, closeness and betweenness. Data was only produced in relation to the First and Second Joke and not the Whitrod period. The Joke did not operate during the latter timeframe and, therefore, there was no data to collect or analyse.

ANALYSIS AND FINDINGS

The overall low density measures for the Network Map (aggregate ties) highlights the low degree of connection between actors. A loosely coupled network is a necessary feature for a clandestine entity (United Nations, 2002, p. 30), such as the corrupt police network which operates mostly under the radar, with players from different areas connecting the network (i.e. if it was too dense the corruption would be more recognisable). Another consequence of its confidential nature is the network's broken up or destructed format; one of the few central players is removed the network and information held between the others is disconnected.

The average path distance of both networks is slightly more than 2 degrees, meaning that if any actor has a piece of information they share with their contacts in the network, those contacts will be able to pass that information on and reach nearly everyone in the network. This property is closely related to the closeness scores for the actors in the network, as well as the mean and standard deviation for the network as a whole. In both Joke networks the majority of actors had closeness values approximately between 40 and 60, indicating that most actors could be considered in proximity to around half of the network's actors.

This is a critical feature of dark networks, they are only able to remain hidden and secretive if they are able to quickly learn of credible threats against them. While the two Joke networks are not directly comparable, the similar average path distance values, high closeness and low densities demonstrate that the networks of corruption had similar structures that kept them safe from scrutiny. Each still relied on three roles: Organiser, Facilitator and Commissioner. Herbert was Organiser of both even though by the Second Joke he was no longer a serving police officer. Murphy still played the role of Facilitator but this task was shared with Lewis who was both Commissioner and Facilitator.

The centrality of the First Joke network was 21.7% which is also quite low and indicates that the network is not controlled by one or two individuals. The players have multiple paths to connect with each other. Control of a bottle neck of pathways is power (Burt, 2005, p. 7). As this is not the case then we can conclude that the network has more than one person in a position of power. As has been already stated, these belong to Bischof, Murphy and Herbert. However, it does point to the fact that there is little distance between actors and therefore it is unlikely that those involved, even those on the peripheries were not aware of the activities.

The betweenness values in the network are a measure of the influence wielded by certain actors, and in the first Joke only two actors had betweenness values greater than two standard deviations from the mean; Jack Herbert (23.541) and Tony Murphy (21.023). These scores suggest that the majority of information would pass through their hands, putting them in a considerable position of influence and power over the internal workings of the network. Frank Bischof's betweenness value of 0.000 suggests that his role in the First Joke was

external to the network, as commissioner his role was preventing others becoming aware of the network.

The Joke began as a *transactional network*, that is, it emerged 'spontaneously as a mechanism to add efficiency to the functioning of a market' but its second incarnation was a *directed network* which was 'created and directed by a core of organizers who want to use it for specific purposes' (Sparrow, 1991). It operated in a clandestine manner behind the licit façade of the Queensland Police Force (Williams, 2001 p. 69).

The rejuvenated Second Joke lacked the redundancy of the first. Herbert was operating as an external broker and was not grooming a successor as he would have done had he remained in the Licensing Branch. Herbert's betweenness score of 53.598 is more than four standard deviations from the mean, indicating he had unparalleled influence over the network; the only other actors of significance were the licensing branch officers (betweenness value of 26.260). Murphy and Lewis relied on each other but also were not preparing a successor to the role of facilitator. The one position of certainty was that of commissioner where Lewis manipulated promotions to guarantee that only likeminded souls would be in a position to take over from him. Although one could claim that Lewis was not looking to retire in the foreseeable future.

There are limitations to this study. First, police inquiries and reminiscences of participants can be unreliable because they are incomplete and contain uncontested allegations. However, these are the best sources available. Secondly, and subsequently, network maps may plot relationships that have been identified by a third party without the benefit of confirmation. For example, Murphy has denied all allegations against him and has never been convicted of an offence arising out of the Fitzgerald Inquiry. Thus the appearance of a name on a map may

imply an unconfirmed relationship. Third, there are no network measures that specifically measure resilience as a property; rather we are limited to the data being descriptive of a resilient dark network and drawing out conclusion.

CONCLUSIONS AND IMPLICATIONS

Unexpectedly, The Joke did not have a high density. The network acted more like a loose network reducing individual character's awareness of the operations of others. Conversely, both versions of the Joke did have low centrality as they lack a central core, thus members could contact other members via multiple pathways. Similarly, the average path length of both Joke networks was low, with most members being only two steps away from others, and they had high closeness representing small and well connected networks. The biggest difference between the networks was in Betweenness with a shift from the First Joke with two key players, Herbert and Murphy, to the Second in which Herbert was the most significant player.

The supply and demand sides of the resilience equation were sound; there was no shortage of bribers or QLB officers willing to take them. Both versions of The Joke were decentralised, recruited new members and kept a low profile. However, the Second Joke network failed to maintain a policy of redundancy. The layers of protection were sound while they were in place. The absence of the Premier at the key time of the formation of the inquiry saw the political protection disappear. Likewise, once breached, the wall of silence collapsed quickly. Finally, even if Herbert had been arrested and simply kept quiet, his loss endangered the network. While new arrangements could have been made through other existing connections, Herbert held both a library of corporate knowledge and was the proactive operator of the movement of money.

The network measures used here in analysing the dark networks of the First and Second Joke lend considerable weight to the discussion of resilience. The combination of density, average path distance, closeness and centrality measures are successful at describing the structural features of the networks that we know contributed to their resilience. Betweenness is also useful in determining those members of the network whom are important and influential in the internal functioning of the dark network. However, these measures are not specific to the exploration of resilience, and rely considerably on interpretation of the results. As a proof of concept this paper shows social network analysis has great value in the research of resilience in dark networks, but further exploration of more complex network measures needs to be conducted to find a measure that relies less heavily on qualitative data.

References

Ayling, J. (2009). Criminal organizations and resilience. *International Journal of Law, Crime and Justice, 37*(4), 182-196.

Bouchard, M. (2007). On the Resilience of Illegal Drug Markets. *Global Crime, 8*(4), 20.

Burt, R. S. (2005). *Brokerage and Closure: An Introduction to Social Capital*. New York: Oxford University Press.

Carley, K. M., Lee, J.-S., & Krackhardt, D. (2002). Destabilizing Networks. *Connections, 24*(3), 14.

Chan, J. (1999). Governing police practice: limits of the new accountability. *The British Journal of Sociology, 50*(2), 20.

Cross, R., Borgatti, S., & Parker, A. (2002). Making Invisible Work Visible: Using Social Network Analysis to Support Strategic Collaboration. *California Management Review, 44*(2), 12.

Fitzgerald, G. E. (1989). *Report of a Commission of Inquiry Pursuant to Orders in Council*. Brisbane: Queensland Parliament.

Franklin, A., Schorr, L., & Shapiro, D. (2008). Racketeer Influenced and Corrupt Organizations. *The American Criminal Law Review, 45*(2), 871.

Granovetter, M. (1992). Problems of Explanation in Economic Sociology. In N. Nohria & R. Eccles (Eds.), *Networks and Organizations: Structure, Form and Action*. Boston: Harvard Business School Press.

Herbert, J., & Gilling, T. (2004). *The Bagman*. Sydney: ABC Books.

Keast, R., & Brown, K. (2005). *The Network Approach to Evaluation: Uncovering Patterns, Possibilities and Pitfalls*. Paper presented at the Australasian Evaluation Society International Conference.

Kennedy, G. A. (2004). *Royal Commission into Whether There has been Corrupt or Criminal Conduct by any Western Australian Police Officer*. Perth.

Klerks, P. (2001). The Network Paradigm Applied to Criminal Organisations: Theoretical nitpicking or a relevant doctrine for investigations? Recent developments in the Netherlands. *Connections, 24*(3), 13.

Lauchs, M. (2007). Rational Avoidance of Accountability. *QUT Law and Justice Journal, 7*(2), 10.

Milward, H. B., & Raab, J. r. (2006). Dark Networks as Organizational Problems: Elements of a Theory. *International Public Management Journal, 9*(3), 333 - 360.

Morselli, C., & Petit, K. (2007). Law-Enforcement Disruption of a Drug Importation Network. *Global Crime, 8*(2), 22.

Punch, M. (2009). *Police Corruption: Deivance, Accountability and Reform in Policing*. London: Willan Publishing.

Raab, J., & Milward, H. B. (2003). Dark Networks as Problems. *J Public Adm Res Theory, 13*(4), 413-439.

Scott, J. (1991) Social Network Analysis: A Handbook. London: Sage.

Sparrow, M. K. (1991). Network vulnerabilities and strategic intelligence in law enforcement. *International Journal of Intelligence and CounterIntelligence, 5*(3), 255 - 274.

United Nations. (2002). *Results of a Pilot Survey of Forty Selected Organized Criminal Groups in Sixteen Countries*. New York: United Nations, Office of Drugs and Crime.

Williams, P. (2001). Transnational Criminal Networks. In J. Arquilla & D. Ronfeldt (Eds.), *Networks and Netwars*. Santa Monica: Rand.

Wood, J. R. T. (1997). *Royal Commission into the New South Wales Police Service - Final Report*. Sydney.

Table 1: Social Network Analysis Results

Measurement	First Joke	Second Joke
Density	0.2174	0.1512
Average Path Length	2.103	2.262
Centralisation Degree	21.739 (%)	16.129 (%)
Closeness mean (standard deviation)	49.033 (8.404)	45.518 (8.189)
Betweenness mean (standard deviation)	5.251 (6.772)	4.353 (10.360)