Organisational adaptation in an activist network: Social networks, leadership, and change in al-Muhajiroun

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ABSTRACT

Social networks are said to facilitate learning and adaptation by providing the connections through which network nodes (or agents) share information and experience. Yet, our understanding of how this process unfolds in real-world networks remains underdeveloped. This paper explores this gap through a case study of al-Muhajiroun, an activist network that continues to call for the establishment of an Islamic state in Britain despite being formally outlawed by British authorities. Drawing on organisation theory and social network analysis, we formulate three hypotheses regarding the learning capacity and social network properties of al-Muhajiroun (AM) and its successor groups. We then test these hypotheses using mixed methods. Our methods combine quantitative analysis of three agent-based networks in AM measured for structural properties that facilitate learning, including connectedness, betweenness centrality and eigen-vector centrality, with qualitative analysis of interviews with AM activists focusing organisational adaptation and learning. The results of these analyses confirm that al-Muhajiroun activists respond to government pressure by changing their operations, including creating new platforms under different names and adjusting leadership roles among movement veterans to accommodate their spiritual leader's unwelcome exodus to Lebanon. Simple as they are effective, these adaptations have allowed al-Muhajiroun and its successor groups to continue their activism in an increasingly hostile environment.

1. Introduction

In August 2005, Omar Bakri Mohammed fled Britain following reports that he faced possible treason charges for his alleged support of the 7/7 London Underground attacks. Bakri was not a terrorist, but an Islamic scholar and political activist who attracted widespread attention for his inflammatory speeches, including statements he made before and after 9/11 that were supportive of Osama bin Laden and al-Qaeda (Wiktorowicz, 2005; Horgan, 2009). In the days after the London attacks, Bakri reportedly referred to the 7/7 bombers as the "Fantastic Four," which prompted the British government to investigate whether his remarks constituted treason (Churcher, 2005; McGrory, 2005; Waugh, 2005).[1]

In addition to being a provocative speaker, Omar Bakri was also the founder and *emir* (leader) of al-Muhajiroun (AM), an activist group that staged political rallies in Trafalgar Square and other prominent locations in Britain. Though small in number, Bakri's followers were a tight-knit group that venerated "Sheikh Omar" for his knowledge of Islamic theology and his personable, down-to-Earth leadership that highlighted his effective use of humor and his willingness to engage his students for extended periods (Wiktorowicz, 2005; Ronson, 2002).[2] Following several highly publicized demonstrations in the 1990s and early 2000s, al-Muhajiroun[3] came under pressure from police and security

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[1] For his part, Bakri denied calling the 7/7 bombers the "Fantastic Four" and condemned "the killing of innocent people" in the London Underground attacks (Waugh, 2005).

[2] These observations of Omar Bakri's leadership were confirmed in interviews conducted for this research with AM members, Nov/Dec 2010 and June 2011.

[3] In Arabic, Al-Muhajiroun means "The Emigrants." Omar Bakri's adoption of the term for his group was an allusion to the Prophet Muhammad's companions that accompanied him in exile to Medina following their expulsion from Mecca. Just as The Emigrants helped Muhammad establish a base for his new religion in Medina, a base from which he and his followers later conquered Mecca and much of the Arabian peninsula, so Bakri and his students hoped their organisation might play a similar role in bringing Islamic rule to Britain. For more on the history of early Islam, see Armstrong (2001), Brockopp (2010), and Lings (1983).

officials, who saw the group's repeated calls for an Islamic state in Britain as threatening to the country's interests. Numerous group members, including Bakri himself, were arrested for crimes relating to their activism and government authorities threatened to ban al-Muhajiroun and other Islamist organisations (Wiktorowicz, 2005). In response to these developments, and the growing challenges AM members faced in their daily activism, Bakri and his followers dissolved al-Muhajiroun in October 2004 and established two new groups, al-Ghurabaa (The Strangers) and the Saved Sect, both of which attracted many of the same members as the old AM platform (Cobain and Fielding, 2006).

However, after Bakri left Britain in the wake of the 7/7 bombings, the British government announced that he was banned from returning (Pennink, 2005). Suddenly, Bakri's students lost access to their charismatic leader, confronting them with their biggest challenge yet. A year later, British authorities increased the pressure on Bakri's followers by outlawing al-Ghurabaa and the Saved Sect, making it a criminal offence for individuals to belong to one of these groups (Ford, 2006; Woodcock, 2006). How would the group respond to these setbacks? Would Bakri's network of students and supporters be capable of continuing their intellectual and political struggle in Britain without their emir and their most prominent organisational platforms?

To answer these questions, this article applies theories from organisational behavior to a case study of al-Muhajiroun. Our inquiry proceeds in several steps. The next section draws on organisation theory and social network analysis to formulate three hypotheses regarding the learning capacity and social network properties of al-Muhajiroun and its successor groups. This is followed by a discussion of the research methods we used to evaluate our hypotheses. These mixed methods combined quantitative analysis of newspaper articles with qualitative analysis of interviews and field notes gathered from several months of ethnographic research. After describing our methods, we present the results and discuss our findings. This section integrates our quantitative analysis of the newspaper data, which draws on social network measures such as connectedness, betweenness centrality and eigenvector centrality, with our qualitative analysis of interviews and field notes, highlighting themes from organisational learning and adaptation. As our discussion of these findings makes clear, both sets of data and both types of analysis inform our understanding of how al-Muhajiroun and its successor groups adapted in response to pressure and how Omar Bakri's network of students and supporters evolved over time. We conclude with some final observations.

2. Hypotheses

A long tradition of research in organisational sociology argues that organisations learn when their participants acquire, analyze, and act on information and experience, changing existing practices or creating new ones (Argyris and Schön, 1996; Cyert and March, 1963; Simon, 1947). Learning does not become 'organisational' until shared knowledge is embedded in group practices and procedures. Organisations adapt not in isolation but through interactions with other groups, including adversaries that share their environment. In hostile environments, organisations gather information about their adversaries and adjust their activities to avoid unwanted disruptions or organisational death (Carley, 1999; Levitt and March, 1988; Kenney, 2007). While such changes may help organisations survive hostile environments they do not necessarily create more efficient or more productive entities (March and Olsen, 1975; Kenney, 2007). Applied to our case study, these insights suggest that:

H1. *Al-Muhajiroun 'learns' when members and associates receive information about their activities and apply this information to the group's practices and activities.*

H2. *Learning in al-Muhajiroun occurs in response to government efforts to disrupt the group's operations.*

Social networks facilitate learning by providing the connections through which network participants (or agents) share information and experience (Powell, 1990; Podolny and Page, 1998; Watts, 2003). These connections contain structural properties that can be measured through social network analysis. For example, degrees of separation measures the connectedness between network hubs (or leader agents) and peripheral nodes (or rank-and-file member agents) over time. Tightly connected networks that feature few degrees of separation between leaders and followers allow the former to share resources with, and exert influence over, their supporters. Betweenness centrality measures the extent to which each agent links disconnected groups in the network. Agents scoring high in betweenness centrality serve as brokers, connecting otherwise isolated nodes to the broader network (Freeman, 1979). Brokers facilitate information sharing—and learning—throughout the network as they pass along knowledge and other resources to less well-connected agents. Eigenvector centrality measures each agent's connection to other, well connected nodes in the network, while discounting the agent's connections to poorly connected nodes. Agents scoring high in this measure can disperse information and mobilize resources throughout the network quickly because they connect directly to hubs with links to many nodes (Hanneman and Riddle, 2005). The rapid diffusion of information is critical for networks that operate in hostile environments, where they confront adversaries that intentionally seek to disrupt their activities. To function effectively in such environments, networks must share information, make decisions, and adapt their operations rapidly in response to changing conditions (Kenney, 2007). Networks that contain agents high in eigenvector centrality will perform well in hostile environments, rapidly adapting their practices and procedures in response to external pressure.

Applied to data from this case study, these metrics allow us to evaluate the connectedness and evolution of the al-Muhajiroun network over time. When integrated with our interpretation of interview and field note data, they can also help us understand how the network shares information and adapts in response to feedback. Such measures are not static but change as the network responds to external pressure in a hostile environment. From these observations, we expect that:

H3. *Social network properties, such as connectedness, betweenness centrality, and eigenvector centrality vary in al-Muhajiroun and its successor groups over time as they respond to changes in their environment.*

This paper explores these hypotheses through a case study of an Islamist network that under a variety of names and organisational platforms has continued its political activism over the past fifteen years despite being targeted for disruption by British authorities (Wiktorowicz, 2005; Raymond, 2010).

3. Methods

This is an in-depth study of a "class of events" that aims to develop general knowledge about the causes of those events (George and Bennett, 2005, pp. 17–18). The class of events or scientific phenomenon of interest in this study is organisational learning and adaptation as experienced by an Islamist network that has confronted repeated government efforts to disrupt its operations.[4] In order to evaluate our research hypotheses on

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[4] Our use of the case study method is consistent with behavioral research on case studies as widely practiced in the social sciences. For more on case study methodology and its use as a research strategy, see George (1979), George and Bennett (2005), and Yin (2009).

organisational learning and the structure of al-Muhajiroun's social networks, we have gathered primary and secondary source data from a variety of sources.

The primary source data used in this study were gathered by the first author during several months of ethnographic field work in Britain. This field work was "ethnographic" in that the focus of our data collection and analysis was on understanding the *cultural* processes of organisational adaptation as experienced by participants in a specific cultural group, al-Muhajiroun (Creswell, 2007; Agar, 1980). Through the first author's interactions with, and observations of, many AM associates, we learned how their beliefs and behaviors contributed to the group's ability to learn from information and experience. In addition to these informal interactions, the first author interviewed 41 individuals that were actively affiliated with AM or one or more of its successor groups. He also interviewed an additional 28 respondents that included former al-Muhajiroun members that have left the movement, as well as government officials and independent researchers.

We used a variety of non-probability sampling techniques, including snowball sampling, purposive sampling, and convenience sampling, to construct our pool of AM and non-AM respondents. As with many ethnographic studies, we identified prospective respondents for their expertise, in this case their knowledge of the al-Muhajiroun movement, rather than their representativeness of larger populations (Bernard, 2006). While these sampling techniques are appropriate for our exploratory purposes, they limit our ability to generalize beyond the respondent sample and the AM case study. Most of the interviews were audio-recorded, always with the respondent's informed consent, and recorded interviews were transcribed by an independent, professional transcription service. When respondents did not give their permission to audio-record the interviews, the first author completed questionnaires with extensive hand-written notes that were later entered into electronic format.

In addition to interviewing respondents, the first author spent several months observing former AM associates in their "natural settings," attending their political demonstrations and public *dawah* (preaching) stalls and interacting with activists at different locations, including an education center where network leaders delivered talks to members. The first author documented these observation data in field notes, audio files, and photographs. During participant observation he recorded his impressions by jotting hand-written scratch notes in his notepad, later converting these notes into electronic format (Emerson et al., 1995; Sanjek, 1990).

We interpreted these interview transcripts and field notes according to concepts and themes relating to organisational learning and adaptation. However, as is common in qualitative analysis, additional themes emerged from our review of the primary source data that lay outside our conceptual framework yet contributed to our understanding of al-Muhajiroun (Corbin and Strauss, 2008). We extracted both sets of themes from our interviews and field notes using *NVivo*, a software program for coding and analyzing text (QSR International, 2011). After importing interview transcripts and field notes into *NVivo*, we read through each document line-by-line, to identify themes and sub-themes and hierarchically organizing these themes and sub-themes into different analytical units for subsequent interpretation. This coding process produced 1134 themes and sub-themes corresponding to al-Muhajiroun, organisational adaptation, and many other concepts, persons and events of interest. After coding, we returned to our thematically organized data extracts, reflecting on them further in an iterative process common in qualitative analysis (Corbin and Strauss, 2008; Johnson and Christensen, 2010;

Richards, 2009). In writing this article, we drew on this analysis to supplement our social network measures of al-Muhajiroun.

We collected the secondary source data in this study from English-language newspaper articles in Lexis Nexis Academic, an electronic database that contains full-text articles from over 2000 newspapers throughout the world beginning in 1980. Using a variety of search terms related to al-Muhajiroun and its successor groups, including Islam4UK, al-Ghurabaa, and the Saved Sect, we identified approximately 4000 newspaper articles for our secondary source dataset. However, when reviewing this initial dataset we discovered that it contained hundreds of duplicate articles and "false positives." The duplicate articles came from identical wire service reports that appeared in numerous publications in the Lexis Nexis database. False positives came from articles that appeared under one of our search terms, such as the Saved Sect, but whose content was unrelated to al-Muhajiroun. In order to facilitate the social network analysis of these data it was necessary to clean the dataset by removing these duplicates and false positives. This task was performed by research assistants that read each article in the larger dataset, eliminating all the duplicate articles and false positives they identified.

This winnowing process produced a final dataset of 991 newspaper articles published in sixty-four newspapers from 1996, the year al-Muhajiroun was formed in Britain, through 2009, the end point for our secondary source data collection. As might be expected, the bulk of articles dealing with al-Muhajiroun came from British publications. However, the range of countries with publications in the final dataset included Canada, China, Ireland (and Northern Ireland), Israel, Malaysia, New Zealand, Russia, Scotland, Singapore, and the United States. We made no attempt to sample or "balance" our selection of newspaper articles according to their publications' perceived "political" leanings. If the non-duplicate article appeared in an English-language newspaper in the Lexis-Nexis database during the publication years under study we included it in our dataset. Fortunately, the dataset included publications from across the political spectrum. For example, British periodicals in our dataset included publications that are traditionally identified as "conservative" (*The Daily Mail*, *The Times*, *The Daily Telegraph*), "liberal" (*The Guardian*, *The Observer*, *The Independent*), and "moderate" (*BBC Monitoring-International Reports*). It was not possible to include articles from non-English sources because the network mining tool used in our analysis works only with English-language text.

In this paper, we analyze the 991 newspaper articles in our final dataset using social network measures, including connectedness, betweenness centrality, and eigenvector centrality. However, before any networks could be measured, they had to be identified and extracted from the dataset. To do so we constructed a list of known al-Muhajiroun associates, people that reportedly belonged to al-Muhajiroun or one of its successor groups, and related Islamists, individuals that were affiliated with al-Muhajiroun but did not necessarily belong to the group. We compiled this list by reading through secondary sources, including newspaper articles, think tank reports, and scholarly publications to identify AM associates and related Islamists and coded them as such in a Microsoft Excel spreadsheet. Working from this spreadsheet, we verified each name in the list against a second information source, usually a separate news report. We only included individuals in the final list if they were identified and verified as al-Muhajiroun associates and related Islamists in this two-step process. To minimize problems with confirmation bias, the newspaper articles and other secondary sources used for this purpose were separate from the Lexis Nexis dataset of newspaper articles used for our social network analysis. To protect the privacy of our respondents we did not use any interviews or participant observation data to build the list of AM associates and related Islamists.

Following these procedures, we generated a list of 364 al-Muhajiroun associates and related Islamists. We then processed this list of agents in the Lexis Nexis dataset using AutoMap, a software program that extracts networks from texts (Carley et al., 2011b). AutoMap has been used by researchers to identify networks representing mental models (Carley, 1997), semantic associations (Kim, 2011), and social relationships (Frantz and Carley, 2008). It has been applied to a variety of domains ranging from email assessment (Frantz and Carley, 2008) to command post operations (Chapman et al., 2005) to media framing for stem cell research (Kim, 2011). In this research, we used AutoMap's word proximity function to identify relationships between different agents in the dataset. For example, AutoMap identified one link between Mohammed Babar and Omar Bakri from the following sentence in a newspaper article in the dataset: "[Mohammed] Babar, 31, told the court that he met Omar Bakri Muhammad, the exiled leader of al-Muhajiroun, a radical Islamist group, during a visit to Britain" (Woolcock, 2006).

Once the al-Muhajiroun agent network was extracted from the dataset, the next step was to measure the relationships among the nodes. This was done using ORA, a software program that integrates network statistics, graph analysis, and visual analytics to perform traditional social network analysis as well as dynamic network analysis (Carley et al., 2011a, 2007). ORA has been used to measure relationships in public health organisations (Merrill et al., 2010), emergency care units (Effken et al., 2011), citation networks (Meyer et al., 2011), drug trafficking conspiracies (Hutchins and Benham-Hutchins, 2010), and terrorist networks (Carley, 2006). In this article, we use ORA to compute standard social network measures, including degrees of separation, betweenness centrality, and eigenvector centrality.

The findings presented below are based primarily on the ORA analysis of al-Muhajiroun's agent-based networks extracted by AutoMap from the final newspaper dataset. In our discussion of these results we complement these social network measures with our interpretation of the primary source data gathered from our interviews and ethnographic field notes on al-Muhajiroun. We recently collected these interview and participant observation data and, as of this writing, they have not yet been processed by Auto-Map nor analyzed by ORA. This will be done in the next phase of the project, the findings for which will be reported in subsequent publications. In this article, we draw on the interview data and field notes to add interpretive insights to the network measures computed by ORA.

In the following discussion, we divide the newspaper data into three time periods corresponding to major events in al-Muhajiroun's history. Network A runs from al-Muhajiroun's founding in 1996 through October 4, 2004, when the group voluntarily disbanded under government pressure. Network B begins with the 7/7 bombings of the London Underground in 2005, an event that precipitated Omar Bakri's flight to Lebanon, to July 16, 2006, the day before the British government officially banned AM's successor organisations, al-Ghurabaa and the Saved Sect. Network C runs from July 17, 2006 to the end of the 2009 calendar year, the cut off point for our Lexis Nexis data collection.

In each network presented below nodes represent individual AM associates or related Islamists—a total of 364 persons or agents—that we extracted from the newspaper dataset using AutoMap. Segmenting the al-Muhajiroun networks into three distinct time periods corresponding to major events in the group's history allows us to track changes in the social network measures over time. This adds an essential dynamic component to our understanding of AM's evolution, particularly when combined with our interpretation of the interviews and field notes.

4. Results and discussion

Omar Bakri's relationship to his followers in al-Muhajiroun has varied over the years, particularly in response to government pressure to disrupt the Islamist network. Table 1 summarises this changing relationship, as measured by the degrees of separation between Bakri and other agents in the AM network. The numbers in each column provide the cumulative totals (i.e., two degrees of separation gives the cumulative total of rows 1 and 2, and so forth). The totals provided in the bottom row represent the total number of agents detected in the network, including isolates that are not connected to Bakri in this ORA-computed analysis.

Several characteristics of Bakri's connectedness to the network merit discussion. First, during any time period, if an agent is not connected to Bakri, that agent is not connected to anyone in the network; that is, the node is an 'isolate.' These individuals are still included in the network because they were identified as such in the classification of AM associates and related Islamists described earlier. Given the semi-clandestine nature of al-Muhajiroun, where many of the group's interactions occur in closed settings, it is possible that processing the open source newspaper data with AutoMap and ORA simply failed to capture these relationships.[5] However, it is also conceivable that some isolates represent "false positives," meaning that they are not involved in or affiliated with al-Muhajiroun at all. More research is required to bear these suppositions out. In this article, isolate nodes do not figure prominently in the analysis.

A second noteworthy element of the degrees of separation measures in Table 1 is that, at any point in time, every agent in the network that is connected to Bakri is connected to him by no more than four degrees of separation. Finally, Network A is a superset of Networks B and C. In other words, no new agents connect to Bakri after the first time period, when he leaves London for Lebanon.

These findings, depicted graphically in Fig. 1, underscore the significant, yet evolving, impact Omar Bakri's leadership has had on the al-Muhajiroun network. Consistent with our expectation, expressed in H3, that network connectedness will vary over time in response to changes in the environment, Bakri's connectedness to other agents in the al-Muhajiroun network declines following two important events. The first event occurs when Bakri, facing growing pressure and possible arrest from British authorities, leaves Britain for Lebanon shortly after the 7/7 attacks on the London Underground. While Bakri left Britain on his own accord, shortly after his arrival in Lebanon British authorities announced that he was prohibited from returning to the United Kingdom, effectively turning what was supposed to be a temporary trip into a permanent exile (Pennink, 2005). In Network A, measured prior to his departure from Britain, Bakri is connected to 84 agents, 83 of which he is connected to by no more than three degrees of separation. This is represented in Fig. 1 by the dense connections among nodes in the

Table 1
Omar Bakri: sphere of influence.

Degree of separation	Network A (1 January 1996–4 October 2004)	Network B (7 July 2005–16 July 2006)	Network C (17 July 2006–31 December 2009)
1	19	13	7
2	65	32	14
3	83	41	18
4[a]	84	42	23
Isolates	102	38	68
Total	186	80	91

[a] The figures presented in Rows 1 through 4 are cumulative; e.g., Row 4 gives the total number of agent nodes connected to Bakri during each time period.
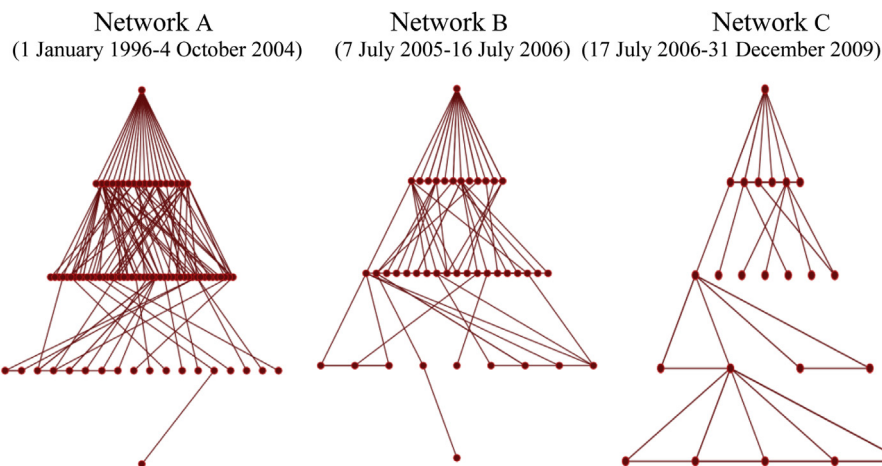
Network A   Network B   Network C
(1 January 1996-4 October 2004)   (7 July 2005-16 July 2006)   (17 July 2006-31 December 2009)

Fig. 1. Omar Bakri's changing sphere of influence.

top two tiers of the Network A pyramid. However, in Network B, where the July 7, 2005 cutoff approximates Bakri's move to Lebanon, his total connections within the network, measured in real terms, drops by exactly half, from 84 to 42 agents. This decline in connections is illustrated graphically in Network B's smaller, more diffuse pyramid structure.

The second event occurs one year later, in July 2006, when British authorities increase the pressure on Bakri and his students by outlawing al-Ghurabaa and the Saved Sect, two successor groups to al-Muhajiroun that were formed by Bakri's students to continue their political activism in Britain. In Network C, measured after al-Ghurabaa and the Saved Sect were banned, Bakri's total connections in the AM network, compared to Network B, drops by another 45 percent, from 42 to 23 agents. This drop is demonstrated in the smaller, more diffuse Network C pyramid shown in Fig. 1. According to these results, Bakri's visible connections to al-Muhajiroun decline, and the network itself becomes smaller, following his move to Lebanon and the formal banning of AM's two spin-off groups, two events that reflect an increasingly hostile environment for the group in Britain as government authorities crack down on the Islamist network.

Not only does Omar Bakri's connectedness to al-Muhajiroun weaken following these events, but the proximity of his connections, whether measured in real terms or percentages, declines over the same time period. In Network A, Bakri is connected by two degrees of separation to 65 of 186 agents or 34.94 percent of all the agents in the network, including the isolates. In Network C, Bakri is connected by two degrees of separation to just 14 out of 91 individuals, representing 15.38 percent of all the agents in Network C, again including the isolates.[6] While everyone in Network C remains connected to Bakri within four degrees of separation, the proximity of these connections declines as al-Muhajiroun's environment becomes increasingly hostile. Because the ability to influence other agents does not normally extend beyond the second degree, these findings suggest that Bakri's influence over AM associates and related Islamists declines, at least during the time period measured here. Following the British government's ban on al-Muhajiroun's

successor groups, not only does the AM network become smaller, but agents that remain in the network are further removed from the founder and spiritual leader of the original group.

These trends are consistent with ethnographic data collected during our field work in London. Numerous interviews with al-Muhajiroun leaders and associates, and participant observation of these and other AM figures at protests, dawah stalls, educational lessons, and Internet chat rooms suggest that Bakri's leadership has changed from direct oversight of al-Muhajiroun to symbolic, geographically removed leadership. While Bakri remains highly respected by his students, several al-Muhajiroun veterans based in Britain have essentially replaced their mentor as day-to-day emirs of the evolving network.[7] When al-Ghurabaa and the Saved Sect were banned by the British government, it was these AM veterans that created 'Ahlus Sunnah wal Jamaah,' an Internet discussion forum, and Islam4UK, a platform for conducting the group's political protests and Islamic "roadshows," largely without Bakri's direct involvement (Kenney, 2009; Raymond, 2010). These veterans have also increased their religious leadership within the group, delivering lectures in Islamic theology and jurisprudence that previously had been offered by Bakri himself.[8] More recently, a new, "third generation" of members has emerged, some of whom have had little or no direct contact with Omar Bakri. These individuals became involved with al-Muhajiroun through one of the successor groups, such as Ahlus Sunnah wal Jamaah and Islam4UK, that were created after Bakri left Britain. After these two groups were identified as al-Muhajiroun off-shoots and came under pressure from the authorities, some of these third generation members formed their own successor groups to facilitate their ongoing activism, including Muslims Against Crusades and Supporters of Sunnah.[9] While these young leaders receive guidance from senior al-Muhajiroun veterans that remain in Britain, it is not clear whether they receive any advice or direction from Bakri himself. More field research is required to address this question.

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[5] We are indebted to Luke Gerdes for this observation. Personal communication with Luke Gerdes, 6 April 2012.

[6] However in Network B, Bakri is connected by two degrees of separation to 32 out of 80 agents, representing 40 percent of the agents in the network, which suggests that in Network B his influence did not necessarily decline and may have even grown. We are grateful to Luke Gerdes for suggesting this line of analysis. Personal communication with Luke Gerdes, 6 April 2012.

[7] Interviews with AM members, Nov/Dec 2010 and June 2011, and field notes Nov–Dec 2010, June 2011.

[8] Interviews with AM members, Nov/Dec 2010 and June 2011, and field notes Nov–Dec 2010, June 2011.

[9] Interviews with AM members, Nov/Dec 2010 and June 2011, field notes Nov–Dec 2010, June 2011. In November 2011 British Home Secretary Theresa May formally banned Muslims Against Crusades, stating that the group "is simply another name for an organisation already proscribed under a number of names including Al Ghurabaa, The Saved Sect, Al Muhajiroun and Islam4UK" (Home Office, 2011).

What the primary source data do suggest is that Omar Bakri remains important in the al-Muhajiroun network but that his role is now mostly limited to delivering audio and video lectures to his followers online and advising his former students, including senior AM veterans that seek his counsel. Interview and participant observation data from this research also suggest that while Bakri's departure from London initially represented a major blow to his British followers, they eventually adapted to this setback by learning new ways of communicating with their emir via online technologies, and by the emergence of new leaders that assumed day-to-day authority for directing AM's operations in Britain.[10]

These developments are consistent with H1 and H2, which suggest that activist networks learn when their participants receive and apply information to their practices, often in response to government efforts to disrupt their operations. In this case, the impact of British authorities' efforts to disrupt al-Muhajiroun, though initially successful, weakened as AM associates learned how to communicate with their spiritual mentor through Internet-based chat programs and several of Bakri's long-standing students drew on their own experience and knowledge to become more involved in leading the group on a day-to-day basis. While these two adaptations, undertaken in response to government pressure, did not necessarily make al-Muhajiroun more "productive" or "efficient," they did allow the activist network to continue to function in a more hostile environment, even as members lost regular face-to-face access to their former operational leader.

While our qualitative analysis of the primary source data suggest that other leaders from within al-Muhajiroun emerged to replace Omar Bakri following his departure to Lebanon, to what extent, if at all, is this interpretation supported by other measures of network leadership? To answer this question, we examined the network of al-Muhajiroun associates and related Islamists for two measures of informal leadership, betweenness centrality and eigenvector centrality. These are considered measures of "informal" leadership because agents may score high in each dimension without ever holding a formal leadership position in the network. Such measures are appropriate for analyzing leadership in al-Muhajiroun because Omar Bakri was still considered the formal, undisputed "emir" of the network even after he left Britain. Following his departure to Lebanon, however, the question remained of who, if anyone, provided on-the-ground direction to his students in Britain.[11] Informal leadership is also important for learning and other organisational processes. Betweenness centrality, for example, measures the extent to which a given agent constitutes the most efficient path between other agents in the network. Individuals ranking high in betweenness centrality are likely to serve as brokers or gatekeepers between different cliques or subgroups within the network. Brokers facilitate learning within the network when they share information between otherwise disconnected agents and cliques (Table 2).

Table 2 rank orders al-Muhajiroun associates and related Islamists in terms of their betweenness centrality across the time periods captured in the three AM networks. During any given period, Bakri, the founder and spiritual leader of AM, ranks behind five to nine other agents in the network. This suggests that other individuals played important brokerage and information sharing roles in al-Muhajiroun even before the emir's departure from Britain. Moreover, Bakri ranks sixth in betweenness centrality in

Table 2
Betweenness centrality.

Rank	Network A		Network B		Network C	
1	Person 16	.042	Person 16	.078	Person 61	.013
2	Osama bin Laden	.037	Person 78	.060	Osama bin Laden	.012
3	Person 78	.035	Person 61	.051	Person 49	.011
4	Person 93	.020	Osama bin Laden	.039	Person 78	.009
5	Person 53	.013	Person 53	.027	Person 7	.009
6	Person 41	.011	Omar Bakri	.020	Person 34	.008
7	Person 29	.011	Person 29	.018	Person 16	.007
8	Person 62	.010	Person 20	.018	Person 41	.007
9	Person 7	.010	Person 93	.016	Omar Bakri	.005
10	Omar Bakri	.009	Person 49	.011	Person 2	.005

Figures presented are normalized ratios.

Network B and ninth in Network C, which suggests that he continued to play an important brokerage role in the network even after he left Britain. While Osama bin Laden's high betweenness centrality rankings in the AM networks is likely an artifact of the newspaper data, specifically the tendency of journalists to include mentions of the al-Qaeda leader in their reports on al-Muhajiroun, the high betweenness centrality of several other agents merits discussion.

Persons 49, 61, and 20 are all long-standing students of Omar Bakri's, each of whom was heavily involved in al-Muhajiroun from the beginning. All three students also assumed leadership roles in al-Ghurabaa and the Saved Sect by the time their spiritual mentor left Britain. These individuals were not Omar Bakri's office secretaries; they were leaders in their own right that helped their emir run al-Muhajiroun.[12] Interestingly, none of these three AM veterans rank in the top ten of betweenness centrality in Network A, when their spiritual mentor was still in Britain. However, in Network B, following Bakri's move to Lebanon, all three individuals emerge among the top ten agents for betweenness centrality. In Network B, Person 61 ranks third in betweenness centrality, while Person 20 ranks eighth and Person 49 ranks tenth. This suggests that all three AM veterans rose in importance as brokers and leaders after their mentor left London and al-Muhajiroun became smaller. Moreover, in Network C, measured after the British government banned the two successor groups, Person 61 ranks first in betweenness centrality, while Person 49 ranks third. This suggests that both AM veterans continued to be important brokers of information and contacts even after British authorities outlawed al-Ghurabaa and the Saved Sect, two groups they led in Britain once Bakri left the country.

For his part, Person 16, who ranks first in betweenness centrality in Networks A and B and seventh in Network C, was a prominent activist and key broker in al-Muhajiroun for many years. He connected different activists not only in Britain but in Pakistan as well, facilitating information sharing and learning within the broader AM network. Moreover, while living in Pakistan, Person 16 coordinated the movement of British militants into Pakistan and from there into Afghanistan. After he returned to Britain several years ago, Person 16 publicly acknowledged that he received military training in Afghanistan and Pakistan, and he sought to recruit other young Muslims to do the same. However, in recent years, he has ceased to be a leading member of al-Muhajiroun and its successor

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[10] Interviews with AM members, Nov/Dec 2010 and June 2011, field notes Nov–Dec 2010, June 2011.

[11] Interviews with AM members, Nov/Dec 2010 and June 2011.

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[12] This was confirmed in separate interviews with Persons 49, 61 and 20. Describing these respondents' specific roles in Al-Muhajiroun and its successor groups in too much detail risks violating their anonymity and privacy, which would undermine the informed consent protocol that guided primary source data collection. Interviews with Person 49 (November 4, 2010), Person 61 (November 8, 2010), and Person 20 (December 2, 2010).

groups, which may help account for his lower betweenness centrality score and ranking in Network C.[13]

Eigenvector centrality offers another way to measure leadership roles in al-Muhajiroun before and after Omar Bakri left Britain. This measure calculates the network's principal eigenvector, meaning that a given node is considered central to the network to the extent that its neighbors are central. Well-connected agents connected to other well-connected agents score high on this metric, while the formula discounts nodes possessing many connections, as well as accounting for the fact that most nodes have some connections. Eigenvector centrality is calculated using the largest positive eigenvalue of the adjacency matrix representation (Table 3).

Counter-intuitively, Omar Bakri's eigenvector centrality actually increases after he leaves Britain. In Network A, before he departs, Bakri's eigenvector centrality score is .309, which places him below the top ten agents in that network. In Network B, measured after he leaves London, Bakri's eigenvector centrality rises to a perfect score of 1. In Network C, measured after British authorities intensify the pressure on al-Muhajiroun by banning their two successor groups, Bakri's eigenvector centrality score drops slightly but remains high at .960.

What explains this apparent paradox? In the degrees of separation analysis earlier, we observed that following Bakri's exodus the al-Muhajiroun network became increasingly diffuse as the emir's direct connections to rank-and-file members declined. In other words, after leaving London Bakri's connections to poorly-connected AM nodes declines, which actually boosts his eigenvector centrality score. Moreover, after arriving in Lebanon, Bakri is able to reconnect with numerous students through a combination of online communications technologies and visits by his British students to Lebanon. Indeed, several of Bakri's long-standing followers, including Persons 16, 49, and 61, traveled to Lebanon shortly after his arrival, where they spent several weeks with their mentor before being deported by Lebanese authorities in November 2005.[14] Notably, all three of these individuals occupied leadership roles in al-Muhajiroun and its successor groups, and they all ranked in the top ten in eigenvector centrality for Network C, with two of them, Persons 49 and 16, receiving perfect eigenvector scores in that network. Two of Bakri's long-standing students, Person 49 and Person 61, also ranked in the top ten in eigenvector centrality in Network B. Bakri's ability to maintain his association to these well-connected agents at the same time that his connections to rank-and-file members was declining explains his high eigenvector centrality scores for Networks B and C.

The high eigenvector centrality scores of Omar Bakri and Persons 49, 61, and 16 in Networks B and C suggest that they played important roles in rapidly sharing information and mobilizing resources throughout the network given their direct connections to other network hubs. That the eigenvector centrality scores of Bakri and his long-standing students rose at the same time that al-Muhajiroun's environment was becoming increasingly hostile, as reflected in Bakri's departure to Lebanon and the British government's subsequent banning of al-Ghurabaa and the Saved Sect, is particularly significant. As discussed earlier, networks that contain agents with high eigenvector centrality values tend to perform well in hostile environments, due to their ability to share information and adapt their activities quickly in response to external pressure. Given the rising eigenvector

Table 3
Eigenvector centrality.

Rank	Network A		Network B		Network C	
1	Person 4	1	Person 4	1	Person 49	1
2	Person 29	1	Omar Bakri	1	Person 16	1
3	Person 77	1	Person 60	1	Person 5	1
4	Person 85	1	Person 77	1	Omar Bakri	.960
5	Person 13	1	Person 85	1	Person 53	.918
6	Person 33	1	Person 21	1	Person 27	.787
7	Person 21	1	Person 88	1	Person 34	.704
8	Person 6	1	Person 6	1	Person 62	.407
9	Person 69	1	Person 49	.626	Person 61	.390
10	Person 44	1	Person 61	.562	Person 78	.343

Figures presented are normalized ratios.

centrality scores of Bakri and his students, we expect that these hubs' played key roles in dispersing information and other resources to other network nodes, helping al-Muhajiroun weather an increasingly turbulent environment. Indeed, al-Muhajiroun's resilience in the face of growing government pressure may be explained in part by the ability of these hubs to share information and other resources between Bakri and his British-based followers.

5. Conclusions

When Omar Bakri Mohammed left London after the 7/7 London Underground bombings and the British government announced that he was no longer welcome in his adopted homeland, al-Muhajiroun activists abruptly lost access to their leader and spiritual teacher. A year later, the British government outlawed two groups Bakri and his students had created to continue their political activism following their dissolution of the al-Muhajiroun platform. While some groups may have folded at this point, or worse, declared that the "covenant of security" preventing them from attacking their country of residence was no longer valid, al-Muhajiroun did neither. Instead, the Islamist network did what it has always done when confronted with government efforts to disrupt its activities: it adapted.

This article explores how al-Muhajiroun changed its activities and leadership in response to counter-terrorism pressure. We do so by blending social network analysis of al-Muhajiroun networks derived from news reports with qualitative analysis of interview data gathered from AM members during field work in London. The principal findings from this mixed-methods case study support the research hypotheses we proposed at the outset of this inquiry. Consistent with H1 and H2, al-Muhajiroun members and associates learned to communicate in new ways and form numerous spin-off groups in response to government efforts to disrupt their operations. Consistent with H3, social network properties in al-Muhajiroun, including degrees of separation, betweenness centrality, and eigenvector centrality, varied over time as the network responded to challenges in its operating environment. The findings suggest that although the Islamist network was initially weakened by government pressure, following a period of readjustment Bakri and his followers were able to regroup under revised leadership and new operational platforms.

Omar Bakri's move to Lebanon had a direct, and deleterious, impact on his British-based network. Interviews with al-Muhajiroun members indicate that Bakri's departure represented a significant blow to his British students, at least initially.[15] Interviews and the degrees of separation analysis of

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[13] Interview with AM member, June 2011.
[14] Interviews with AM members, Nov/Dec 2010 and June 2011, field notes Nov–Dec 2010, June 2011.

[15] Interviews with AM members, Nov/Dec 2010.

the newspaper data suggest that Bakri lost his connections to many AM members and that the network itself became smaller as British authorities increased the pressure. Bakri's influence in al-Muhajiroun also apparently weakened, as reflected in the relative and absolute decline in his first and second-degree connections to network agents, particularly after British authorities banned al-Ghurabaa and the Saved Sect. One possible interpretation of these data is that al-Muhajiroun responded to the British government's pressure after the 7/7 attacks by "circling the wagons," intentionally downsizing and tightening the network to protect the remaining nodes. While certainly plausible, more data, including interviews with AM members and associates are needed to support this inference. What we do know, based on the interview and newspaper data collected to date, is that government pressure impaired the al-Muhajiroun network, at least in the short term, by reducing the ability of Bakri's students to interact with, and learn from, their personable emir.

Rather than stopping their activism Omar Bakri and his students adapted to these setbacks in a number of ways. Immediately after Bakri's departure from London, several of his closest students, including Persons 49 and 61, followed him to Lebanon, where they consulted with their mentor for several weeks before being deported by local authorities. Interviews and measures of betweenness centrality in the AM networks suggest that these individuals not only continued their activism after returning to Britain, but increased their leadership roles in al-Muhajiroun. Persons 49 and 61 delivered lectures to new recruits based on their mentor's own extensive teachings, and both were instrumental in leading al-Ghurabaa and the Saved Sect after Bakri left London. When the two groups were subsequently banned by British authorities, these and other AM veterans created additional spin-off groups, such as 'Ahlus Sunnah wal Jamaah' and Islam4UK, to continue their activities in the face of increased pressure. Through their combined efforts, Persons 49, 61 and other long-time Bakri followers essentially replaced their mentor as operational leaders of the British-based network.

Nor did these leaders and rank-and-file al-Muhajiroun members lose complete access to their teacher and spiritual mentor. Following a period of readjustment, Bakri's British-based students learned new ways of communicating with their emir through various online technologies. By exploiting online voice chat and video conferencing Bakri was able to continue teaching his British students on a regular basis from his new home in Tripoli. Such adaptations, simple as they were effective, allowed Bakri to remain involved in al-Muhajiroun, delivering lectures and issuing statements, at the same time that much of the day-to-day management of the group transferred to Persons 49, 61 and other trusted followers.

The importance of veteran leaders like Persons 49 and 61 only increased after British authorities outlawed al-Ghurabaa and the Saved Sect, as reflected in their rising betweenness centrality and eigenvector centrality rankings in Network C. Both veterans remained key brokers of information and other resources in al-Muhajiroun even after government authorities banned the two successor groups they led. Moreover, as suggested in their high eigenvector centrality scores in Networks B and C, both veterans, along with Person 16 and Omar Bakri himself, played important roles in rapidly sharing information and mobilizing resources throughout the network because of their links to other network hubs. That the eigenvector centrality scores of Bakri and his long-standing students rose at the same time that al-Muhajiroun's environment was becoming increasingly hostile is particularly significant. Networks that contain agents with high eigenvector centrality values tend to perform well in hostile environments, due

to their ability to share information and adapt their operations quickly in response to external pressure.

Indeed, in recent years, a pattern has emerged in which Bakri's students adapt to the growing number of groups that are banned by British authorities by simply creating new ones. These successor groups are based on the same ideas and strategies of the old groups. They also include many of the same veterans and rank-and-file members, whilst recruiting new members. The British government's recent banning of Muslims Against Crusades is merely the latest manifestation of this phenomenon. Bakri's students have already responded to this setback by forming new platforms. Successful adaptation for these activists is not measured in terms of the network becoming bigger, or more "efficient," but in continuing their activism, despite the British government's efforts to stop them. What matters, according to Bakri's followers, is not the name of this or that group, but the "call" itself, the struggle to establish an Islamic state in Britain. This struggle remains the same irrespective of what the activists choose to call themselves.[16]

At a basic level, the findings in this study are not particularly surprising. Intuitively we would expect that an activist network that was deeply committed to its cause would find ways to adapt to government pressure in order to continue its activities. These findings also resonate with the larger body of literature on social and organisational networks, including studies that emphasise the adaptability of illicit networks (Kenney, 2003; Raab and Milward, 2003). Such an outcome, however, was not preordained for al-Muhajiroun when Omar Bakri left Britain. At the time, it was not certain what would happen to Bakri's followers, whether they would continue or conclude their activism, or whether they would turn to more aggressive forms of political expression, including violence. That Bakri's students adapted their operations in numerous ways that allowed them to endure may not be altogether surprising, but it does underscore the resilience of network forms of organisation for groups that inhabit hostile environments.

Finally, the findings in this article are significant not only for what they tell us about how one group responded to government pressure, but for highlighting the value of mixed-methods in studying such networks more generally. Throughout this case study we have blended quantitative analysis of al-Muhajiroun networks derived from newspaper data with qualitative analysis of interviews with AM members gathered through ethnographic field work. As the discussion of our findings makes clear, both sets of data and both types of analysis inform our understanding of how leadership relations in al-Muhajiroun changed over time and how Omar Bakri and his students adapted to numerous setbacks. Notwithstanding the rigor of our methods, this case study remains just that: an in-depth look at a single case. The generalizability of these findings remains to be established through systematic comparisons to other cases. In addition, the social network analysis of the newspaper data remains to be applied to the interview transcripts. Whether, and to what extent, the networks that emerge from these primary source data resemble or differ from the networks discussed here is a topic for future exploration.

Acknowledgment

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[16] Interview with AM veteran, 13 November 2010.

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