How Cosmopolites React to Messages: America Under Attack

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The diffusion of information about critical events has been studied using events of differing importance in Americans’ lives. This study explores the diffusion of information about a tragedy that touched Americans and others around the world. Specifically, we explore how the time a person learned of the September 11 attacks influences their selection of communication channel(s) in passing on the information to others. This study also explores the impact of the notion of “cosmopoliteness” on channel selection and its impact on the diffusion process. The results of this study inform the diffusion literature by providing evidence that cosmopoliteness does affect the diffusion process. Implications are discussed.

Keywords: Diffusion; Cosmopoliteness; Critical Events; Technology

Introduction

The diffusion literature began in the mid 1940s and is reinforced periodically during periods of crisis documenting the speed with which messages diffuse about critical events such as presidential assassinations, and more recently the attacks on the World Trade Center and Pentagon. However, the environment has changed dramatically with the introduction of the Internet and other wireless communication technologies. In earlier periods, Americans in particular could ignore much of the world except in times of crises. That too has changed with growing interdependence among nations.

A concept that captures people’s connectedness to the larger environment or system is “cosmopoliteness,” a notion initially conceptualized as a single local—
national/international dimension. Updated versions of the concept have found that a multi-dimensional interpretation is more empirically viable, i.e., people could be high on both the "local" and other "national" or "international" dimensions, as well as other independent dimensions.

The more interdependent communication systems today and the internationalization of communication content and technologies call for a reexamination of the concept of "cosmopoliteness." Here we will explicate the concept to include multiple dimensions that reflect: diversity of interests, diversity of acquaintances, diversity of interpersonal communication network, cosmopolitan identification, interest in and an appreciation of different cultures, tolerance of different cultures, and diversity of media content to which one generally is exposed. Then, we will examine these variables in the context of people's reactions to the terrorist attacks on September 11, 2001.

**Diffusion of News about Critical Events**

Changing media technologies have altered how people first learn of major news events. The literature on diffusion of news about critical events dates back to the death of President Franklin D. Roosevelt in 1945 when a small convenience sample of Kent State University students showed that people were the first source of information, followed by radio (Miller, 1945). When President Dwight Eisenhower had a stroke in 1957, television was named as the primary source, followed by radio and then other people (Deutschman & Danielson, 1960). People again were the prime source when John F. Kennedy was assassinated in 1963 (Banta, 1964; Greenberg, 1964; Hill & Bonjean, 1964; Mendelsohn, 1964; Sheatsley & Feldman, 1964; Spitzer & Spitzer, 1965). Diffusion research on the attempted assassination of President Ronald Reagan in 1981 showed that people and television were the first to inform most people, followed by radio (Jeffres & Quarles, 1983; Quarles, Jeffres, Sanchez, & Neuwirth, 1983; also see Hudson & Miller, 1983), a scenario replicated for the most part when there was an attempt on the life of Pope John Paul that same year (Quarles et al., 1983). However, the opposite trend (47 per cent via radio, and 27 per cent via television) was reported by respondents in 1986 when asked how they learned about the explosion of the Space Shuttle Challenger (Pettey, Perloff, Neuendorf, & Pollick, 1986).

The importance of one medium vs another depends on the time when the critical event occurred. Thus, when a crisis erupts during the working hours, more people are at work and thus are more likely to learn through interpersonal channels. If an event occurs during "drivetime," the importance of radio increases. Whereas a crisis occurring in the evening increases television news' importance as a first source. The significance of the event also is a factor, speeding up the diffusion and increasing the relative importance of interpersonal channels (Bantz, Petronio, & Rarick, 1983; Greenberg & Parker, 1965; Jeffres, 1986, 1997; Mayer, Gudykunst, Perrill & Merrill, 1990). Although a country's media structure may affect some aspects of the diffusion
process, the general principles seem to operate everywhere (Haraldsen et al., 1987; Kepplinger, Levendel, Livolsi, & Wober, 1987; Mayer et al., 1990; and Tokinoya, 1994).

The ability of media to inform people is more crucial during crises, when people are more uncertain and dependent upon the media for information (Ledingham & Masel-Walters, 1985). However, diffusion processes may be altered with a changing media environment, which includes the proliferation of mass media, the availability of multiple television news channels, and the emergence of the Internet and mobile telephones as potential carriers of news and information. To some extent, even when crises erupt during the business day, we might find that the mobile telephone replaces interpersonal interaction as the news diffuses and as people call friends and family to let them know. Similarly, with more people online, e-mail and the Internet emerge as sources. Thus, we offer the following research questions:

RQ 1: How important will new media and cellular telephones be relative to interpersonal and traditional media channels in informing people of the September 11 events?

With more opportunities for contacting family and friends, we might expect a larger percentage of people to make an effort to contact others in this mobile world. Gantz and Trenholm (1979) identify four reasons people pass on news about critical events: (1) to satisfy informational and interest needs; (2) to establish social status, that they are superior to other people in some manner; (3) to express affection; and (4) to initiate social contact, to talk with others. Those who learn of a critical event early are most likely to spread the news (Weibull, Lindahl & Rosengren, 1987). The latter two reasons are motivations for when one learns of a crisis to call family and friends on cell phones, over traditional phones, or by e-mail, when they are located some distance away.

RQ 2: Will those learning of the event earliest be more likely to use interpersonal channels (i.e., talk to someone) or newer technologies (cell phones, e-mail) to pass on information?

Cosmopoliteness

The concept of cosmopoliteness has its origins in the Greek term “kosmos,” which conveys the idea of a universe of harmony and order (Moulla, 2002), but one of the more enduring interpretations of “cosmopoliteness” stresses a dimension that has been called alternatively rural–urban, or local–non local orientation (e.g., Cunningham, Cunningham, & English, 1974; Grimes & Berger, 1970; Martindale & Hanson, 1969; Merton, 1957; Needham, 1986; Petersen & Takayama, 1984). However, one study found that local–non-local was not a single dimension and people could be
strongly or weakly oriented to both local events and events outside the community (Neuwirth, Salmon & Neff, 1989).

Previous research on cosmopoliteness has led to the following dimensions of cosmopoliteness (Jeffres, Bracken, Neuendorf, & Kopfman, 2002): (1) Diversity of Interests—the extent to which an individual indicates an interest in local, national, and international news, and news or information about different cultures, peoples, ideas [1]; (2) Cosmopolitan Identification—extent to which one identifies with a larger international culture rather than as an American [2]; (3) Appreciation of Different Cultures—extent to which an individual has an interest in or experience with different cultures and a corresponding attitude of openness toward learning about different cultures [3]; (4) Knowledge of Different Cultures—level of information one has about different cultures and religions [4]; (5) Knowledge of Current Events and International Affairs—extent to which one is familiar with current events and international affairs [5]; (6) Cultural Diversity of Media Content—extent to which an individual exposes oneself to media messages from or about different cultures and countries [6]; (7) Diversity of Interpersonal Communication Network—the extent to which the people one communicates with interpersonally come from different backgrounds [7]. The concept of cosmopoliteness is viewed here as interchangeable with the notion that one is cosmopolitan.

We might expect some dimensions of cosmopoliteness to be related to diffusion processes. Elsewhere, we predicted that cosmopoliteness may be correlated with use of new communication technologies, which allow people with an interest in other cultures and nations to see diverse sources via the Internet or to be in contact with friends abroad through e-mail. Thus, we might expect these channel differences to emerge in the diffusion process as well, either in first learning of the terrorist attacks or in subsequent efforts to pass along the news. Thus, we hypothesize the following:

**H1:** Cosmopoliteness will be positively related to learning of the attacks through the newer communication technologies relative to other channels.

**H2:** Cosmopoliteness will be positively related to contacting other people to pass on news about the terrorism attacks through the newer communication technologies relative to other channels.

**Method**

A telephone survey was conducted in a major metropolitan area of the Midwest between October 20 and November 11, 2001. A computer-aided telephone-interviewing (CATI) system was used to interview 484 adults. The survey was introduced as a metro poll, and potential respondents were selected through traditional procedures [8], with a response rate of about 47 per cent.
Diffusion Variables

Location at Time of Diffusion. This was the first question in the survey. Respondents were asked, “Where were you when you first learned of the World Trade Center attack on September 11?” Responses were coded into seven categories including: at home, in a car/vehicle/bus, and at work.

Time One Learned of Attack. Next, respondents were asked when they first heard about the terrorist attacks of September 11. Respondents’ answers were categorized into three groups because of the small number of responses in each category after 10:05 a.m. Therefore, the variable used in the analyses had the following categories: (1) 8:45–9:02 a.m.; (2) 9:43–10:05 a.m.; and (3) 10:05 a.m. or later.

First Source of News. Respondents were asked, “How did you first learn of the attack?” Interviewers probed for sufficient information to categorize properly: someone told respondent in person; a phone call at home or work; received call on cell phone; the respondent learned of the events while at a website on the Internet; someone e-mailed the respondent; saw it on television; heard it over the radio; or read about it in the newspaper.

Passing on the News. Respondents were asked, “When you first heard of the attack, did you contact anyone else to tell them or talk about it?” Those who said yes, were asked, “What did you do?,” and responses were coded into the following categories: (1) talked to someone personally; (2) called someone on the phone; (3) went somewhere to talk with people; (4) e-mailed someone; (5) do not recall.

In addition, respondents were asked whom they first spoke with after finding out about the attack: (1) immediate family (mother, father, brother, sister); (2) extended family (grandparents, aunts, uncles, cousins); (3) friends; (4) coworkers/colleagues; (5) neighbors; (6) strangers; (7) others; (8) do not recall.

Cosmopoliteness Dimensions

Diversity of Interests. A measure of the extent to which respondents were interested in diverse things was measured through four items using a 0 to 10 (not at all interested to extremely interested) response scale to indicate how interested they were in different things. The items included were: news about current events in other countries; other cultures; learning of new ideas in the world of politics, philosophy, or government; and learning of new things in the world of arts and culture. Responses to the four items were standardized and summed for a scale ($\alpha = 0.80$).

Cosmopolitan Identification. Cosmopolitan identification was operationalized with two items measured on the same 0–10 scale and with the same instructions. Respondents were asked to indicate how much they agreed with the following two
statements: “I think of myself as a citizen of the world”, and “Some people see themselves only as Americans and nothing else but I think of myself as belonging to many cultures.” Responses were standardized and added for a scale ($z = 0.60$).

**Appreciation of Different Cultures.** An appreciation of different cultures was operationalized with four items that tapped an assessment of what’s going on in the world, perceived enjoyment of traveling to different countries and frequency of such travel, and perceived enjoyment in learning about different cultures. Three items used a 0–10 scale, (where 0 means one strongly disagrees, 5 is neutral and 10 means one strongly agrees): I am more aware of what is going on around the world than most of my friends; I enjoy traveling to different countries; I enjoy learning about different cultures. A fourth asked how many times in the past five years respondents had traveled outside the USA. Responses to all four items were standardized and summed for a scale ($z = 0.63$).

**Cultural Knowledge.** Three multiple-choice items and five true–false items were used to measure people’s knowledge of different cultures and religions. Correct responses were summed for a scale. The mean number of correct answers was 3.5, with a median of 3, a mode of 3 and a standard deviation of 1.99 [9].

**Cultural Diversity of Media Content.** A wide variety of items was used to ascertain cultural diversity of content from different media. The response scale varied slightly to fit the medium (from 0 for no access, 1 for almost never, to 7 for several times each day). Responses were standardized and summed for a measure of cultural diversity of media content. Examples of items were: How often do you visit websites in other countries, outside the USA?; How often do you watch films on TV that have subtitles?; How often do you watch Scola news from around the world on TV?; How much attention do you pay to the international news in the newspaper?; How often do you read news magazines? One item was deleted from the scale; the final $z$ for the scale was 0.74.

**Diversity of Interpersonal Communication Network.** Respondents were told the following: “Now, I’m going identify people from different backgrounds and I’d like you to tell me whether you’ve talked with someone like that in the past couple weeks or so, at home, at work, at a store or public place, or at a social gathering.” Affirmative responses were summed up for a measure of diversity. Five items tapped ethnicity [10] and five items tapped religion [11]. The ethnic communication network diversity scale has an $z$ of 0.68; the mean number of ethnic groups talked to was 3.0, with a median of 3, a mode of 5 and a standard deviation of 1.5. The religious network diversity scale had an $z$ of 0.47; the mean number of different religious groups was 3.1, with a median of 3, a mode of 4 and a standard deviation of 1.3. The two also were combined into a single interpersonal communication network
diversity scale ($\alpha = 0.69$); the mean was 6.1, with a median of 6, a mode of 6 and a standard deviation of 2.4.

**Results**

The results for research question one investigating if people learned about the attacks from the Internet and telephone calls more than traditional media channels demonstrates that interpersonal and traditional mass media channels were more important than Internet/e-mail and telephone contact. Specifically, respondents reported learning about the September 11 terrorist attacks in the following manner: Twenty-eight per cent ($n = 133$) were told in person, 25 per cent ($n = 121$) saw it on television, 20 per cent ($n = 92$) were called on the phone, 19 per cent ($n = 88$) heard it on the radio, while only 4 per cent ($n = 17$) were called on their cell phone, 1 per cent ($n = 6$) saw it on the Internet, and 0.6 per cent ($n = 3$) received an e-mail with the news, and 2 per cent (10) learned about the attacks in some other manner. These results provide evidence that e-mail and the Internet were not our primary means of initially learning about the event.

The second research question posited a difference between the time people first heard about the attacks and the communication channel chosen to pass on the news of the attacks. Using “Time one learned of the attack” as the independent variable and “Passing on information” as the dependent variable (using two categories of newer technologies and interpersonal communication), a $2 \times 3$ $\chi^2$ test was found to be significant with $\chi^2 (2, N = 222) = 5.74, p < 0.05, \eta^2 = 0.005$. Of the respondents who reported learning about the attacks between 9:03 a.m. and 9:42 a.m. (26 per cent, $n = 57$), and 8:45 a.m. and 9:02 a.m. (18 per cent, $n = 40$) reporting using newer technologies to contact someone more than those who reported learning about the attacks at 9:43 a.m. or later (11 per cent, $n = 25$). So, communication choices to pass on the news were influenced by the time people learned about the terrorist attacks, with people who learned about the attacks earlier being more likely to choose either e-mail or cell phone to pass on the information about the attacks. Thus, those who first learned about the attack seem to feel a greater sense of urgency and choose newer communication channels.

Logistic regression forced entry analysis was conducted to test hypothesis 1 which seeks to determine which of the cosmopolitaness dimensions were predictors of the communication channels through which the respondents reported learning about the September 11 attacks. The dependent variable was dichotomous with 1 = new technologies (e-mail and cell phones) and 0 = interpersonal and traditional mass channels. The results indicate that the overall model approached statistical significance, ($-2$ Log Likelihood = 348.90, Nagelkerke $\chi^2 (6, N = 253) = 9.66, p = 0.14$; Hosmer and Lemeshow $R^2 = 0.04$, $\chi^2 (6, N = 253) = 14.42, p = 0.07$). Evidence for fit of the model is mixed with the model being able to classify 77 per cent of the cases correctly. The odds ratio coefficient for the cultural diversity of media content shows that when the rest of the predictors are held constant, having a more culturally
A diversified diet of media content makes a person 1.06 times (6 per cent) more likely to have found out about the terrorist attacks via a cell phone. In a second analysis, demographic variables added as predictors (age, income, level of education, race, and gender) to the regression did not significantly change the amount of variance explained or the significance of the model.

Hypothesis 2 predicted that cosmopoliteness will be positively related to passing on the news of the attacks through newer media was tested using logistic regression forced entry analysis. The dependent variable was dichotomous with 1 = new technologies (e-mail and cell phones) and 0 = interpersonal channels (speaking to someone in person). The results indicate that the overall model approached statistical significance, \(-2 \log \text{Likelihood} = 207.80\), Nagelkerke \(\chi^2\) \((6, N = 253) = 4.22, p = 0.65\); Hosmer and Lemeshow \(R^2 = 0.04\), \(\chi^2\) \((6, N = 253) = 14.25, p = 0.07\). Evidence for fit of the model is mixed, with the model being able to classify 58% of the cases correctly. None of the cosmopoliteness dimensions are significant unique predictors of choosing new communication technologies to pass on information about the attacks. However, people choose communication channels which provide the most immediate feedback, with the majority of people calling someone on the cell phone (54.1%, \(N = 120\)), followed by 39.6% who talked to someone in person (\(N = 88\)), went somewhere to talk with people (5.4%, \(N = 12\)), and e-mailed someone (0.9%, \(N = 2\)). These results suggest while e-mail is often convenient; in this context the channel did not provide the immediacy people seemed to desire. In a second analysis, demographic variables added as predictors (age, income, level of education, race, and gender) were not significant and did not change the amount of variance explained or the significance of the model.

Discussion

The results of this study are consistent with previous studies investigating the diffusion of information with the majority of people learning about the terrorist attacks through either interpersonal or traditional media channels. However, this study is unique in that it explored the relationships between respondents’ cosmopoliteness and diffusion. The results provided modest support that such characteristics impact the diffusion of information by influencing the communication channel selection. Specifically, results from the first hypothesis that respondents who reported watching more culturally diverse media content, or scored higher on the Cultural Diversity of Media Content dimension of cosmopoliteness were more likely to have found out about the attacks via a cell phone.

As was investigated in the second research question, the time a respondent learned about the terrorist attacks influenced the communication channel through which people diffused information about the attacks. Specifically, those respondents who learned about the attacks earlier were more likely to contact others on their cell phone or via e-mail.
The small number of people who chose e-mail over calling someone or talking to someone in person to pass the news of the attacks on to others suggests people who learned about the attacks early on were seeking more immediate (i.e., real time) feedback from others in order to connect with those closest to them. The nature of e-mail is that feedback is often delayed, with some people checking their e-mail infrequently.

These results are probably heavily influenced by the time of day that the attacks occurred. The first two planes crashed during the morning commute with many people still in their cars. If the attacks occurred later in the day while most people were at work we may have seen a larger increase in internet and e-mail both in learning about the attacks and in passing on the information.

Additionally, the survey was conducted several weeks after the terrorist attacks and recall of respondents’ actions may have been impaired. Perhaps due to the magnitude of the event, people seemed to choose communication channels providing more instantaneous feedback. Cosmopoliteness seems to have played a limited role both how people learned about the attack and how they passed the information along. It may be the magnitude of the events overshadowed any distinctions that may have been seen in other circumstances.

The results of this study demonstrate that cosmopoliteness plays a role—though a limited one—in the process of diffusion of information. The results also support previous research demonstrating the point at which a person learns about an event (early or late) influences their choice of communication channel. Respondents reported choosing technologies affording them with immediacy and a feeling of closeness, the speed with which feedback could be provided also seemed to play a factor.

Notes

[1] This dimension is found in descriptions of local—non-local cosmopolite dimensions, Dye’s (1963) local cosmopolitan scale, and the literature on parochialism.

[2] Dye’s (1963) conceptualization of cosmopoliteness includes the notion that one identifies with larger systems.


[4] Paine saw education creating a “cosmopolitan” awareness of the world (Walker, 2000) and communication scholars have linked cosmopolitanism to education.

[5] Knowledge of current events and knowledge of cultures are probably related, but they are separate concepts, the former capturing currency in the news and the latter knowledge of peoples and backgrounds more closely tied to education than topical news.

[6] Each medium provides opportunity for audiences to expose themselves to unfamiliar events as well as ideas, peoples, and places from cultures and contexts different from their own, e.g., reading or ignoring international news in print media, reading magazines in other languages, seeing foreign films in theaters, watching films with subtitles on television, watching foreign news or content from distant places on television, visiting websites from other countries, etc. Audiences have an almost unlimited and unprecedented opportunity to embrace different
cultures and familiarize themselves with unfamiliar events in today’s media-rich environment.

[7] Although Sotirovic and McLeod (2001) looked at diversity of ideas, we focus on diversity of backgrounds of partners in our interpersonal communication networks. Diversity today should capture both ethnicity and religion.

[8] A random sample of telephone numbers was drawn from the telephone directory and random numbers were then substituted for the last two digits.

[9] The three items measuring knowledge of religion were:
(1) Which of the following religions believes in reincarnation? Islam, Hinduism (correct answer selected by 43.4 per cent), Confuciusism, Christianity.
(2) Which of the following accurately describes the Advent season in Christianity? It occurs in the period just before Easter, to herald the crucifixion; It follows Easter as a celebration of the resurrection of Jesus; It occurs in the weeks prior to Christmas as a period of penitence (correct answer selected by 47.2 per cent).
(3) In describing the religion Islam, which of the following is true? All of the Bible is rejected; Jesus is accepted as a prophet (correct answer selected by 29.1%); Mohammed is another word for God; The holy site of Mecca is in Afghanistan.

The four items measuring knowledge of different cultures were:
(4) The African-American Kwanzaa celebration migrated to the USA from Kenya, where it is an old tradition (false, correctly given by 27 per cent);
(5) China was a strong unified country run by the Manchu Dynasty until it was invaded by Japan in World War 2 (false, correctly given by 37.4 per cent);
(6) Brazil is the most populated Spanish-speaking country in Latin America (false, correctly given by 41.3 per cent);
(7) The Persian Empire was centered in Iran (true, correctly given by 48.5 per cent);
(8) The largest American Indian tribe, the Navajo, live in the Southwest (true, correctly given by 71.5 per cent).

[10] Five items tapped ethnicity: (1) Someone from an Asian background such as Chinese, Japanese, Korean, Thailand, Indonesia, or the Philippines (talked to by 58.1 per cent); (2) Someone from the subcontinent of Asia, such as India or Pakistan (talked to by 42.6 per cent); (3) Someone who is Hispanic, from Latin America or Puerto Rico (talked to by 60.4 per cent); (4) Someone who is Middle Eastern, such as Lebanese or Arab (talked to by 54.7 per cent); (5) Someone who is African-American or Black (talked to by 87.9 per cent).

[11] The items measuring religious communication network diversity were: (1) Someone who is an Orthodox Christian (talked to by 47.7 per cent); (2) Someone who is a Catholic (talked to by 90.6 per cent); (3) Someone who is Protestant (talked to by 68.3 per cent); (4) Someone who is Jewish (talked to by 61.5 per cent); and (5) Someone who is Moslem (talked to by 38.3 per cent).

References


