

feature article *lee clarke*

panic: myth or reality?

Images of group panic and collective chaos are ubiquitous in Hollywood movies, mainstream media and the rhetoric of politicians. But, contrary to these popular portrayals, group panic is relatively rare. In disasters people are often models of civility and cooperation.

It was like a disaster movie, only more unreal. The smoke and debris chased would-be survivors of the World Trade Center disaster through the glass and steel canyons of New York City. It was “chaos,” the media told us. The description seemed viscerally correct, for how could such an unforeseen disaster generate anything but panic? A construction worker who was on the 34th floor of the North Tower recounted, “The whole building shook. We saw debris flying and then there was an explosion. We hit the stairwell; it was a mass panic.”

Such a story represents a common tale about panic, which the Oxford English Dictionary defines as an “excessive feeling of alarm or fear... leading to extravagant or injudicious efforts to secure safety.” We often see self-interest added to the common tale, the idea that people react so strongly that they will sacrifice others to save themselves. In other words, people become overly frightened and then overreact in ways that hurt themselves or others. However, this image of panic makes a necessary link between fear and reckless action, sometimes with a measure of selfishness thrown in. In fact, such behavior doesn’t happen as often as one might think.

Nonetheless, Hollywood producers tell tales of panic-stricken chaos in movie and television depictions of catastrophes. The media are quick to report panic after building fires or mass transit crashes. Leaders seem to believe that the general population is prone to irrational panic, as witnessed by Washington’s reluctance to fully inform the public about anthrax.

However, we have nearly 50 years of evidence on panic, and the conclusion is clear: people rarely panic, at least in the usual sense that word is used. Even when people feel “excessive fear”—a sense of overwhelming doom—they usually avoid “injudicious efforts” and “chaos.” In particular, they are unlikely to cause harm to others as they reach for safety and may even put their own lives at risk to help others.

panic myths

Movies fuel the idea that people are quick to panic. *Independence Day*, *Armageddon* and *Earthquake in New York* are typical: people climb over friends, family and strangers to save themselves. The films suggest a tipping point beyond

which people are so overcome with fear that they put self-interest over regard for others. After all, the reason we think it’s wrong to yell “fire” in a crowded theater—even if the theater is on fire—is our assumption that the ensuing panic would cause more death than the fire itself. In Hollywood’s depictions, panic strips away people’s veneer of social responsibility to reveal raw selfishness.

After five decades studying scores of disasters such as floods, earthquakes and tornadoes, one of the strongest findings is that people rarely lose control.

Officials also perpetuate such images. Before the Y2K rollover, for example, politicians and business managers urged people not to overreact, not to panic, if there were software failures. Alan Greenspan, chair of the Federal Reserve Board, worried that people would rush to take their money out of banks. As the critical moment approached, John Koskinen, chair of the President’s Commission on Year 2000 Conversion, became concerned less about failing machines than about panic: “As it becomes clear our national infrastructure will hold, overreaction becomes one of the biggest remaining problems.”

Decision makers sometimes withhold information because they believe that panic will ensue. For example, during the nuclear incident at Three Mile Island, utility representatives failed to tell people and even government officials how serious the situation was because they were trying to “ease the level of panic and concern.”

The general public probably holds this notion of panic, too. It is not unusual to read quotes from survivors of catastrophes—recall the World Trade Center survivor—in which people interpret the behavior of others, or even themselves, in terms of panic. What they are usually reporting, though, are feelings of fear and not panic-stricken behavior.



Workers and bystanders watch a fire destroy the Gates Rubber Company in Denver, Colorado, 1940.

panic facts

Panicky behavior is rare. It was rare even among residents of German and Japanese cities that were bombed during World War II. The U.S. Strategic Bombing Survey, established in 1944 to study the effects of aerial attacks, chronicled the unspeakable horrors, terror and anguish of people in cities devastated by firestorms and nuclear attacks. Researchers found that, excepting some uncontrolled flight from the Tokyo firestorm, little chaos occurred.

An enormous amount of research on how people respond to extreme events has been done by the Disaster Research Center, now at the University of Delaware. After five decades studying scores of disasters such as floods, earthquakes and tornadoes, one of the strongest findings is that people rarely lose control. When the ground shakes, sometimes dwellings crumble, fires rage, and people are crushed. Yet people do not run screaming through the streets in a wild attempt to escape the terror, even though they are undoubtedly feeling terror. Earthquakes and tornadoes wreak havoc on entire communi-

ties. Yet people do not usually turn against their neighbors or suddenly forget personal ties and moral commitments. Instead the more consistent pattern is that people bind together in the aftermath of disasters, working together to restore their physical environment and their culture to recognizable shapes.

Consider a few cases where we might have expected people to panic. The first, investigated by Norris Johnson, happened during Memorial Day weekend in 1977, when 165 people perished trying to escape a fire at the Beverly Hills Supper Club in Southgate, Kentucky. The supper club case recalls the fire-in-the-theater concept in which panic supposedly causes more deaths than the failure to escape in time.

Roughly 1,200 people were in the club's Cabaret Room, which had three exits. Two exits were to the side and led outdoors, and one was in the front and led to another part of the club. When the club's personnel, having discovered fire in the building, started telling customers to leave, a handful of people went to the front entrance while the others started filing calmly out of the other exits. However, the people who tried

Photo courtesy of the Denver Public Library

to get out of the front entrance soon ran into smoke and fire, so they returned to the Cabaret Room.

Survivors reported feeling frightened, but few acted out their fear. People were initially calm as they lined up at the two side exits, near which all of the deaths occurred. When smoke and fire started pouring into the Cabaret Room, some began screaming and others began pushing. As fire entered the room, some people jumped over tables and chairs to get out.

Notice what they did not do. They did not pick up those chairs and use them to strike people queued up in front of them. They did not grab their hair and shove them aside in a desperate rush to get out. They did not overpower those more helpless than themselves. They did not act blindly in their own self-interest. In Kentucky, few people acted out a panic. Indeed, had people developed a sense of urgency sooner, more would have gotten out and fewer would have died. Panic was probably not the cause of any of the deaths. It is more accurate to say that the building layout was inadequate for emergencies. The second case, also researched by Johnson, happened in

December 1979 at the Riverfront Coliseum (as it was then called) in Cincinnati, where 11 people were killed at a rock concert by The Who. The concertgoers were killed in a crush that was popularly perceived as a panic. The reality was far different. Approximately 8,000 people were waiting for the concert, but the building was not built to accommodate that many people waiting at once. After the doors opened, about 25 people fell. Witnesses say there was little panic. In fact, people tried to protect those who had fallen by creating a human cordon around them. But the push of the people behind was too strong. The crowd trampled the 25 people out of ignorance rather than panic. Like the Beverly Hills club, Cincinnati's Riverfront Coliseum was not designed to fail gracefully. Users would be safe as long as they arrived in anticipated numbers and behaved in ways designers had anticipated.

Consider, also, the tragic flight of American Airlines 1420. In Little Rock, Arkansas, on June 1, 1999, Flight 1420 tried to land in a severe thunderstorm. As the pilots approached, they couldn't line the plane up with the runway and by the time



Photo by Michael Macor, Oakland Tribune

Citizens help rescue workers in Oakland care for the injured after the 1989 Loma Prieta earthquake.

they righted the craft they were coming in too fast and too hard. Seconds after the plane touched down, it started sliding and didn't stop until after lights at the end of the runway tore it open. The plane burst into flames, and 11 of the 145 aboard were killed.

People die the same way they live, with friends, loved ones and colleagues—in communities. When danger arises, the rule—as in normal situations—is for people to help those next to them before they help themselves.

The National Transportation Safety Board's "Survival Factors Factual Report" has more than 30 pages of survivor testimony. Most survivors who were asked about panic said there was none. Instead there were stories of people helping their spouses, flight attendants helping passengers, and strangers saving each other's lives. One fellow said that after the plane came to rest "panic set in." But his description of subsequent events doesn't look much like panic. Having discovered the back exit blocked, he found a hole in the fuselage. Then, "he and several men," says the report, "tried to pull the exit open further." He then allowed a flight attendant and "six to eight people" to get out before he did. Another passenger said that people panicked somewhat. But in his telling, too, people worked together to push an exit door open. He himself helped pick up a row of seats that had fallen atop a woman. As "smoke completely filled the cabin from floor to ceiling," people could barely see or breathe; yet they "were in a single file line [and] there was no pushing and shoving." We would not expect that much order if everyone was panicking.

The same message rises from the rubble of the World Trade Center. Television showed images of people running away from the falling towers, apparently panic-stricken. But surely no one would describe their flight as evincing "excessive fear" or "injudicious effort." Some survivors told of people being trampled in the mass exodus, but those reports are unusual. More common are stories such as the one from an information architect whose subway was arriving underneath the Trade Center just as the first plane crashed. He found himself on the north side of the complex, toward the Hudson River: "I'm looking around and studying the people watching. I would say that 95 percent are completely calm. A few are grieving heavily and a few are running, but the rest were very

calm. Walking. No shoving and no panic." We now know that almost everyone in the Trade Center Towers survived if they were below the floors where the airplanes struck. That is in large measure because people did not become hysterical but instead created a successful evacuation.

Absent a full survey of disasters, we do not have statistical evidence that chaotic panic is rare, but consider the views of E. L. Quarantelli, co-founder of the Disaster Research Center and a don of disaster research. He recently concluded (in correspondence to me) that "I no longer believe the term 'panic' should be treated as a social science concept. It is a label taken from popular discourse.... During the whole history of [our] research involving nearly 700 different field studies, I would be hard pressed to cite... but a very few marginal instances of anything that could be called panic behavior."

panic rules

That people in great peril usually help others, even strangers, seems to contradict common sense. It also contradicts the idea that people are naturally self-interested. If people are so self-regarding, why do they act altruistically when their very lives are at stake? One answer is that people sometimes act irrationally by going against what is in their best interests. From this view, the men on American Airlines Flight 1420 were not exercising sound judgment when they helped free the woman whose legs were pinned. They could have used the time to save themselves.

If cases like this were rare, it might be reasonable to call such behavior irrational. But they're not rare, and there is a better explanation of them than irrationality. When the World Trade Center started to burn, the standards of civility that people carried around with them every day did not suddenly dissipate. The rules of behavior in extreme situations are not much different from rules of ordinary life. People die the same way they live, with friends, loved ones and colleagues—in communities. When danger arises, the rule—as in normal situations—is for people to help those next to them before they help themselves. At the Supper Club fire and The Who concert, people first helped their friends and family. As we have seen, people help strangers. That's one of the big lessons from the World Trade Center. Such behavior seems odd only if we're all naturally selfish. Instead, an external threat can create a sense of 'we-ness' among those who are similarly threatened.

Disasters, like other social situations, have rules, and people generally follow them. They are not special rules, even though disasters are special situations. The rules are the same ones at work when the theater is not on fire. Human nature is



Photo courtesy of the Minnesota Historical Society

Collapse of the Morris Fruit and Produce Company Building, Minneapolis, 1937.

social, not individually egoistic. People are naturally social, and calamities often strengthen social bonds.

failing gracefully

All of this is not to say that the stereotypic panic reactions never happen. Individuals do experience feelings of uncontrollable dread. The American Psychological Association says 1 out of every 75 people might suffer a “panic attack,” an overwhelming sense of fear that’s out of proportion to a perceived threat or to no threat at all. We’ve all heard the post-September 11 stories about powdered milk being mistaken for anthrax. There are also occasional soccer stampedes and bona fide cases of uncontrolled flight. It would be folly to say that people are always sensible. There are overreactions to scares about witches, drugs and sex. Scholars dub such phenomena “moral panics,” or overreactions that are governed by people’s moral sensibilities rather than actual threat. Nonetheless, the panic of popular imagery is rare.

The myth of panic endures because it provides an easy explanation for complex things. For example, attributing the deaths at The Who concert to panic detracts attention from an engineering failure (the building could not accommodate so many people waiting at once), a management failure (not forecasting the demand for entry into the concert) and an organizational failure (once the disaster began it could not be stopped). Or consider a soccer “stampede” in Ghana in 2001 in which 130 people were killed. Calling that event a panic would deflect attention away from the police who fired tear gas into a crowd of about 30,000 and from the fact that the exits were locked. The idea of panic works to blame the victims of a disaster, deflecting attention from the larger contexts of people’s behavior.

An alternative to panic as an explanation of how people respond to disasters is the idea of failing ungracefully. In software engineering a system that fails “gracefully” can take discrete breakdowns without crashing the whole computer program. In the present context social relationships and artifacts (walls, machines, exits, etc.) no longer function as they

were designed. Such conditions make collective panic more likely. U.S. air traffic control fails gracefully. A new procedure begun in 2000 tracks data so that if one component fails, another is immediately available; controllers do not panic because their monitoring systems are highly reliable. Modern elevator systems are designed to fail with grace. In January 2000, a cable on one of the Empire State Building's elevators broke, sending its occupant on a quick 40-story drop; but other safety systems kicked in to control the elevator's stop. An example of ungracefulness was the system of building football rally bonfires at Texas A&M University. When, in November 1999, that system started to fail, there was little to prevent loss of life and 12 were killed.

not panicking about panic

Dispelling the myth of public panic highlights the sociality rather than the individuality of human nature. It leads to optimism about people. If people generally act well under the most trying of circumstances—precisely when it would be easiest to turn their backs on others—it gives us reason to look for the good and the sensible in them at other times as well. Jettisoning the myth of public panic could also increase elites' trust of people. Politicians and corporate managers have a litany of responses after some mishap:

"There was never any danger to the public."

"Everything is under control."

"There is no reason for concern."

Behind such public pacifiers is the presumption that people cannot be trusted with bad news.

Communications based on that presumption generate distrust and suspicion. The U.S. Army is headed down that road. The Army is destroying America's stockpile of chemical weapons. Army representatives have asserted that none of the chemicals could be released into the environment. The Army has been wrong. There have been releases of mustard gas and of Sarin gas. After the accidents Army representatives assured everyone that "there was no danger to the surrounding communities or to the environment." University of Arizona researchers found that a lot of people do not trust the U.S. Army's promises. The Army's attitude is one of public pacification; it assumes that people are prone to irrational panic. The problem is that in the event of a real hazardous mustard gas release, people may not trust what Army personnel have to say.

Before, during and after disasters, the "general public" warrants trust and respect. Panic is often used as a justification by high-level decision makers to deny knowledge and access to the public, on the presumption that people cannot handle bad news. Research on how people respond to life-threatening disasters and the stories from the World Trade Center show that people handle even the most terrifying news civilly and cooperatively. Our leaders would do well to see us as partners in recovery rather than as a "constituency" to be handled. ❧

recommended resources

Clarke, Lee. *Mission Improbable: Using Fantasy Documents to Tame Disaster*. Chicago: University of Chicago Press, 2000. Shows how and why leaders, claiming to fear public panic, sometimes overpromise safety.

Erikson, Kai. *A New Species of Trouble: Explorations in Disaster, Trauma, And Community*. New York: W. W. Norton, 1995. Masterful collection of stories about how people respond to catastrophe; community and trust rather than panic are the key issues.

Extreme events: <http://www.albany.edu/cpr/xedm>. This links to the proceedings of a conference on "extreme events," as the National Science Foundation dubs them.

Freudenburg, William F. "Risk and Recreancy: Weber, the Division of Labor, and the Rationality of Risk Perceptions." *Social Forces* 71 (June 1993): 900-32. People worry about risk not because they are panicky but because our leaders often don't warrant trust.

Hersey, John. *Hiroshima*. New York: Bantam Books [1946] 1986. Best existing account of what it was like to be at a nuclear ground zero. Resignation and depression were more prevalent than panic.

Janis, Irving Lester. *Air War and Emotional Stress*. New York: McGraw-Hill, 1951. The Japanese response to atomic attacks: little panic.

Johnson, Norris R. "Panic and the Breakdown of Social Order: Popular Myth, Social Theory, Empirical Evidence." *Sociological Focus* 20 (August 1987): 171-183. Close investigation of some modern disasters, in search of the elusive panic.

Quarantelli, E. L. "Sociology of Panic." In *International Encyclopedia of the Social and Behavioral Sciences*. Oxford, UK: Pergamon Press, 2001. A don of disaster research revisits a conclusion he reached many years before: "panic" isn't a useful scientific concept.