## Community relations under pressure: Local residents' perceptions of corporate crisis communication

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### Abstract

High-risk organizations, such as chemical companies, are urged to engage in long-term, dialogic community relations with local residents. Community engagement can establish organizational legitimacy and help to address local concerns. However, stakeholders may be skeptical toward communication efforts made by high-risk organizations, especially during crisis situations. This qualitative study explores whether two Belgian communities are skeptical of the communication efforts made by chemical companies regarding pollution crises, what motives they attribute to the crisis communication, and which communication characteristics shape those attributions. Indepth interviews with 47 local community members reveal that the crisis concerns over (a) legitimacy, (b) financial consequences and (c) legal liability. Interviewees believed that these self-serving motives took precedence over public interests. This study also describes communication cues that triggered or strengthened suspicions. Practical recommendations are proposed for chemical companies to improve relationships with local communities.

**Keywords**: crisis communication, risk communication, community engagement, dialogue, skepticism, motives

Chemical companies bring about environmental, health and safety issues (Capriotti, 2007; Zoller, 2012). Risk communication research, therefore, advises chemical companies to invest in long-term community engagement (Heath & Palenchar, 2000; Palenchar & Heath, 2007), through which organizations can seek to strike a balance between risk and economic gains (Verbeek, 2021). Normative public relations theories stress that community engagement should move away from self-serving attempts to gain local support, in favor of a constructive dialogue that seeks mutual benefits (Bowen et al., 2010; Kent & Taylor, 2002; Palenchar & Heath, 2007). Some examples show that high-risk organizations have in fact sought ways to actively engage with local communities (cf. Lopez-Navarro et al., 2018; Verbeek, 2021). However, high-risk organizations may face skepticism from local community members (Palenchar & Heath, 2007; He et al., 2018).

When chemical companies are confronted with crises, they carry an important responsibility to provide local residents with information that helps minimize physical, psychological and environmental harm (Coombs, 2007). Chemical companies may, however, also have self-serving motives for their crisis communication approach. Pollution crises, for instance, decrease organizations' market value and threaten their legitimacy (Capelle-Blancard & Laguna, 2010). Experimental research has shown that consumer skepticism regarding corporate motives is detrimental to the latter's attitudes (Ham & Kim, 2020; Shim & Yang, 2016) and behaviors (Ham & Kim, 2020) toward a company, as well as to the credibility of organizational claims (Vanhamme & Grobben, 2009).

Given that stakeholder skepticism is likely to be heightened at times when corporate legitimacy is threatened (Ashforth & Gibbs, 1990), we examine resident perspectives on crisis communication in two Belgian pollution crises in 2022. In-depth interviews were conducted with 31 Zwijndrecht community members living near a 3M plant and 16 Hoboken-based residents living near a Umicore plant. This study first reveals if local residents are indeed skeptical of the communication efforts made by chemical companies in crisis. Second, the findings allow us to identify the distinct corporate motives which community members attribute to chemical companies' communication efforts. Finally, we explore the communication characteristics that serve to trigger or strengthen those perceived motives.

### **Literature Review**

The literature review first discusses the importance of community relations, and ways for companies to engage in dialogue with local residents. Next, we review literature about risk communication that emphasizes the value of building legitimacy and trust among local communities. Finally, we argue that legitimacy is threatened during crises which may incite community members to be more suspicious of the motives behind companies' communication efforts.

### **Building community relations**

Community engagement is a subset of corporate social responsibility, defined as 'a dynamic and relational process that facilitates communication, interaction, involvement and exchange between an organization and a community for a range of social and organizational outcomes' (Johnston & Lane, 2018, p. 634). By ensuring that all relevant voices in a local community are heard, value can be created for both the community and the organization (Heath & Palenchar, 2000; Johnston & Lane, 2019). Despite the mutual benefits, research places most emphasis on organizational benefits, such as promoting a favorable impression, increasing public support (Kim et al., 2006), monitoring local concerns (Heath & Palenchar, 2000), and, ultimately, enhancing longterm legitimacy (Bowen et al., 2010).

On account of these competing interests, community engagement strategies can be arranged along a continuum ranging from low to high involvement (Bowen et al., 2010). Low-involvement strategies are restricted to one-sided attempts to promote informed understanding and gain support, whereas high involvement is characterized by a constructive dialogue that increases the quality of social relationships (Palenchar & Heath, 2007). Dialogic-community engagement is considered the normative ideal in public relations theory. This implies that high-risk companies consult communities in matters that impact them, facilitate and encourage conversations, share information and are willing to reconsider their views (Kent & Taylor, 2002). Dialogue is often confused with two-way communication. But whereas two-way communication is ultimately functional and serving organizational goals, genuine dialogue involves a true effort to create mutual understanding (Kent & Lane, 2021).

Higher levels of dialogic community engagement are especially relevant for controversial industries whose operations generate adverse effects (e.g., pollution) (Lopez-Navarro et al., 2018). High-risk companies can turn to a number of dialogic institutional mechanisms that enable citizens to influence environmental risk decisions. Examples are citizen panels (Lopez-Navarro et al., 2018) and public meetings (McComas, 2003; Zoller, 2012). In order to enable dialogue (cf. Kent & Taylor, 2002), such institutional mechanisms should allow for (a) direct participation of communities in decisions, (b) collective decision-making, (c) face-to-face discussion over some period of time and (d) some basis of equality between conversation partners (Fiorino, 1990). The application of these tools for community engagement can differ, however, in the degree to which they foster true dialogue (McComas, 2003; Moberg, 2002; Pressgrove & Besley 2014). A qualitative study among real estate developers, for instance, reveals that many of them consider public meetings an obligation rather than a way of building mutual understanding (Pressgrove & Besley, 2014). Additionally, while citizens acknowledge the potential of public meetings in the context of environmental management, their expectations are low (McComas, 2003). Consequently, even though dialogue and shared decision-making are welcomed for high-risk companies especially, a predominant focus on organizational interests may prevail in practice.

### **Risk communication toward local communities**

Two distinct organizational outcomes have received much attention in risk communication research, namely legitimacy and trust. Legitimacy means that citizens authorize organizations to operate for reward in their community, because they add a certain value that exceeds the costs of their presence (Heath & Lee, 2016). Trust is considered crucial to establishing legitimacy (Heath & Palenchar, 2000; Lopez-Navarro et al., 2018; Verbeek, 2021; Zhang & Muturi, 2021).

Prior research provides recommendations for high-risk companies to build trust and legitimacy among local communities. First, firms should communicate transparently about risks with local communities (He et al., 2018; Zhang & Muturi, 2021). Second, literature on risk communication repeatedly emphasizes the value of consistent communication (He et al., 2018; Zhang & Muturi, 2021). Community relations is a permanent, long-term process (Heath & Palenchar, 2000; Palenchar & Heath, 2007). Third, the importance of genuine dialogue is stressed (Lopez-Navarro et al., 2018). Rather than merely communicating decisions that affect the local community, decisions should be made in collaboration when possible (Heath & Palenchar, 2000; Palenchar & Heath, 2007). Finally, organizations that pose a risk to their environment should be aware that communication alone is not enough. Trust is built through word and deed (Palenchar & Heath, 2007). Actively raising safety and environmental impact standards, for instance, is an important step in improving local residents' perceptions (Heath & Lee, 2016). Still, while efforts can, and should, be made to minimize risks, not all risks can be eliminated (Palenchar & Heath, 2007). Risks are inevitably associated with uncertainty, which complicates decisions regarding when, or what, to communicate in practice (Seeger, 2006).

Despite the complexity associated with risk communication, literature has documented some distinct examples of efforts made by chemical companies to communicate transparently, consistently and dialogically with local communities. In the U.S., the Chemical Manufacturer's Association (CMA) initiated the 'Responsible Care Program' to address public concerns with credibility and openness (Moberg, 2002). As a result, a wide array of measures was introduced to increase public participation and improve the industry's image (e.g., community advisory panels, corporate-sponsored activities). This 'Responsible Care' tradition can be found in other examples as well (Zoller & Tener, 2010). A Spanish petrochemical complex in Tarragona, for instance, organizes citizen panels with company managers and a small group of residents multiple times a year (Lopez-Navarro et al., 2018). In Belgium, petrochemical company BASF maintains a neighbor platform, which allows the discussion of activities and local impact with a group of residents representative of the nearby community (Verbeek, 2021). Despite theoretical recommendations and best practices, however, risk communication researchers have presumed that high-risk organizations may face skepticism from local communities (He et al., 2018).

### Crisis communication toward local communities

When risks develop into crises, skepticism from local communities toward highrisk companies may intensify. During a crisis, the need for legitimation substantially increases, which, in turn, intensifies suspicion among constituents (Ashforth & Gibbs, 1990). Therefore, when high-risk companies are confronted with crises, some people may become even more inclined to be suspicious of the motives behind their communication efforts (Ham & Kim, 2020). When their legitimacy is threatened, organizations can either engage in substantive management, and make real changes to their processes, or defend their legitimacy through mere symbolic efforts (e.g., denial, concealment, justification; Ashforth & Gibbs, 1990).

A case study about the Bhopal chemical release in India illustrates that Union Carbide responded by shifting blame, denying liability, and minimizing long-term health effects (Sen & Egelhoff, 1991). Similarly, the Lanxess Corporation plastics plant in Ohio initially denied that chemical emissions and odors were a problem, and ignored health concerns from neighbors (Zoller, 2012; Zoller & Tener, 2010). However, such symbolic practices are likely to further exacerbate already existing suspicions among stakeholders (Ashforth & Gibbs, 1990). This study will examine the degree to which local residents are in fact skeptical toward chemical companies in crisis, as well as the cues that trigger or intensify their suspicions.

Crisis communication literature has thoroughly analyzed how organizations respond to crises, and which organizational responses are most effective for reputation repair (Claeys & Opgenhaffen, 2021; Coombs, 2007). We know very little, however, about the motives behind organizations' crisis response selection. In-depth interviews with legal advisors and CEOs reveal that organizational crisis teams trade off the legal, financial and reputational consequences of crisis response strategies (Claeys & Opgenhaffen, 2021). That is, legal advisors and CEOs shy away from implementing accommodative strategies to avoid detrimental legal or financial consequences. Whereas organizational reputation is mentioned as a third asset to protect, ethical concerns were hardly ever an outspoken consideration (Claeys & Opgenhaffen, 2021). While there is only limited research on the motives behind organizational crisis communication, even less is known about how stakeholders infer potential corporate motives and why.

Crisis communication research has built extensively on attribution theory to explain how attributions of organizational responsibility determine reputational threat (cf. Coombs, 2007). That same theory has also been adopted in corporate social responsibility (CSR) research to explain how consumers infer motives behind CSR efforts (Forehand & Grier, 2003; Wei & Kim, 2021). These motives can either be firmserving or public-serving, and perceptions regarding those motives ultimately influence consumers' attitudes and behaviors (Forehand & Grier, 2003). Firm-serving or selfserving motives merely benefit the organization's interests, whereas public-serving motives benefit individuals outside the organization as well as the organization itself.

CSR literature argues that consumers use certain cues to infer these hidden corporate motives (Ham & Kim, 2020; Vanhamme & Grobben, 2009). Interestingly, consumers especially suspect company motives when CSR-messages are communicated as a crisis response (Shim & Yang, 2016). In times of crisis, a distinct cue that is used to infer self-serving motives behind CSR efforts, is short-term CSR-involvement (Vanhamme & Grobben, 2009). Consumers' skepticism is also influenced by the explicit claims that companies make regarding their own motives. Organizations that pretend to only seek benefits for society can come across as more hypocritical than organizations that are honest about seeking mutual benefits (Forehand & Grier, 2003; Wei & Kim, 2021).

Despite several experimental studies about consumers' skepticism regarding CSR efforts, more research is needed to explore the skepticism of local residents toward

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high-risk companies in crisis and the communication characteristics that may trigger their suspicions. Case studies about the Love Canal chemical crisis in the U.S. (Simola, 2010) and the Bhopal chemical release in India (Sen & Egelhoff, 1991) indicate that a failure to authentically engage with community members will result in skepticism, disappointment and anger. In addition, other than the general dichotomy between firmserving and public-serving motives, no research has explored which distinct motives stakeholders attribute to organizations' communication efforts. Do community members, for instance, attribute crisis messages to a corporate desire to safeguard legitimacy, or do they consider other motives as well? As such, we want to determine if community members are skeptical of communication efforts made by chemical companies in crisis (RQ1), which distinct motives they attribute to them (RQ2), and what characteristics of the crisis communication serve as cues to deduce those corporate motives (RQ3).

### **Background section**

To examine the research questions, this study explores two Belgian crises that received national media coverage. Both cases involved a local community in the province of Antwerp (i.e., Zwijndrecht, Hoboken) affected by the pollution of a chemical plant (i.e., 3M, Umicore). The companies involved are among the world's 50 largest chemical companies, and produce hazardous substances linked to environmental and health issues (Jessop, 2021).

The province of Antwerp is home to one of Europe's largest ports and the largest integrated chemical cluster (Jephcote & Mah, 2019; Port of Antwerp Bruges, n.d.). Antwerp has always been an important hub in the global oil and chemical industry (Verbeek, 2021), with several global players in the chemical sector being based there (e.g., BASF, INEOS, Lanxess), either with a production unit or logistically (Port of Antwerp Bruges, n.d.). While chemical complexes are usually contested, the Antwerp chemical industry appears to uphold legitimacy among local communities. A recent survey found that local citizens recognize the environmental impact and public health risks associated with the industry's presence (Verbeek, 2021). They predominantly accept the industry, however, because of its perceived socio-economic benefits and long history in Antwerp.

Our qualitative study first explores the community of Zwijndrecht, which is located on Antwerp's Left Bank and borders the southern edge of the petrochemical complex (Verbeek, 2021). In the municipality, a cluster of smaller chemical plants is located, including 3M. The community was faced with revelations about chemical pollution in April 2021. Secondly, this study investigates the community of Hoboken, one of Antwerp's industrialized suburbs situated on the Right Bank (Steyaert, 1992). The Hoboken-based locals have been dealing with a lead pollution surrounding Belgian multinational Umicore since the 1970s. The crisis flared up in 2020 due to a period of drought and COVID-19 lockdowns. In both cases, a chemical substance (perfluorooctanesulfonic acid or lead) ended up in the soil, groundwater and blood of local residents, adversely affecting both the local environment and the people living in it (Cools & Poppelmonde, 2021a; Poppelmonde, 2017).

In response to the crises, both chemical companies adopted vastly different communication approaches. While 3M's strategy at the time of our study was to say as little as possible (Rvs, 2021), Umicore had already taken various communication initiatives (e.g., letters, public meetings) to inform local residents. Appendix A gives a general overview of the crises and the primary communication strategies of both chemical companies. The crisis cases were specifically selected because of their differences (e.g., novelty of the crisis, company's origin, communication approach) and similarities (e.g., multinational chemical companies, highly mediatized crises, Belgian communities), which allowed us to obtain a rich, contextualized understanding of the motives that local residents attribute to companies' crisis communication efforts.

Finally, there is a pattern of inequality in polluting practices around the world (Jephcote & Mah, 2019). Chemical companies are often located in economically depressed areas (Berry, 2003). As such, environmental justice research has revealed that the heaviest burdens of toxic exposure are concentrated in ethnic-minority and deprived communities (Jephcote & Mah, 2019). Therefore, the demographic and socio-economic variables of both communities were also considered (cf. Table one). Whereas the Zwijndrecht community falls within the Flemish average in terms of age, origin, income and educational level, the Hoboken community reveals a different pattern, in that it contains more people of foreign origin, below average incomes, and fewer highly-educated residents.

### **Table one**

|  | Zwijndrecht          |       | Hoboken |           | Flanders  |       |
|--|----------------------|-------|---------|-----------|-----------|-------|
|  | N                    | %     | N       | %         | Ν         | %     |
| Total population (2023)                  | 19,547               |       | 41,352  |           | 6,774,807 |       |
| Men (2023)                               | 9,590                | 49.06 | 20,469  | 49.5      | 3,352,319 | 49.48 |
| Women (2023)                             | 9,957                | 50.94 | 20,883  | 50.5      | 3,422,488 | 50.52 |
| Between 0 and 17 years (2023)            | 4,099                | 20.97 | 10,669  | 25.8      | 1,314,555 | 19.4  |
| Between 18 and 64 years (2023)           | 11,262               | 57.61 | 23,819  | 57.6      | 4,029,829 | 59.48 |
| Older than 65 years (2023)               | 4,186                | 21.42 | 6,864   | 16.6      | 1,430,423 | 21.11 |
| Foreign nationality (2023)               | 1,931                | 9.88  | 23,240  | 56.2      | 714,508   | 10.55 |
| Belgian nationality (2023)               | 17,616               | 90.12 | 18,112  | 43.8      | 6,060,299 | 89.45 |
| Average income per inhabitant (€) (2020) | 21,311 16,178 21,078 |       | 21,078  | 78        |           |       |
| Median income per tax return (€) (2020)  | 29,653               |       | 26,317  |           | 28,286    |       |
| Only primary education or lower (2011)   | 2,547                | 17.49 | 5,239   | 19.6<br>6 | 769,973   | 15.95 |

Demographic and socio-economic data on communities of Zwijndrecht and Hoboken

### COMMUNITY RELATIONS UNDER PRESSURE

| Secondary education (2011)     | 7,987 | 54.84 | 14,521 | 54.4<br>9 | 2,455,796 | 50.87 |
|--------------------------------|-------|-------|--------|-----------|-----------|-------|
| Higher education (2011)        | 3,062 | 21.03 | 4,147  | 15.5<br>6 | 1,231,664 | 25.51 |
| Unknown education level (2011) | 967   | 6.64  | 2,744  | 10.3      | 369,867   | 7.66  |

Source. Statistics Belgium Population Registry, Statistics Belgium Fiscal Income Database, Statistics Belgium Census 2011, Statistics Antwerp

### Method

### **Data collection**

To achieve a purposeful sample, participants were recruited through a combination of random and snowball sampling (Tracy, 2013). In an initial phase, invitation letters were posted in the letterboxes of community members living within close proximity of the companies. The letters were posted four house numbers apart, after a number had been determined through a randomizer application. To ensure an even distribution, no more than ten letters were posted per street. In Zwijndrecht, 200 letters were distributed within a 5km radius, generating nine responses. In Hoboken, 300 letters were posted in three predefined zones (M01, M02 and M03) and 500 letters were distributed within a 3km radius, generating eleven responses. In a second phase, a snowball procedure was implemented. In Zwijndrecht, this resulted in 22 additional responses. In Hoboken, this led to one additional interview. This could be attributable to Umicore's lead pollution being perceived as less urgent. In addition, several Hoboken residents indicated that they did not want to dredge up the crisis again. In a final attempt to boost the response rate in Hoboken, an appeal was published on Twitter and Facebook in two groups based in Hoboken, resulting in three additional interviews.

Saturation can be expected sooner among relatively homogeneous samples, similar in their experiences, compared to more heterogeneous samples (Guest et al., 2006; Hennink et al., 2017). All interviews were conducted with people who live within a 5km radius from the chemical companies involved. Some researchers argue that 12 interviews suffice to reach saturation under these conditions (Guest et al., 2006), whereas others argue that 16 or more are required (Hagaman & Wutich, 2017). We carried out 41 in-depth interviews among 47 respondents, notably 31 residents of Zwijndrecht and 16 of Hoboken.

To determine the interview context (e.g., time, place, medium), the respondents' preferences were duly noted. Seeing as some people expressed a desire to take the interview together, some interviews included multiple participants (i.e., four interviews involving two participants and one involving three). These so-called group interviews differ from focus groups in the sense that they are not 'marked by guided group discussion, question and answer, interactive dialogue, and other activities' (Tracy, 2013, p. 167). Instead, the focus remains on the individual, rather than the group opinion (Gibbs, 2012). Our main priority was to make the interviewees feel at ease and build a rapport quickly (Lindlof & Taylor, 2019).

All interviews took place between February and September 2022. They were conducted either face-to-face (n = 23) or online through Microsoft Teams (n = 17). The study was approved by the Ethical Committee of the authors' university. Before the start of each interview, the respondents read and signed an informed consent form and had an informal conversation with the interviewer in order to build rapport. The average interview lasted 32 minutes, ranging from 12 minutes to 1 hour 44 minutes. Out of the 47 respondents, 23 were male and 24 female. Ages ranged from 29 to 78 (M = 57). An exhaustive overview of the respondents can be found in Table two.

### Table two

| Respondent | Gender | Age | Factory | Distance to | Date       | Duration |
|------------|--------|-----|---------|-------------|------------|----------|
| 1          | Male   | 61  | 3M      | 2.28 km     | 16-02-2022 | 35:29    |
| 2          | Male   | 58  | 3M      | 1.99 km     | 18-02-2022 | 23:01    |
| 3          | Female | 61  | 3M      | 2.11 km     | 18-02-2022 | 16:56    |
| 4          | Male   | 78  | 3M      | 1.29 km     | 18-02-2022 | 34:44    |
| 5          | Female | 75  | 3M      | 1.29 km     | 18-02-2022 | 11:56    |
| 6          | Male   | 63  | 3M      | 1.43 km     | 18-02-2022 | 25:10    |
| 7          | Male   | 72  | 3M      | 1.79 km     | 19-02-2022 | 38:40    |
| 8          | Female | 57  | 3M      | 1.12 km     | 19-02-2022 | 18:54    |
| 9          | Male   | 45  | 3M      | 2.08 km     | 19-02-2022 | 23:45    |
| 10         | Male   | 76  | 3M      | 1.57 km     | 19-02-2022 | 40:16    |
| 11         | Male   | 60  | 3M      | 0.041       | 25.02.2022 | 27.11    |
| 12         | Female | 58  | 3M      | — 2.34 km   | 25-02-2022 | 27:11    |
| 13         | Male   | 68  | 3M      | 3.42 km     | 25-02-2022 | 31:03    |
| 14         | Male   | 65  | 3M      |             |            |          |
| 15         | Female | 61  | 3M      | — 1.55 km   | 25-02-2022 | 37:04    |
| 16         | Male   | 62  | 3M      | 1.53 km     |            |          |
| 17         | Female | 59  | 3M      | 1.52 km     | 25-02-2022 | 26:38    |
| 18         | Female | 56  | 3M      | 1.50 km     | 25-02-2022 | 16:36    |
| 19         | Female | 61  | 3M      | 2.23 km     | 25-02-2022 | 18:33    |
| 20         | Male   | 46  | 3M      | 1.08 km     | 28-02-2022 | 45:37    |
| 21         | Male   | 54  | 3M      | 1.54 km     | 02-03-2022 | 18:35    |
| 22         | Male   | 61  | 3M      | 1.91 km     | 04-03-2022 | 23:38    |
| 23         | Male   | 57  | 3M      | 3.85 km     | 04-03-2022 | 17:04    |
| 24         | Male   | 75  | 3M      | 2.22.1      | 05-03-2022 | 16:42    |
| 25         | Female | 72  | 3M      | — 2.22 km   |            |          |
| 26         | Male   | 65  | 3M      | 2.33 km     | 05-03-2022 | 35:29    |
| 27         | Female | 69  | 3M      | 3.53 km     | 05-03-2022 | 18:14    |
| 28         | Female | 50  | 3M      |             | 08-03-2022 | 26:41    |
| 29         | Male   | 52  | 3M      | — 3.03 km   | 08-03-2022 | 38:44    |
| 30         | Male   | 44  | 3M      | 1.87 km     | 28-03-2022 | 01:08:26 |
| 31         | Female | 40  | 3M      | 1.08 km     | 21-03-2022 | 01:08:26 |
| 32         | Male   | 29  | Umicore | 0.70 km     | 19-08-2022 | 26:11    |
| 33         | Female | 41  | Umicore | 0.64 km     | 19-08-2022 | 21:25    |
| 34         | Female | 54  | Umicore | 0.92 km     | 22-08-2022 | 27:33    |
| 35         | Female | 70  | Umicore | 1.55 km     | 22-08-2022 | 13:20    |
| 36         | Female | 48  | Umicore | 0.31 km     | 24-08-2022 | 24:10    |
| 37         | Female | 45  | Umicore | 0.32 km     | 24-08-2022 | 31:52    |
| 38         | Male   | 44  | Umicore | 2.23 km     | 29-08-2022 | 42:37    |
| 39         | Female | 67  | Umicore | 2.11 km     | 29-08-2022 | 42:04    |
| 40         | Female | 67  | Umicore | 1.91 km     | 20.00.2022 |          |
| 41         | Female | 44  | Umicore | 1.15 km     | 29-08-2022 | 38:59    |

Overview of respondents and interviews

| 42 | Male   | 60 | Umicore | 2.30 km   | 29-08-2022 | 19:22    |
|----|--------|----|---------|-----------|------------|----------|
| 43 | Female | 59 | Umicore | 1.46 km   | 31-08-2022 | 32:40    |
| 44 | Male   | 32 | Umicore | 1.27 km   | 31-08-2022 | 26:46    |
| 45 | Female | 31 | Umicore | 1.27 KIII | 31-08-2022 | 20.40    |
| 46 | Female | 47 | Umicore | 0.46 km   | 14-09-2022 | 19:23    |
| 47 | Female | 50 | Umicore | 0.36 km   | 09-11-2022 | 01:44:20 |

### Data analysis

The interviews were semi-structured and followed a predetermined topic list (Savin-Baden & Major, 2012), which can be found in Appendix B. All of the interviews were recorded using a phone application, before being transcribed verbatim in Dutch. The transcription process generated an average of nine pages per interview, which were reviewed for any identifiable information.

Based on the literature review, we identified several initial themes (e.g., community engagement, dialogue), which provided the structure for the topic list and were also considered during the inductive data coding process (Stevens, 2023). Our goal was to explore how local residents felt about the communication efforts made by the chemical companies in crises, what motives they attributed to them and why. The first author, who conducted and transcribed the interviews, coded the transcripts using NVIVO software (release 1.7) in three phases. During the open coding stage, the participants' responses were read and reviewed multiple times for recurring themes (Savin-Baden & Major, 2012; Tracy, 2013). The process revealed an overall presence of skepticism among most interviewees, three distinct corporate motives that local residents attributed to the chemical companies, as well as a number of distinct concerns regarding their communication efforts. During the second, axial coding stage, the themes were organized, summarized and categorized with a view to discovering underlying links (Tracy, 2013). This allowed us to uncover certain relations between the distinct concerns and perceived motives. We found that the concerns acted as 'motive

cues' which caused local residents to infer self-serving motives behind the communication efforts. Finally, selective coding was used to integrate these emergent categories of data into a coding tree (Savin-Baden & Major, 2012).

Ultimately, the key codes identified were 'perceived motives' (i.e., 'legitimacy,' 'financial motive,' 'legal strategy') and 'motive cues' (i.e., 'lack of information,' 'lack of clarity,' 'limited target audience,' 'lack of dialogue,' 'lack of community relations'). Throughout the data coding process, the findings were consistently coordinated with the co-authors. Finally, quotes were selected and translated into English.

### Findings

The findings reveal that most local residents were highly skeptical of the chemical companies in crisis (RQ1). They interpreted the overall communication approach of both companies as strategic and self-serving. More specifically, we discuss three self-serving motives which local residents attributed to the communication efforts, namely legitimacy, legal and financial motives (RQ3). Finally, we identify five distinct cues that local residents used to infer firm-serving motives behind the organizations' approach (RQ3). While some of those cues contributed to a more general sense of mistrust, others were directly connected with one or more distinct corporate motives. More specifically, a lack of (timely) information about the crisis, a lack of comprehensibility in the

communication, and a narrow stakeholder perspective were explicitly associated with legal and financial motives. Our findings elaborate on these aspects in detail.

# Skepticism toward communication efforts made by chemical companies responding to pollution crises

Even though interviewees held differing perceptions of the severity and degree of personal damage caused by both chemical pollutions, most local citizens were united in their anger at the way the companies had handled their crisis communication. They believed that the organizations placed their own interests above those of the community. 3M and Umicore were perceived by most local residents as 'lax,' 'arrogant' and even 'deliberately criminal.' One resident living near the 3M factory explained: "3M is a world leader. They probably consider this to be a 'local issue' of which they have about 50 globally. I believe it really doesn't matter to them" (male, 61). In addition, the interviewees perceived an overall lack of sincerity in the communication efforts. Multiple respondents believed that the crisis messages were carefully formulated by public relations specialists. This led to an overall sense of distrust and a belief that everything would remain 'under the radar,' as expressed by a Hoboken resident (female, 54). Generally, the residents felt that the communication efforts were insincere and selfserving above all else.

### Self-serving motives attributed by local residents

Throughout the interviews, we identified three distinct self-serving motives that were attributed to the communication approach of 3M and Umicore. These included (1) legitimacy, (2) financial and (3) legal motives.

First, interviewees discussed legitimacy as a probable driver of the chemical companies' communication. More specifically, Umicore's communication toward local

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residents emphasized positive company evolutions (i.e., creation of local jobs, roads, etc.), which seemed to detract from the problems created by the company's presence, as is illustrated by a local inhabitant living close to Umicore:

In the letters, they mainly communicate about the fact that they are cleaning the streets, organizing another community meeting, putting in effort, updating their machinery, etc. Basically, they provide communication about how the company evolves. But none of it concerns the core of the issue. (female, 54)

Interviewees, therefore, felt like the companies solely tried to appease the residents to retain their 'social license to operate' (Johnston & Lane, 2019).

A second self-serving motive that was attributed to the companies' communication efforts was the pursuit of profit. According to the interviewees, both 3M and Umicore shied away from communicating transparently to preserve their revenue and market share. The chemical companies seemed to safeguard their production processes in order to 'keep the profit machine churning,' as a resident living near 3M explained (male, 46). Hence, some respondents believed that the companies communicated not with local residents, but with their shareholders, in mind. Even though the respondents showed understanding of the value of money for commercial companies, they were angered by the fact that it prevailed over everything else. 'They have to show that they are a company with a specific goal, namely making profit, surviving and producing. However, that company exists within a social reality' (male, 61).

Finally and most pronounced throughout the interviews, the crisis communication of both 3M and Umicore seemed driven by an underlying legal strategy.

The interviewees believed that the companies' primary concern was to avoid compensation and damage claims. Since admitting guilt could result in lawsuits, the multinationals seemed to deflect statements that infer accountability. As a 46-year-old, male resident living near 3M described:

If they were to accept any responsibility, even the slightest, they would set a global precedent. So far, they haven't had one lawsuit that led to a ruling. Their goal is to stretch the lawsuit in time as much as possible, to financially devastate their opponent. Then, they will settle. That way, the lawsuits are "resolved."

Whereas 3M was saying as little as possible at the time of our study, Umicore was considered to be telling only a partial truth. Generally, their approaches were not well received by local residents. As a resident living near 3M explained: 'Not communicating might be the best way to avoid liability, but it is the worst way to win back the trust of the people you victimized' (male, 44).

### Communication characteristics that fueled perceptions of self-interest

The perception that 3M and Umicore were driven by self-interest, rather than a genuine desire to address the crises in a mutually beneficial and dialogic way (cf. Bowen et al., 2010; Kent & Taylor, 2002) was strengthened by five distinct characteristics of their crisis communication efforts: (1) a lack of timely and consistent process information, (2) missed opportunities to communicate in a comprehensible manner, (3) a narrow stakeholder view, (4) a lack of true dialogue during encounters with the company, and finally (5) a lack of long-term involvement through community engagement before the pollution crises. These communication characteristics served as

'motive cues,' which local residents used to infer self-serving motives or confirm their beliefs (cf. Ham & Kim, 2020; Vanhamme & Grobben, 2009).

### Lack of information

A high level of involvement in community relations implies that organizations consult local residents in good time about issues that affect them (cf. Bowen et al., 2010). However, at the time of the interviews, over six months after the PFOS crisis was revealed in Belgian media, 3M had not made a single effort to communicate with the local residents directly. As one interviewee stated: 'That was my expectation as a Zwijndrecht resident. Since we live pretty close to the factory, that we would have received at least some form of communication, either written or verbally. Anything really' (female, 57). The complete lack of communication toward local residents served as a particularly strong cue for inferring firm-serving motives in Zwijndrecht.

The perception of participants living near Umicore differed depending on the location of their residence. Those living in one of the predefined zones (M01 – M02 – M03) closest to the factory did receive direct communication, whereas those living further away did not. The lack of communication toward community members living further away was seen as 'saddening,' 'regrettable' and 'disappointing.' Even some respondents who did receive direct communication considered it 'insufficient.' A failure to proactively fulfill distinct information needs heightened skepticism among the communities.

Whereas the importance of crisis information for minimizing physical and psychological harm is not new (cf. Coombs, 2007), our findings elaborate on the distinct information needs of local residents. First, the interviewees expressed a desire for practical information about what they could and could not do. As a participant near Umicore described: 'Objective information about the possible effects it has on our health. What should we watch out for? What can we do ourselves? Wash our hands regularly, those kinds of things?' (female, 59).

Secondly, the respondents also explicitly wanted more transparency about the organizations' actions and inactions throughout the crisis. They suggested that more consistent process communication would have reflected a commitment to the process of dialogue and helped alleviate stress for inhabitants. Finally, in line with the emphasis on empathic concern in public relations (cf. Kent & Taylor, 2002) and crisis communication literature (cf. Coombs, 2007), participants also expressed a need for more empathy and genuine commitment toward the local community overall.

They say that there is little clarity about the potential consequences. All that may be true, but they still have to communicate in a more involved way with the people that are being confronted with a great deal of insecurity. Communicating with a little more empathy wouldn't be so terrible, right? (male, 58)

The organizations' inability to meet residents' information needs timely and consistently strengthened the perception that both companies did not prioritize community concerns. Moreover, these information deficiencies were seen as strong indicators that the organizations were focused on evading responsibility to steer clear from financial and legal consequences.

### Lack of clarity

Next, interviewees stressed the importance of comprehensibility. Several respondents indicated that the crisis communication was complicated by jargon and technical language. According to some residents, the communication was intentionally

drafted in a 'diplomatic and vague' way to be legally proof. One respondent living near Umicore stated:

You cannot expect citizens to read the reports of the Flemish Environment Agency and understand everything. That's just crazy. People will not comprehend that a cancer is "statistically not insignificant." By formulating the reports in this way, there is every likelihood that people will not comprehend. (male, 32)

Residents from both municipalities emphasized the diversity of their local community, which organizations have to consider if they genuinely want to bring their message across to all community members. The population consists of multiple generations and different nationalities with varying levels of language proficiency and digital aptitude. Organizations that want to overcome skepticism and show that they have both their own and the community's interests at heart, should consider providing information through various channels and languages to reach residents as effectively as possible.

### Narrow stakeholder perspective

Throughout the interviews, the local residents pointed out that the companies' target audience was too restricted in terms of location and duration. Umicore, for example, limited its communication efforts only to those inhabitants who live within a 1km radius around the plant. Residents living further away were confused as to why their neighbors did fall within a danger zone, whereas 100 meters further, they did not. This approach fueled Hoboken residents' suspicion regarding ulterior financial motives. Several community members believed that Umicore avoided communicating in a wider radius to 'let sleeping dogs lie' and prevent further costs.

Moreover, respondents who resided close to Umicore in the past stopped receiving information once they moved away. Some of those participants hoped that communication would have continued after they left. One 41-year-old female interviewee, who sold her house to Umicore and moved away, elaborated:

This might sound silly, but I'd like to know when my house is being demolished. I wouldn't necessarily want to be present when it happens, but I'd like to just know. (...) Or they could maybe inform about the health of our children? Especially those who suffered a peak in their blood levels. That would seem a humane thing to do, at least...

### Lack of genuine dialogue during interactions

Interviewees' descriptions of distinct interactions, with Umicore in particular, illustrate the difference between two-way communication and authentic dialogue (Kent & Lane, 2021), as well as between low and high involvement strategies for community engagement (Bowen et al., 2010). While Umicore did employ communication channels that enable interaction (e.g., public meetings), local residents perceived them to be used in a non-dialogic manner. Multiple interviewees complained, for instance, that the threshold to ask questions during information meetings was too high and that pertinent questions were systematically dismissed. Moreover, the communication during these meetings was considered unidirectional by attendees. One of the residents living near the Umicore factory described her attendance as follows:

Two or three people from Umicore did the talking, while more than 150 people were listening. You sort of disappear into the crowd. Since we're not

necessarily the most outspoken people, we heard a lot of information, but we weren't really seen. (female, 41)

Furthermore, local residents criticized the low accessibility of the information meetings. Several residents stated that the meetings were organized during working hours or at impossible to reach locations. Some participants claimed that they only received the invitation mere hours before the meeting was planned. The information meetings were, therefore, interpreted as insincere attempts to appease the residents: "It is hard to fault their way of communicating. (...) They will always be able to say: 'We made leaflets. We organized information meetings. Everyone was invited, right?' But after a while, I started to see through it" (female, 50). Members from both communities interpreted the lack of dialogue as a sign that the organizations were not genuinely interested in them, and solely focused on their own interests.

Several participants who lived in Umicore's close vicinity did report more personal and ostensibly dialogic communication regarding the expropriations. However, Umicore's aim was to persuade the local residents closest to the factory to sell their houses and move away (Bernaerts, 2020, September 3). After the sale was concluded, the apparent dialogue halted again. This left some of the Hoboken residents ultimately feeling 'paid off' or 'abandoned': 'Now that you've moved, good riddance!' (female, 41). The seemingly abrupt ending of dialogue led to disappointment among residents and fueled the perception that Umicore's intention had been merely self-serving.

One notable exception was a 45-year old female inhabitant living in close proximity of the Umicore factory. She was convinced that Umicore could not have handled its communication better. Important to note is that she was one of the last zone M01 residents and very reluctant to leave. Therefore, it was in Umicore's best interest to pay additional attention to this resident, in the hopes of transforming that area into a green zone.

### Lack of investment in community relations overall

Interestingly, the detrimental impressions among residents from both communities seemed to stem from the time before the pollution crises were revealed. Most residents claimed to never have received communication from their local plants in the past. One respondent living near 3M expressed his dissatisfaction:

If you've been working next to a residential community for 50 years, then surely it makes sense that you, at least, make an effort to talk to those people? It's not because you're a multinational that all local ties suddenly disappear! There's nothing human about their way of communicating or operating. (male, 44)

While some respondents did remember receiving direct communication from their local plant in the past, these efforts were perceived as a moral obligation rather than a genuine attempt to connect. As such, prior community engagement efforts were classified as low-involvement, one-sided attempts to safeguard legitimacy (cf. Bowen et al., 2010). One interviewee (male, 76) described his past experience with 3M as a 'standardized practice where no actual questions were asked.' Attempts to establish local ties during the crisis, therefore, came across as inauthentic.

Nevertheless, the respondents stressed the value of a consistently open relationship between an organization and its local residents (cf. Zhang & Muturi, 2021). Moreover, many interviewees expressed some level of understanding for the adverse side effects that this industry inevitably has on its surroundings. This aligns with prior research indicating that communities near the Port of Antwerp may be rather accepting of the industry (Verbeek, 2021). Our findings add, however, that local residents expect companies to be straightforward about possible risks and feel skeptical when presented with a one-sided 'good-news show.' As such, pretending to have only public-serving motives at heart might ultimately result in more skepticism than being transparent about mutual benefits (cf. Forehand & Grier, 2003; Wei & Kim, 2021).

#### Discussion

Community engagement literature advises high-risk organizations to engage in authentic dialogue with local residents to establish long-term, mutually beneficial relationships (Bowen et al., 2010; Palenchar & Heath, 2007). At the same time, highrisk organizations are warned by risk communication research that local communities may experience an overall sense of distrust and skepticism toward them (He et al., 2018; Palenchar & Heath, 2007). Such skepticism could lead community members to attribute corporate communication efforts to firm-serving rather than public-serving motives (Forehand & Grier, 2003). Our study, therefore, explores the attribution of corporate motives in the context of community relations. We focus on pollution crises affecting Belgian communities specifically, because stakeholders are most likely to infer corporate motives during organizational crises (Ashforth & Gibbs, 1990; Ham & Kim, 2020).

The findings from our qualitative study first show that local residents were highly skeptical of crisis communication efforts made by chemical companies. This is noteworthy for two reasons. First, the study was carried out in the Port of Antwerp in Belgium, where communities are generally accepting of the industry because of its perceived socio-economic benefits and long history (Verbeek, 2021). Yet, considering recent signs that 'the acceptance of the petrochemical industry might be changing slowly' (Verbeek, 2021, p. 1415), our findings should serve as a wake-up call to companies that there may be limits to their 'social license to operate.' Second, despite the vastly different communication approaches from 3M (i.e., defensive) and Umicore (i.e., more accommodating), local residents predominantly perceived the communication efforts made by both companies as insincere. The findings regarding 3M corroborate assumptions from prior research regarding the Bhopal crisis (Sen & Egelhoff, 1991) and Love Canal crisis (Simola, 2010), in which communication strategies characterized by denial and delay inflict anger and skepticism on local residents. Our study adds, however, that even chemical companies that acknowledge local concerns (i.e., Umicore) can face a great deal of skepticism. Quantitative research should examine to what degree skepticism toward chemical companies intensifies in times of crisis, and how - or perhaps even if - communication can ever truly overcome the skepticism of affected communities.

Next, the interviews corroborate findings from consumer-centered CSR research (cf. Forehand & Grier, 2003; Wei & Kim, 2021) and extend them to a community engagement context. More specifically, the findings indicate that skeptical community members attribute crisis communication efforts to firm-serving motives. Our study adds to prior research by identifying three specific types of firm-serving motives, namely legitimacy, financial and legal motives. Prior literature confirms that legitimacy is indeed a key outcome for community engagement and risk communication (Bowen et al., 2010; Heath & Lee, 2016; Lopez-Navarro et al., 2018; Zhang & Muturi, 2021). Responsible corporate neighbors must ensure, however, that community relations are not solely seeking local support (Bowen et al., 2010; Lopez-Navarro et al., 2018; Verbeek, 2021). Our findings add that community members also infer legal and financial motives in a crisis context. In fact, the legal motive was most inferred by local residents. Decisions from chemical companies to delay communication or to provide limited information were attributed to a corporate desire to avoid legal liability. Crisis communication research has found that crisis teams indeed weigh the legal and financial implications of their crisis response (Claeys & Opgenhaffen, 2021). This study shows that such self-serving intentions will not go unnoticed by stakeholders. Interestingly, many community members understand and accept that organizations have legal and financial implications to consider. They do not accept, however, when these motives are prioritized above all else.

Finally, the interviews reveal five distinct communication characteristics which fuel local residents' skepticism, and serve as 'motive cues' (cf. Ham & Kim, 2020; Vanhamme & Grobben, 2009). These cues caused local residents to infer self-serving motives behind the corporate communication efforts. While all cues contributed to an overall sense of distrust, some were directly associated with distinct corporate motives.

First, a delay in communication, a lack of practical information and a lack of consistent process communication can all point toward the absence of genuine concern for local residents. Second, community members expect their corporate neighbors to make an effort to translate complex information for a lay audience. Third, residents' skepticism regarding corporate motives can also be activated by a narrow stakeholder perspective. Providing information only to those residents who (still) live close to the facilities, creates the impression that organizations are only concerned with those people who serve a distinct purpose. Fourth, the findings reveal that the mere use of dialogic communication channels does not suffice when striving for mutual understanding. The channels should be used in a way that facilitates the participation of all relevant voices. Finally, local residents were especially skeptical of communication efforts made by companies who failed to establish long-term community relations prior to the crisis. In the same way that short-term CSR-involvement can serve as a cue for consumers to infer self-serving motives during crises (Vanhamme & Grobben, 2009), a lack of prior community engagement appears to fuel skepticism among local residents as well.

Our findings suggest that these motive cues are all implicitly or explicitly connected to a heightened sense of skepticism and/or the attribution of distinct selfserving motives. Future quantitative research should investigate the causal relations between motive cues on the one hand, and distinct corporate motives (i.e., legitimacy, legal, financial) that local residents attribute to chemical companies' crisis communication efforts, on the other.

### **Practical implications**

Organizations are encouraged to minimize skepticism among local communities through community engagement, both under routine circumstances and during crises. Such community engagement implies the search for mutual benefits. First, when chemical companies are faced with crises that have (potential) repercussions for the nearby community, firm-serving motives should not automatically eclipse publicserving motives. Many organizations have a tendency to prioritize avoiding short-term losses (e.g., through delay and denial) over striving for long-term gains (e.g., through proactive communication) during ongoing crises (cf. Claeys & Coombs, 2020). One way to overcome such a tendency is to develop crisis teams and plans that balance competing interests during the pre-crisis stage. Second, high-risk organizations should not pretend to prioritize public interests over firm interests. Rather, they are advised to be transparent about mutual benefits. Our findings show that local residents understand that chemical companies have a variety of stakes to consider. They are less tolerant, however, of (a) deception about these corporate motives and (b) companies that prioritize their own interests above everything else.

For long-term community engagement, chemical companies can turn to a number of dialogic tools, such as neighbor platforms and citizen panels (cf. Fiorino, 1990; Lopez-Navarro et al., 2018; Verbeek, 2021). The mere use of such tools, however, is not enough. Organizations should apply them in a dialogic manner (cf. McComas, 2003; Moberg, 2002; Pressgrove & Besley, 2014). When organizations in crisis turn to community meetings, for instance, they should organize these at times and in places that are easily accessible and invite people timely. They should also consider being flexible in terms of meeting format (Pressgrove & Besley, 2014). Arrange meetings in smaller groups to lower the threshold for people to ask questions, or organize tours to the facilities to show transparency. A failure to invest in long-term community engagement can adversely turn into a 'motive cue' for local residents to attribute self-serving motives to organizational crisis communication efforts. The use of dialogic tools for community engagement in one-sided settings (e.g., public meetings where a few organizational representatives address a large group of residents) can equally signal that the company is not genuinely interested in addressing local concerns, but rather wants to uphold legitimacy.

During an ongoing pollution crisis, a number of additional communication pitfalls should be avoided, which can serve as 'motive cues' and trigger suspicion regarding self-interest. Delaying direct communication with affected community members, as well as failing to continue communication throughout the crisis life cycle are telltale signs that financial and legal motives prevail. In addition, formulating messages in unintelligible ways (e.g., technical language, jargon) can further fuel a perception of self-interest. It could create the impression that companies want to avoid financial or legal consequences by not writing 'a sentence too much or too little' (Claeys & Opgenhaffen, 2021, p. 8). However, when crisis messages are written with legal repercussions in mind, rather than the intended audience, they can backfire and heighten skepticism.

Finally, organizations are advised to consider all target audiences that may have information needs during a crisis. When communication efforts are limited solely to residents that serve a strategic purpose, local community members might question the company's motives, regardless of whether they received communication.

### Limitations and suggestions for further research

This explorative study about community relations in times of crisis has limitations that provide scope for further research. First, this study focused on two pollution crises from an American (3M) and a Belgian (Umicore) chemical company in Belgium. Future studies should examine different types of crises in different parts of the world as well. Union Carbide's eagerness to blame their Indian subsidiary for the Bhopal crisis, for example, was attributed to its lack of concern for a subsidiary in a developing country (Sen & Egelhoff, 1991). Second, the pool of respondents displayed certain limitations. There were, for example, few young respondents and the sample also lacked diversity in terms of ethnicity. In response to the invitations that were dispersed around Umicore, we received a phone call from someone who did not speak Dutch. The person in question assumed that the invitation letter concerned a blood test. This illustrates how communication may fail to reach all residents adequately, and the same may hold for our study.

Third, the interviews were conducted in the summer and fall of 2022. However, an organization's crisis communication can evolve over the course of the crisis life cycle. 3M, for instance, has since organized public meetings for local residents. Therefore, participants' opinions may have changed over time. Fourth and finally, ongoing crisis situations may prove to be so-called 'negative spaces' in which true dialogue is hard, if not impossible, due to a lack of trust, relationship or commitment (Kent & Lane, 2021).

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