

**The Preparedness of Local Authorities for Crisis  
Communication with People who have Foreign  
Backgrounds – The Case of Sweden\***

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*One of the most important aspects of crisis communication is that of reaching the target population in a severe and often chaotic situation. Therefore, crisis communication has to be customized not only to the situation but also to the population. The aim of this study is hence to investigate the preparedness of Swedish municipalities to communicate with people who have foreign backgrounds at times of crisis. A sample of 55% (n=160) of all Swedish municipalities were questioned regarding whether their crisis communication plans are adapted to this population segment and whether any preparedness measures have been taken. The results show that Swedish municipalities do not consider people with foreign backgrounds in their crisis communication to any great extent. However, the studied municipalities can be categorized as Active, Intermediary or Passive, and one important difference between the three groups is whether they have previous experience of crises where people with foreign backgrounds have been involved.*

**Key words:** Crisis communication, crisis planning, emergency planning, ethnic minorities, local authorities

Crisis communication in multicultural societies is a neglected field of research generally (Falkheimer and Heide 2006), and particularly in relation to municipalities' crisis management (Lindell

and Perry 2004). Adjustment to a multicultural society tends in both research and practice to focus on minority groups rather than on the majority population and established institutions (SOU 2005: 41), and the field of crisis communication is no exception. There are, for example, a number of studies that show how the attitudes and behavior of ethnic minorities in Western societies diverge from the (white) majority (e.g. Bolin 1986; Enander and Johansson 2002; Flynn, Slovic and Mertz 1994; Satterfield, Mertz and Slovic 2004), but considerably fewer that study the role and practices of the authorities concerned. The existing literature indicates, however, that authorities and other crisis management organizations rarely customize their crisis management and communication to a multicultural population and minorities (Fothergill, Maestes and Darlington 1999). Studies in Sweden also show that standardized crisis communication that does not take individual, group, and geographical differences into account is ineffective (Wester-Herber 2004, see McQuail 2005 for a review of the difference in effectiveness between mass and custom communication). Moreover, standardized communication is likely to better match the need for information among the majority population compared with that of minority groups such as ethnic minorities and immigrants. Considering the sometimes exposed position held by individuals with foreign backgrounds, it is crucial that crisis communication is effective and reaches not only the majority of the population but also those who are most vulnerable (Rygel, O'Sullivan and Yarnal 2006).

One crucial point in crisis communication concerns reaching the inhabitants of a risk area. This is often the task of the local authority, and in Sweden we have seen a development toward municipalities having increased responsibility for dealing with crises, as well as crisis communication (SFS 2006: 544). Today, municipalities are responsible for all the people within their regional territory in case of a crisis. However, many crisis communication tools and practices are based on standardized models that are easy to assess but not necessarily adapted to a diverse population. These standardized practices are commonly based on an assumption that the population can be considered as homogeneous (Olofsson 2007). Foreign background per se does not explain an individual's risk exposure but it

might be correlated with factors that do. For example, these might include residential area, place of work, socioeconomic status, language skills, usage of communication channels, and trust in communication sources (Andersson 2005; Fothergill and Peek 2004; Lindell and Perry 2004). In Sweden—with its history of an equalizing welfare model, social democracy, and limited immigration—there is a tendency to seek not only equality but also similarity. Moreover, public policy has been dominated by the belief that the population is uniform and that no racism and ethnical conflicts exist (Sawyer 2000; Johansson 1999). Over time, Swedish society has become more diverse as immigration has increased and a general individualisation process has evolved; the acceptance of variation in looks, attitudes and behavior has increased. The question is whether this change includes municipalities' crisis communication.

The aim of this study is to examine:

- whether Swedish municipalities consider people with foreign backgrounds in their crisis communication,
- whether it is possible to identify different groups of municipalities with respect to this, and
- what characterizes these different groups in terms of contextual factors.

The paper comprises five parts, this introduction being the first. The second part presents earlier research in the field of crisis communication in general and in multicultural societies in particular, and ends with a conceptual model of multi-ethnic crisis communication planning. The third part describes the data, and the fourth part analyses to which degree Swedish municipalities are prepared to communicate to people with foreign backgrounds in crisis situations. In the fifth and concluding part of the paper, the empirical results are discussed and some tentative conclusions are drawn.

### **Earlier Research and Conceptual Model**

Research on crisis<sup>1</sup> is often associated with organizational rather than societal crisis management, and both the event itself and the af-

termath of the crisis are frequently in focus. By contrast, the pre-crisis phase and preparedness measures are more commonly associated with risk research. Like crisis management, crisis communication is often associated with organizational management of crises and public relations in the aftermath of a crisis (Falkheimer and Heide 2006; Fearn-Banks 2002), while risk communication describes activities aimed to prevent and/or reduce the consequences of a crisis at the individual or societal level (Renn and Ruhrmann 2000, for an overview, see Gutteling and Wiegman 1996). Recently, the need for studying the pre-crisis phase has been addressed and it is argued that to be able to consider new situations including population segments ignored earlier, such as ethnic minorities, organizational preparedness for crisis is vital (Falkheimer and Heide 2006). In this study, preparedness during the pre-crisis phase is therefore the focus.

### **Crisis Communication in Multicultural Societies**

The field of intercultural communication teaches us that people with different cultures might have difficulty understanding each other, not only due to language problems but also because of other context-dependent cues and norms (Gudykunst 2004). Theoretical dimensions such as individualism–collectivism and high- versus low-context communication are used to describe these differences, whereas other socio-cultural factors such as religion, ethnicity, experience and gender are not as common in crisis communication research (Frew 2005; Wester-Herber 2004). Much of the empirical work has either been done at the national level (i.e., comparative studies classifying countries) or at the interpersonal level (Gudykunst 2004). However, it is equally important to study intercultural crisis communication within the frame of nation-states and local communities, where much of the crisis communication takes place in practice. Needless to say, the success of crisis communication is dependent on the target population's opportunity, ability and willingness to receive and adapt to crisis messages. Unfortunately many crisis communicators still use a generic "one message fits all" strategy (Frew 2004), despite research indicating that messages adapted to the target audience are more successful (McQuail 2005). Organizations wishing to adapt their crisis communication to

a multicultural population require knowledge about the people they want to reach, and today most researchers agree that the best way to achieve this is two-way communication (Falkeimer and Heide 2006; Gudykunst 2004; Guarabardhi, Gutteling and Kuttschreuter 2005; McQuail 2005).

Lindell and Perry's (2004) book *Communicating Environmental Risk in Multiethnic Communities* is a rich source of cross-cultural crisis communication studies. Based on earlier research, mainly from the USA, they highlight a number of factors related to ethnic minorities that play a significant role in crisis communication. On the one hand, they refer to socio-cultural factors such as household structure, family roles, and values. On the other hand, they refer to socio-economic factors such as income, education, housing quality and location, and access to community resources. Furthermore, their earlier work shows that minority groups' assessments of warning source credibility differs from that of majority citizens (Lindell and Perry 1992), and that ethnic minorities are less likely than the majority to be aware of and apply for governmental assistance after a crisis (Lindell and Perry 2004). It has also been shown that minorities are less likely to be part of local networks through which crisis information flows. This may also be an indication that governmental authorities fail to adapt their practices to these groups. Hence, what is typical of this research—as in much of the research into the role of ethnic and minority groups—is the focus on group characteristics and behavior rather than the practices of organizations and systems (Gudykunst 2004).

### **Organizational Crisis Communication**

As we have seen, the focus of earlier research about crisis communication in multicultural societies has often been at the individual level, i.e., how people belonging to ethnic minorities perceive risks, how they react and act in crises, and their coping strategies and/or vulnerability after crises (Flynn et al. 1994; Fothergill et al. 1999; Johnson, Bowker and Cordell 2004; Perry and Lindell 1991; Satterfield et al. 2004; Vaughan and Nordenstam 1991), while little has been done at the organizational level. This does not mean that there is little research on organizational communication, intercultural

communication, or on authorities' crisis communication in general. Rather, the area of crisis communication between authorities and ethnic minorities or people with foreign backgrounds is something of a blind spot (Falkheimer and Heide 2006). Hence, organizational crisis communication, particularly as part of organizations' public relations, is not a new field. As in the field of risk communication, there is a trend from one-way information about risks and crises to two-way, dialogue-focused, communication (Lofstedt 2003). There are even studies indicating that this is not only a change in theory, but also in practice (Gouldson, Lidskog and Wester-Herber 2004). This development is partly based on an acceptance of lay, or subjective, knowledge as being valuable, and not only on expert, or objective, knowledge at the opposite end of the spectrum. However, these studies seldom take different segments of the public into account.

Over time, crisis communication—including authorities' responsibilities associated with it—has increased in Sweden and many other Western countries, as several severe crises such as Chernobyl, the Southeast Asian tsunami, and the Hurricane Katrina have changed the view of crisis management ('t Hart, Heyse and Boin 2001; Sundelius, Stern and Bynander 2001). Consequently, a key task for authorities and crisis managers is to establish institutional procedures and high preparedness for coping with unforeseeable future crises (McConnell and Drennan 2006, p. 59; see also Boin et al. 2005). McConnell and Drennan (2006, p. 61) suggest a typology of organizations' preparedness for crisis, based on five indicators:

- 1) Importance of contingency planning on the organizational agenda
- 2) Attitude to threats
- 3) Extent of contingency plans
- 4) Extent of active readiness through trials and simulation
- 5) Organizational psyche

From these indicators, McConnell and Drennan (2006) create three categories of organizations: 1) low preparedness (dismissive of threats, focus on routine, no plans, ego-centered), 2) medium/mixed preparedness (fairly engaged, prepared for some threats) and

3) high preparedness (crisis preparedness part of organizational goals, detailed plans, regular crisis training, open attitude). Inspired by Boin and Lagadec (2000), they want to show that high preparedness for coping with contingencies involves not only formal plans but the embedding of crisis management in both formal and informal practices.

To achieve high preparedness and embedded crisis management, organizational learning plays an important role or, rather, learning is a condition for the organization to adapt its crisis communication to new circumstances (Sundelius et al. 2001). However, the capability of organizations to adjust to new policies is limited, and some even claim that collective learning is not possible in complex organizations. Instead it is during and after a crisis that much of the learning occurs (Sundelius et al. 2001; Gouldson et al. 2004; Kim 1998; Tanifuji 2000). Tanifuji (2000), for example, shows how Japanese authorities, although aware of a variety of crises, are best prepared for crises with which they have had earlier experience. This indicates that crisis management, as well as crisis communication, is context dependent; the organization's preparedness depends on earlier decisions and experiences related to crises (Sundelius et al. 2001). A classic in organizational learning studies, Argyris and Schön's (1978) model of single and double loop learning also teaches us that organizations need to rethink organizational norms and policies to adapt to new situations. They write:

When the error detected and corrected permits the organization to carry on its present policies or achieve its present objectives, then that error-and-correction process is *single-loop* learning. (...) *Double-loop* learning occurs when error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies and objectives. (Argyris and Schön 1978: 2-3)

Although it is important not to overstress the difference between the two modes of learning, the latter kind seems to be desirable in dynamic and changing environments. Hence, organizational crisis communication in multicultural societies must move forward from

the national cultural determinism that has dominated intercultural communication so far, and begin to include the environment in which organizations exists.

### Conceptual Model

A typology has been developed to categorise local authorities according to their preparedness to communicate with people who have foreign backgrounds at times of crises (see Table 1). As in McConnell and Drennan's (2006, p. 61) model, the focus is on the pre-crisis phase and contingency planning rather than organizational behavior during or after a crisis. However, the typology also includes a contextualised perspective of intercultural communication and the role of organizational learning processes during crises (Sundelius et al. 2001, p. 40ff.; Falkheimer and Heide 2006).

**Table 1. Typology of Swedish municipalities based on their preparedness to communicate in multicultural societies (F. B. stands for "foreign backgrounds").**

	Active	Intermediary	Passive
<i>Indicator factors</i>			
1. Extent to which contingency plans consider people with F.B.	High	Medium	Low
2. Degree of adjustment of crisis communication in practice	High	Medium	Low
3. Extent of preparedness measures taken	High	Medium	Low
<i>Contextual factors</i>			
4. Earlier experiences	Many	Medium	Few
5. Demographic characteristics	Large population, high proportion of people with F. B.	Medium population, medium prop. of people with F. B.	Small population, low proportion of people with F. B.

The first part of the model, the *indicator factors*, describes the extent to which a municipality takes people with foreign backgrounds into account in their crisis communication strategies and plans, in practice, and whether they have taken some preparedness measures in this direction. The indicators correspond to McConnell and Drennan's Indicators 3 and 4. Their other three indicators—*Importance on the organizational agenda* (Indicator 1), *Attitude to threats* (Indicator 2), and *Organizational psyche* (Indicator 5)—were excluded

because earlier research indicates Swedish municipalities have not come so far as to include crisis communication with people with foreign backgrounds on their overall organizational agendas or in their organizational psyches (Olofsson 2007). In addition, attitudes to threats is too general to be applicable in this context and, as an empirical investigation, it is more useful to find concrete indicators. Finally, Indicators 1, 2 and 5 require surveys of multiple respondents within each organization, whereas Indicators 3 and 4 require only a single informant. Therefore an indicator was included that measured the extent to which the organizations have done something in practice. From these indicators, it should be possible to categorize the municipalities into Active, Intermediary or Passive, regarding their preparedness for crisis communication in multicultural societies.

The second part of the model, the *contextual factors*, shows what characterizes the three types of organizations. The reason why an organization is active or passive is often found in contextual factor, and one could say that the character of the environment influences organizational behavior (Stern 1997). It is often the “normal” state of affairs, and how people in the organizations perceive this “normal” state, that influences organizational policy and practices. Extraordinary events like crises can, however, lead to rapid changes, both in the view of the organizational environment and how to cope with it. Case studies are the classic method in studies using a contextual approach, but the current study will use a survey of Swedish municipalities instead, which is a rougher measurement compared with the richness and details of a case study. The strength of a survey is, nevertheless, the fact that it is possible to find general patterns and maybe even to make use of the results with regard to local authorities with similar contexts in other countries than Sweden. The two types of contextual factors included in the model are *experience with crises* (and thereby an opportunity for direct learning) and *demographic variables* (as indicators of a need to adapt crisis communication strategies to a multicultural society). Hence, the assumption is that municipalities with a high proportion of people who have foreign backgrounds are more active than those with a low proportion.

## Method

The data were collected during a structured telephone survey of a sample of Swedish municipalities conducted during March and April 2006. Telephone interviews were chosen because some questions needed to be explained and the interviewees might want to explain their answers. Notes were therefore taken during the interviews and these have been used to confirm some of the quantitative analyses (in the text referred to as 'during the interview ...').

A relatively large sample was chosen to ensure that the selected municipalities are representatives for all municipalities in Sweden. Sweden has 290 municipalities, of which 160 (55%) were selected through a multistage semi-random sample based on a categorization<sup>2</sup> made by The Swedish Association of Local Authorities and Regions (SALAR) (Bengtsson 2004). In addition to the random sample, all "large cities" (>200,000 inhabitants, N = 3) were chosen because these municipalities have a relatively high proportion of people with foreign backgrounds. Since these municipalities are considerably larger in terms of inhabitants, three districts in each city were chosen (these districts are similar to independent municipalities, both in size and organization.). This means the total sample was 160 municipalities but there were 166 interviewees. The response rate was 89 percent; i.e., 148 people were interviewed in 144 municipalities. The stratification strategy, random sampling, and high response rate suggest that the data are representative and reliable.

The crisis communication manager in each selected municipality was interviewed using a short questionnaire with both structured and open questions. The questions were constructed based on results from earlier research (e.g., Enander and Hede 2004) and a pre-study of ten local authorities, including the three large cities.<sup>3</sup> The questionnaire consisted of questions about earlier experiences of crises and the municipality's crisis communication strategy. The questions used in the analyses of this paper are presented in Table 2.

The questions correspond to the constructs in Table 1. To indicate this, each question has a number indicating which construct it measures. For example, the first two questions measure the extent to which a municipality's contingency plan considers people with foreign back

**Table 2. Questions used in the empirical analyses. The numbers indicate which theoretical construct from the conceptual model in Table 1 the question is meant to measure.**

Question	Response alternatives
1 Does the municipality's crisis* communication strategy take people with foreign backgrounds into consideration?	high degree, medium degree, low degree
1. Does the municipality's crisis communication strategy take different languages/ethnicities/religions into consideration?	high degree, medium degree, low degree
2 Do you have crisis communication in any other language than Swedish?	yes, no
2. If yes, which languages do you have information in?	open question
3. Regarding crisis communication, has the municipality taken any preparedness measurement directed towards people with foreign backgrounds?	yes, no
3. If yes, what kind of preparedness measures have you taken?	Open-ended question
4. Has the municipality where you work been struck by any of the following severe events during the last 10 years?	list of nine crises and one open alternative
4. Were any people with foreign backgrounds involved directly or indirectly in any of the crises?	yes, no

\* The nine crises (defined as "extraordinary events") were: 1) Severe traffic accident, 2) snowstorm/storm, 3) accident with dangerous goods/chemicals, 4) large fire, 5) accident with train/plane/boat, 6) social threats/physical violence, 7) floods, 8) the spread of infectious diseases, and 9) terrorism

grounds (see Construct 1 in Table 1). Population statistics from SCB (2006) were added after the interviews. The statistics that have been used are population size, number of people with foreign backgrounds (first generation) in each municipality, and the proportion of people with foreign backgrounds. This information corresponds to the last construct in Table 1, Number 5, demographic characteristics.

## Results

We can now call to mind that the aim of this study is to investigate whether Swedish municipalities generally consider people with foreign backgrounds in their crisis communication, whether it is possible to identify different groups of municipalities with respect to this, and what characterizes these different groups. To accomplish this, descriptive statistics from the interviews will first be presented in this section, followed by explorative cluster analysis in which the first part of the conceptual model is tested. Finally, contextual differences between the groups of municipalities are analyzed.

The reactions to the questions asked during the interview varied considerably among the respondents. A few were well prepared, so

the issue of adapting crisis communication to a diverse population was not new for them. However, a more common reaction was surprise or stress and many admitted that this is not a prioritized issue. During the interviews, many of the respondents stated that everyone is treated the same and that they do not differentiate among people in their crisis communication strategies. The quantitative analysis of their answers shows a similar pattern; relatively few municipalities show high concern for people with foreign backgrounds in their crisis communication (see Table 3). One third of the municipalities state that they take immigrants into consideration in their strategies to a high degree, while 70 percent take these groups into account to a low or neither high nor low degree<sup>4</sup>.

**Table 3. The degree to which Swedish municipalities take people with foreign backgrounds and communication obstacles into consideration in their crisis communication (frequencies in brackets).**

Variable	High degree	Medium degree	Low degree	Don't know
1a. Immigrants	33% (48)	27% (40)	36% (54)	3% (5)
1b. Language	42% (63)	22% (32)	33% (49)	2% (3)
1c. Ethnicity	9% (12)	22% (32)	66% (98)	3% (5)
1d. Religion	7% (10)	22% (32)	68% (100)	3% (5)

The crisis communication manager was also asked whether the municipality takes into account different communication obstacles such as, for example, limited language skills and different reactions based on ethnic or religious traditions and values. As we can see in Table 3, 42 percent of the respondents said that their municipality considers languages other than Swedish to a high degree, while almost one third state that they take little or no such consideration. Less than 10 percent of the municipalities consider different ethnicities and religions to a high degree, which indicates that language is the primary aspect that Swedish municipalities consider.

During the interviews it became clear that the definition of “consideration” or “taking immigrants and crisis communication obstacles into account” varies noticeably among the municipalities. Many organizations use interpreters in emergencies, while some of the in-

interviewees referred to colleagues with foreign backgrounds who can be brought into help or contacts with people working at ethnic or religious organizations. There are also examples of crisis managers who even argue that in the case of an emergency, information will spread regardless of the actions of the municipality because people always know someone who has heard something or read something. Relying on word of mouth in a crisis situation could however mean serious delays in the information process for those who do not speak the language.

Follow-up questions about active measures taken to adapt crisis communication to people with foreign backgrounds were also asked, first about information in languages other than Swedish and then whether the municipality had taken any other kind of preparedness measures. Table 4 shows that 38 percent report having information in other languages (the most common languages are English followed by Arabic and, if we exclude municipalities that only have information in English, 31 percent remain), and 25 percent have taken preparedness measures. The respondents were also asked what kind of preparedness measures they have taken, and the most frequent answer is translation of information, followed by education in individual crisis management, mapping of vulnerable population segments and information activities. This list might seem extensive, but of the respondents stating that they had taken some kind of action, the majority only mentioned one of them. For example, only six respondents said that they offered education. The overall impression is that few municipalities manage crisis communication to people with foreign backgrounds in a formalized, systematic and embedded way, but the remaining question is whether there are structural differences between the municipalities.

### **Three Groups of Municipalities and Their Characteristics**

Cluster analysis was used to test the conceptual model by investigating whether it is possible to group the municipalities according to how much consideration they give to people with foreign backgrounds. “Clustering” municipalities means grouping them according to certain criteria. In this case the criteria used are four of the questions described above (items 1a, 1b, 2a and 3a) measuring

**Table 4. The table shows the percentages of Swedish municipalities that have information in languages other than Swedish and have taken preparedness measures with regard to crisis communication with people who have foreign backgrounds (frequencies in brackets).**

Variable	Yes	No	Don't know
2. Information in languages other than Swedish	38% (57)	55% (82)	3% (4)
3. Preventive crisis communication	25% (37)	70% (102)	5% (8)

the degree to which a municipality takes people with foreign backgrounds and communication obstacles into consideration in their crisis communication. These questions also correspond to the three indicator factors in the conceptual model (see Table 1). In other words, a cluster analysis based on these four questions will place each municipality into one of the clusters.

Latent class analysis (LCA) is a method of cluster analysis that was developed to handle discrete variables, and variables of different scale types, and hence is suitable in analyses of survey data (McCutcheon 1987). The association between observed variables is explained by an unobserved, or latent, variable that accounts for the clusters among the respondents. In cluster analysis, municipalities that share similar characteristics are grouped together. For this purpose, the statistical program Latent Gold was used, which also categorizes the municipalities into different clusters and in this way creates new variables according to the results of the cluster analysis (see Vermunt and Magidson 2000).

We began with a 1-class model that was then complemented with four additional classes to find a satisfactory fit with the data. The index of fit is  $L^2$ , which is the model fit likelihood ratio based on chi-squared statistics (Vermunt and Magidson 2000). It indicates the amount of the relationship between the variables that remains unexplained by the model. The  $L^2$  index has no fixed range but the lower the value the better the model fits the data. As a rule of thumb,  $L^2$  should not be substantially larger than the degrees of freedom. A common way of comparing different LCA-models is to count the re-

duction of  $L^2$  compared to the first model (which assumes that there are no clusters). The model with the greatest reduction of  $L^2$  has the best fit. However, another way of measuring the model's goodness of fit is the Bayes information criterion (BIC). BIC also takes the parsimony of the model into account, since ideally, a model should explain as much as possible of the variance with as few as possible variables. When comparing different models, the lower BIC value, the better the model (Vermunt and Magidson 2000). Degrees of freedom ( $df$ ) is defined by the number of unique observed rating patterns minus 1. The  $p$  value indicates whether there is a significant difference between the model and the data. The main objective of the analysis is to find a model with a good fit which means that there should not be a significant difference between the model and the data, i.e. the higher  $p$  value, the better model. All models were re-estimated several times, using different starting values, to avoid a local maximum likelihood solution. A summary of the LCA results is shown in Table 5.

**Table 5. Latent cluster analysis (LCA) of the municipalities. N=148, model fit for five LCA models.**

Model	Number of Clusters	$L^2$	BIC (based on $L^2$ )	$df$	$p$ -value	Reduction of $L^2$ in relation to Model 1
Model 1	1	176.3	35.12	29	0.00	00.0%
Model 2	2	53.9	-53.23	22	0.00	69.4%
Model 3	3	11.3	-61.71	15	0.73	93.6%
Model 4	4	6.6	-32.34	8	0.58	96.3%
Model 5	5	4.3	-0.53	1	0.04	97.5%

By evaluating the results, the best solution was then chosen based on both statistical and theoretical criteria. The former was measured by a goodness of fit measurement (BIC) and the latter by analyzing the characteristics of each cluster and comparing this with earlier research and the conceptual model in Table 1. Even though the reduction of  $L^2$  (93.6%) in Model 3 is slightly less than in models 4 and 5, Model 3 was chosen because of the comparably better fit (according to BIC) and the solution makes better sense theoretically.

Table 6 shows the characteristics of the clusters in terms of the municipalities comprising them, as well as their Wald statistics and

**Table 6. Cluster membership probabilities (first row), conditional probabilities constructed from belonging to a particular cluster and conditional cluster probabilities of belonging to a particular cluster given the indicator variable (in brackets), Wald statistics and how much variance the cluster solution explains of each indicator variable ( $R^2$ ).**

Indicator factors	Active	Intermediary	Passive	Wald	$R^2$
Proportion of municipalities in each cluster	39%	24%	37%		
1. Concern about people with foreign backgrounds				57.79**	0.57
High	79% (92) <sup>10</sup>	8% (5)	3% (3)		
Medium	10% (13)	85% (74)	9% (12)		
Low	11% (11)	8% (5)	88% (84)		
1. Concern about different languages				16.10**	0.76
High	99% (88) <sup>10</sup>	19% (10)	3% (3)		
Medium	0% (0)	81% (88)	7% (12)		
Low	0% (0)	0% (0)	90% (100)		
2. Information in languages other than Swedish				22.26**	0.24
Yes	67% (65) <sup>10</sup>	41% (21)	12% (11)		
No	33% (21)	59% (24)	88% (54)		
2. Preparedness measures				11.18**	0.14
Yes	36% (54) <sup>10</sup>	43% (5)	5% (6)		
No	64% (34)	57% (74)	95% (47)		

\*  $p < .05$ ; \*\*  $p < .01$

$R^2$  values. According to Vermunt and Magidson (2000), the Wald statistic tests whether an indicator provides a statistically significant degree of discrimination among the clusters. Moreover, the  $R^2$ , which is similar to the explained variance in multiple regression analysis, indicates how well an indicator is explained by the model. The numbers in parentheses indicate the relative frequency of cluster membership. For example, among all municipalities stating that they consider immigrants to a high degree in their crisis communication, 92 percent belong to the Active cluster.

The three clusters have been named after the conceptual model and what characterizes them, namely Active, Intermediary, and Passive municipalities. The distribution of municipalities among the clusters is slightly polarized, three quarters of the municipalities are either in the Active or Passive cluster and one quarter is in the Inter-

mediary cluster. In general, active municipalities show high concern regarding people with foreign backgrounds and language problems, and all of the Active municipalities take different languages into account in their crisis communication. Sixty seven percent of the municipalities have information in languages other than Swedish and 36 percent have taken preparedness measures directed toward people with foreign backgrounds. Among the municipalities categorized as Intermediary, relatively many (43 percent) have taken preparedness measures but they show neither high nor low engagement with regard to the other factors. The last group, Passive municipalities, is like a negative image of the Active group. Only 3 percent of the municipalities in this group take people with foreign backgrounds or language problems into account in their crisis communication. Only 12 percent have information in languages other than Swedish and 5 percent have taken some kind of preparedness measures<sup>5</sup>.

Table 7 shows how the three clusters of municipalities differ on the five contextual factors; population size, number and proportion of people with foreign backgrounds in the municipality, and whether the municipality has experience of crises where people with foreign background were involved and in general. All but one of these factors differs in a significant way among the groups. Beginning with the Passive group, we find that these municipalities are relatively small in terms of population size, and have relatively few people with foreign backgrounds, in both absolute terms and proportionately, and only 15 percent of these municipalities have experienced a crisis where people with foreign background were involved. This is perhaps not a surprising result but, turning to the Active and Intermediary groups, the findings are less expected. The differences are small, but it is the group of Intermediary municipalities that has the highest mean number of both inhabitants and people with foreign backgrounds, while the proportion of people with foreign backgrounds does not differ between the groups. This indicates that there is not a linear relationship between number of inhabitants, or proportion of people with foreign backgrounds, and how active the municipality is. However, the Active group has experienced crises with people from this group to a higher degree than the Intermediary group. This indicates that population size and the proportion

of inhabitants who have foreign backgrounds are of importance for whether a municipality is passive or not, but there is no difference between Active and Intermediary in this respect. The Active municipalities seem to be more influenced by earlier experience of crises where people with foreign background have been involved.

**Table 7. Differences in characteristics between the groups (One-way ANOVA, F-Values).**

Indicator factors	Active	Intermediary	Passive	F
4. Earlier experience of crises (mean number of crises)	2.79	2.79	3.07	1.21
4. Earlier experience of crises where people with foreign backgrounds were involved (dummy, mean percentage of having an experience)	38%	32%	15%	3.30*
5. Population size (mean number of inhabitants)	32716	41055	16635	6.73**
5. Number of people with foreign backgrounds (mean number of people with foreign backgrounds)	4326	5339	1337	7.16**
5. Percentage of people with foreign backgrounds (mean percentage of people with foreign backgrounds)	12%	11%	8%	3.72*

\* p < .05; \*\* p < .01

## Discussion

The focus of this study has been Swedish municipalities' crisis communication with people who have foreign backgrounds. Local authorities, such as municipalities, are central in the communication process in times of crises, and in Sweden they have a territorial responsibility for the inhabitants in crisis. Crisis communication models tend to standardize the mode of operation in crises, even though we know that tailor-made communication is more effective than mass communication. That is, when the population is heterogeneous, homogeneous communication is not likely to be the best alternative. The questions raised in this study were then whether Swedish municipalities consider people with foreign backgrounds in their crisis communication, whether there are differences between municipalities in this respect and what these possible differences might depend on. Three conclusions can now be drawn and, considering that Sweden is similar to many other Western countries in

having an ethnically mixed population with different socio-cultural and socio-economic conditions, it is reasonable to suggest that these conclusions have implications for other countries as well.

First, Swedish municipalities do not consider people with foreign backgrounds to a high degree in their crisis communication. Ethnicity and religion is more or less ignored and, although many report considering languages other than Swedish, only 38 percent actually have information in other languages and as few as 25 percent have taken any preparedness measures. This shows that a majority of Swedish municipalities are not well prepared for a large-scale crisis where people with foreign background are involved and it confirms that the authorities concerned tend to standardize crisis communication and treat the population as homogeneous rather than heterogeneous. Indeed, these results suggest that other population differences related to ethnicity and religion—family structures, risk communication source credibility, preferred communication channels, and message content—are also disregarded. Earlier research has, as pointed out earlier, shown that people with foreign backgrounds are less likely than the majority population to be aware of and apply for public assistance (e.g., Lindell and Perry 2004). Hence, most authorities such as municipalities fail to fulfill their responsibility to take care of all people within their geographical territory. This not only includes translating risk communication messages, but also adjusting to everyday life heterogeneity of the population.

It is interesting that these empirical findings correspond in principle to the scientific agenda and earlier research, which also displays a clear focus on standardized models and issues related to language (Gudykunst 2004) and largely ignore issues such as ethnicity and religion (Frew 2004; Wester-Herber 2004). Three questions can reasonably be raised here: Have the standardized models often found in organizational crisis communication research influenced the work of crisis managers to such an extent that issues not raised in these models have no impact on organizational practices? Or is there more of an overriding idea in both research and practice that treating everyone similarly is efficient and 'fair'? Or is it the case that both researchers and crisis communication managers often belong to the majority population, and are therefore not aware of possible differences in reactions and in coping strategies among the public?

Second, the conceptual model presented in this article combines an organizational perspective (McConnell and Drennan 2006) with a contextual perspective (Sundelius et al. 2001). The model's main aim was to categorise municipalities and explain possible differences between the categories. The empirical analysis of the typology shows that Swedish municipalities can be categorised into (relatively) Active, Intermediary and Passive, but not exactly as expected. The three kinds of indicator factors presented in the conceptual model predicted that the Active group would score highest on all three indicators and the Passive group the lowest. However, the Intermediary group scored highest on one item—preparedness measures. (Note that the difference between the Active and Intermediary group is not significant. Instead, it is the Passive group that differ from the two others). Active municipalities have contingency plans which consider people with foreign backgrounds and they are prepared to communicate in languages other than Swedish. Passive municipalities, on the other hand, do not include people with foreign backgrounds in their plans and strategies, nor do they have information in foreign languages or take any kind of preparedness measures. The distribution of municipalities among the three types is not even: Active and Passive municipalities are much more frequent than the Intermediary ones.

McConnell and Drennan (2006) talk about how crisis management becomes embedded in both formal and informal practices, and one way of interpreting our results is that the Active municipalities have, in fact, begun to incorporate considerations of this kind in formal practices. However, there is still a long way to go before we can talk about embeddedness in terms of crisis communication with people who have foreign backgrounds on the overall organizational agenda or in the organizational psyche. This quantitative analysis is helpful in explaining differences between municipalities.

Third, the conceptual model also includes two kinds of contextual factors, demographic variables and earlier experience. The idea behind this was to see which factors in the environment of the organizations, if any, influence crisis communication with people who have foreign backgrounds. The analysis showed that population size and the number of inhabitants with foreign backgrounds

play a role. Passive municipalities are smaller and have fewer immigrants than Intermediary and Active ones. The relationship is not linear; rather, there seems to be a threshold. A municipality must have a certain population size and structure before the organization begins to adjust its crisis communication strategy to its demographic environment. Where exactly this point is located is not possible to determine in this study, but this should be an interesting question for future research.

Turning to the second contextual factor, previous crises within the geographical territory of the municipality, it is clear that such experiences in general do not differ among the three groups, but experiences of crises where people with foreign backgrounds have been involved do indeed differ. It is the Active group that has the most experience of these kinds of crises, followed by the Intermediary and finally the Passive group. Although the latter group has the most experience of crisis in general, it has had less than half as many crises in which people with foreign backgrounds have been involved as either the Intermediary or Active group. This indicates that organizations' learning, and thereby their adjustment of crisis communication to a multicultural society, largely depends on learning based on earlier experiences (Kim 1998; Stern 1997). In practice, this indicates that the act of changing regulations and policy, which has been done in Sweden, might not be enough to change municipalities' preparedness and policy. Instead, it might be more successful to organize interactive practices where experience can be exchanged and learning exercised.

The conceptual model presented here is descriptive, and cannot contribute much when it comes to advising municipalities how to change the current situation. However, developing the contextual dimension of the model further and more clearly showing how interaction with the organization's environment is fruitful might help municipalities to better adapt to a changing world. Two-way communication is a way of improving organizational communication with the surrounding society (Gouldson et al. 2004, Lofstedt 2003), and also an important aspect of double loop learning (Argyris and Schön 1978). Hence, we suggest a particular kind of two-way interactive communication, namely crisis exercises, where representatives from

different population segments participate together with crisis managers to create reality-like experiences. This would increase opportunities for learning and thereby for changes in local authorities' crisis communication. Furthermore, this is a factor that organizations can influence by themselves, while the number of inhabitants or proportion of people who have foreign background is harder to control, to say the least. An exercise like this can initiate learning processes comparable with double loop learning, since the participants might reconsider their views and practices through the interaction with each other. That is, both risk managers and representatives of different population groups get an opportunity to learn and established norms and policies can be questioned and hopefully changed. Someone might argue that if the municipalities do not even have information in other languages than Swedish, why would they engage in large scale exercises taking both time and money? Emergency exercises are, however, something that many municipalities do already to practice their crises management. This means that it is not a large step to include a multicultural dimension in these already existing practices.

Organizational learning, particularly Argyris and Schön's double loop learning, also shows that active interaction with the customers, clients or inhabitants is crucial to avoid single loop, or low level, learning. This means that general advice and detailed standardized communication models are problematic in heterogeneous societies. Rather than finding one solution that fits all, each municipality, or at least each category of municipalities, must analyze and adjust to its specific context and population.

Finally, it is reasonable to assume that other marginalized groups, such as poor, disabled and old people, are also forgotten or ignored in local authorities' crisis communication. Thus, the questions posed above also concern these groups, not only people with foreign backgrounds. This study cannot answer these questions, but hopefully it has highlighted a number of issues: the importance of new or adjusted crisis communication models that are flexible and take the heterogeneity of the population into account; the insight that treating everyone the same is not necessarily equivalent to being fair; and the importance of a wide range of experience among professionals working with crisis communication in practice.

### Notes

<sup>1</sup>The definition of a crisis often includes three characteristics; a moment of surprise, unpredictability and a threat to basic physical or social structures and, in addition to these, that central actors perceive the event in these terms (Sundelius, Stern and Bynander 2001; see also McConnell and Drennan 2006; Quarantelli 2003; Rosenthal, 't Hart and Charles 1989). In Sweden the law regulating municipalities' responsibility defines a crisis as: "An extraordinary event [crisis], such events that differ from the normal, that mean serious disturbance or impending risk of a serious disturbance of important societal functions and demand quick action by a local government or county council." (SFS 2006:544).

<sup>2</sup>According to The Swedish Association of Local Authorities and Regions there are nine categories of municipalities in Sweden (Bengtsson 2004): Large cities, Suburb municipalities, Commuting municipalities, Municipalities characterized by production of goods, Municipalities with a city of >50,000 inhabitants, Municipalities with 25,000-50,000 inhabitants, Municipalities with 12,500-25,000 inhabitants, Municipalities with <12,500 inhabitants, and Sparsely populated municipalities (not only in terms of number of inhabitants but also density).

<sup>3</sup>Unstructured interviews were made to get an overview of the municipalities' crisis communication. Each interview was between 30 and 60 minutes long, and included questions about the municipality's crisis management in general and their crisis communication with regard to immigrants in particular.

<sup>4</sup>The response alternative "Low" also includes "no consideration", and the majority of the interviewees using this response alternative stated that they did not take these groups into consideration at all. The same applies to Table 2.

<sup>5</sup>Ethnicity and religion were excluded from the analysis since so few municipalities consider these demographic characteristics in their crisis communication (12 municipalities replied that they consider ethnicity, 1c, to a high degree, and 10 replied that they consider religion, 1d, to a high degree).

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