

Cultural differences in an evacuation scenario

- A study comparing Australian and Swedish responses

Do you have to consider cultural differences when using data from other countries?

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This study firstly aimed to determine if there are any characteristic differences between the two countries Australia and Sweden regarding the following aspects:

- **Pre-movement time**
- **Interpretation of the fire alarm** (in terms of feelings and associations to the fire alarm)
- **Group dynamics**

The study also aimed to explore whether or not data about human behaviour during evacuations may be used globally without considering the influence of culture.

Method

The evacuation experiments took place at universities in both countries during regular tutorials. The tutor was not present when the alarm was activated and the students did not know in advance that the fire drill would occur. The age range for the participants varied between approximately 18-40 years.

	AUS	SWE
Nr of fire drills	6	7
Nr of participants	152	105
Nr of females	68 %	38 %

Four types of methods were used to collect the data:

- **Questionnaires**
- **Video recordings**
- **Observations**
- **Interviews**

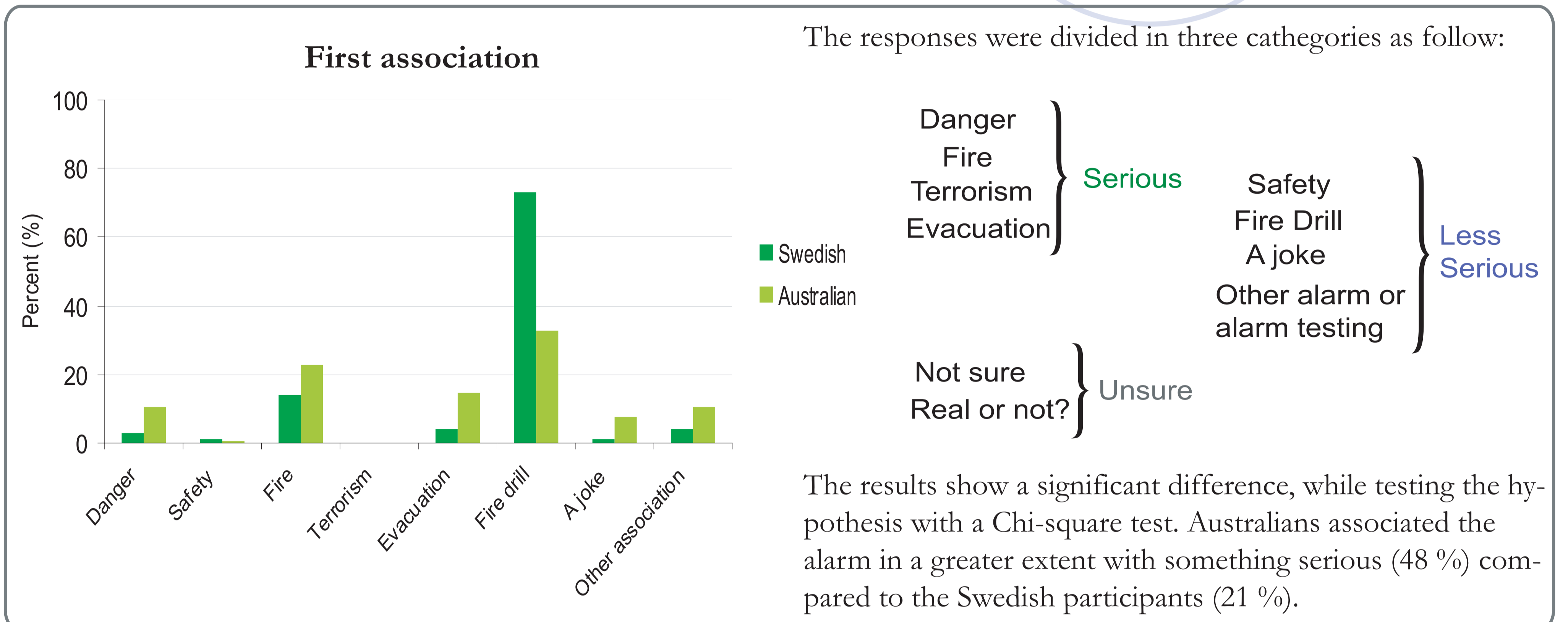
The questionnaires and video recordings were the central data collection techniques. The interviews complemented data from the questionnaires and video recordings to ensure reliable results and to fill in the gaps that the questionnaires or video recordings did not register.

All the quantitative data were analysed through test of hypothesis and different statistical tests appropriate to the nature of the collected data. The qualitative data were mainly analysed using content analysis.

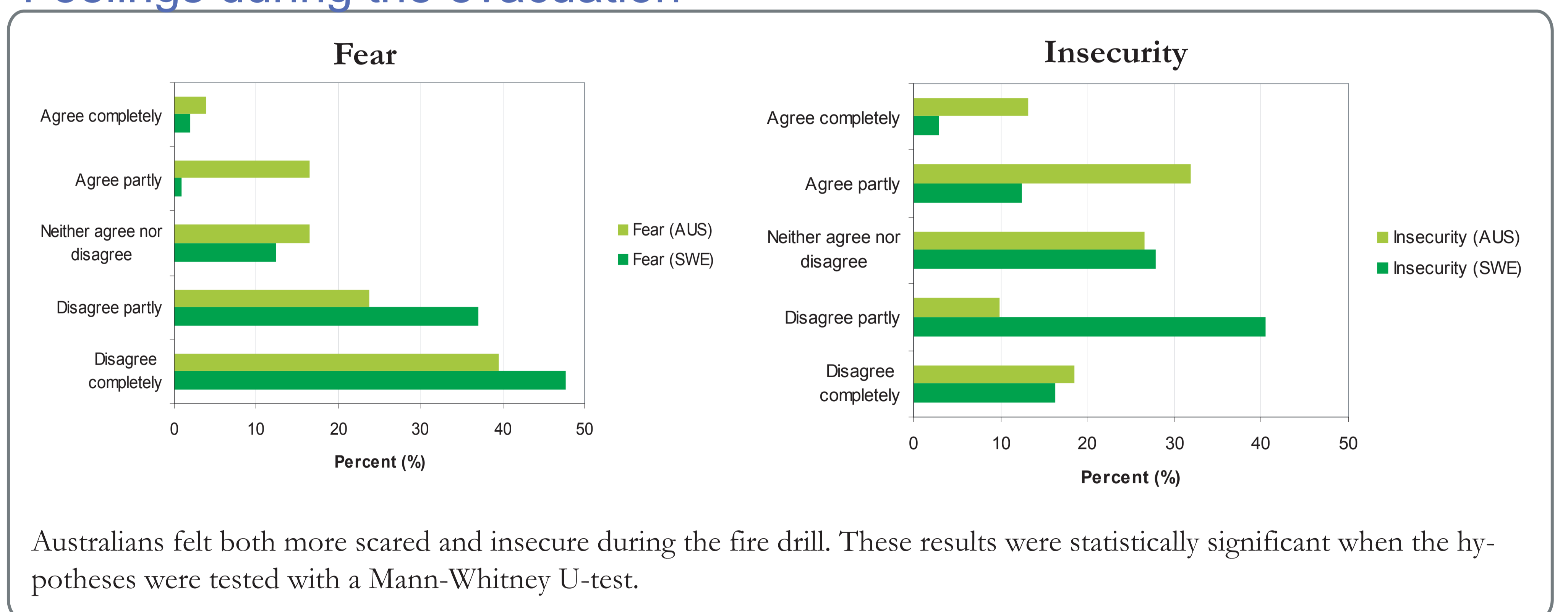
Results

- **Australians associated the fire alarm in a larger extent to something serious (see box)**
- **Australians were found to be more scared and insecure (see box)**
- **Although not significant, slight differences were found in pre-movement times where Swedes took longer (1 min 30 sec) compared to Australians (1 min 20 sec)**
- **Swedish participants more often evacuated in groups and had more discussions with each other. Australians were found to be more inhibited by other participants' behaviour.**

Associations to the fire alarm



Feelings during the evacuation



Conclusions

Do you have to consider cultural differences when using data from other countries?

This study shows that care must be taken when transferring data about people's associations and feelings in emergencies. The amount of data for pre-movement time and group behaviour were more limited and more research should therefore be conducted in these areas before confident assumptions can be made regarding cultural differences.

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