Saudi authorities say they have spent more than $300 million to improve the safety of pilgrims during the annual visit to the Muslim holy sites, a central tenet of Islam. But stampedes still happen in Saudi Arabia and elsewhere, so psychologists are trying to understand why and what can be done to prevent them. Observing groups of undergraduate students, psychologists at the University of Sussex noticed differences in behavior when subjects perceived themselves as individuals sharing only physical space with others, as opposed to sharing some sort of social identity. Students who shared the common identity, such as wearing the same black baseball caps, stayed together, keeping a close formation. Students who did not belong to a group just rushed past each other.

Using the videos, social psychologists at the University of Applied Sciences in Munich created a computer simulation which showed that individuals sharing a common identity move slower and seem to be less susceptible to panic attacks. They may be easier to control because they feel safer when they belong to the same group. Psychologists say this and other studies point to the importance of having a person who communicates to others within a group, helping everyone internalize instructions about which behavior is safe and which is unsafe.