

Humans are capable of living alone but few choose to do so. Thus virtually all-human activities like working, learning, worshipping, relaxing, playing etc. occur in groups. Groups can range from two members to thousands. The members of the group are linked to each other in a network or society.

The famous book by Elliot Aronson called “The Social Animal” talks of society and humans as social animals. It states that this is something intrinsic to their nature and that it precedes the individual. The author further claims that humans are conformists and that most would often avoid a dispute with others in society. Conformity, as defined in the book “The Social Animal” is the change in a person’s behaviour or opinions as a result of a real or imagined pressure from a person or a group of people.

Conformance can be seen in the serious incident reported by Heathrow ATC, following an unsafe takeoff from runway 27, on 30th Aug 2016. The B-777 operated by Jet Airways, an airline registered in India, had crossed the end of the runway at just 16 feet. Investigation revealed that an intersection takeoff was planned for runway 27 at Heathrow from intersection S4E, the 5th intersection for runway 27. The crew consisted of a highly experienced Captain, male aged 45 years, total flying experience over 13,000 hrs and Co-Pilot, female aged 32 years, total flying experience over 2400 hrs. The commander had incorrectly calculated aircraft performance (speeds and thrust) from the first four intersections on the north side of Runway 27L (NB1, NB2E, NB2W, and NB3) whereas the co-pilot had correctly used S4W, the 5th intersection. The commander had done this by selecting the “FIRST 4” option from the onboard performance tool (OPT) intersection dropdown menu rather than using the “S4W” option. The Co-Pilot changed the option in her OPT to match the commander’s option and did not select S4W again.

The conformance of the co-pilot with the incorrect method of performance calculation used by the Captain prevented an individual verification of the parameters used for takeoff performance. The incorrect performance led to the incident, which compromised the obstacle clearance of the aircraft at takeoff and put the lives of the passengers and crew at risk.



Figure 1: London Heathrow Airport south of Runway 27L

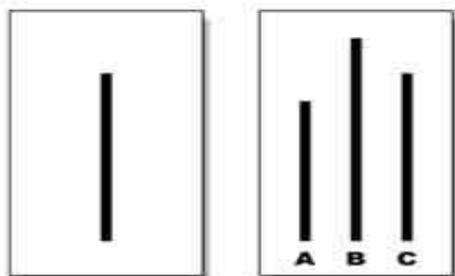
Open source credit: DGCA India

When individuals work alone, social forces are minimized but add another person to the situation and the social processes immediately begin to shape the actions and outcomes of group members (Forsyth, 2014). In some situations, performance improves due to social facilitation while, in other more complex and challenging ones, it decreases.

Characteristic	Reaction to influence
Age	Conformity increases until adolescence and then decreases into adulthood (Castanzo & Shaw, 1966)
Dependency	People who are higher in dependency display heightened compliance, conformity, and suggestibility (Bornstein, 1992).
Gender identity	Masculine individuals and androgynous individuals conform less on gender-neutral tasks than feminine individuals (Bern, 1982).
Individualism-collectivism	People from collectivistic cultures (e. g. Asians) value conformity as a means of achieving harmony with others (Kim & Markus, 1999)
Self esteem	Individuals with low self esteem conform more than individuals with high self esteem (Berkowitz & Lundy, 1957)
Self monitoring	High self monitors, because of their higher self presentational tendencies, conform more when making a positive impression (Chen, Shechter & Chaiken, 1966)
Yes-saying	Yes-sayers, particularly when working under a cognitive load, say "yes" faster and more frequently when individuals who thoughtfully consider their position (Knowles & Condon, 1999)

In an experiment carried out in 1951 by Solomon Asch, a famous psychologist, Asch investigated the extent to which social pressure from a majority group could affect a person to conform. He devised what is now regarded as a classic experiment in social psychology, whereby, there was an obvious answer to a line judgment task. If the participant gave an incorrect answer it would be clear that this was due to group pressure.

Asch used a lab experiment to study conformity, whereby 50 male students from Swarthmore College in the USA participated in a 'vision test.' Using a line judgment task, Asch put a naive participant in a room with seven confederates. The confederates had agreed in advance what their responses would be when presented with the line task. The real participant did not know this and was led to believe that the other seven participants were also real participants like himself.



Each person in the room had to state aloud which comparison line (A, B or C) was most like the target line. The answer was always obvious. The real participant sat at the end of the row and gave his or her answer last. There were 18 trials in total, and the confederates gave the wrong answer on 12 trials (called the critical trials). Asch was interested to see if the real participant would conform to the majority view. Asch's experiment also had a control condition where there were no confederates, only a "real participant."

Asch measured the number of times each participant conformed to the majority view. On average, about one third (32%) of the participants who were placed in this situation went along and conformed to the clearly

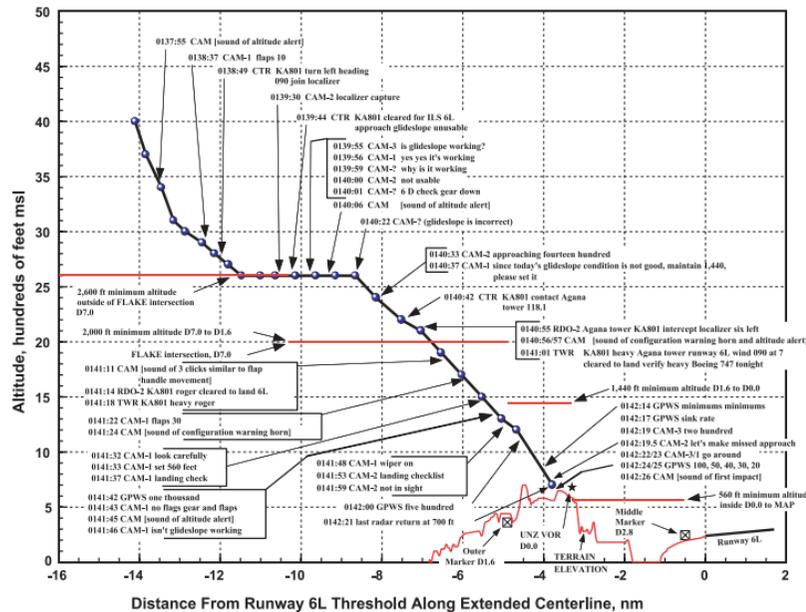
Apparently, people conform for two main reasons:

1. because they want to fit in with the group (normative influence)
2. because they believe the group is better informed than they are (informational influence).

Identification, is a term, which occurs when a person changes apparent facets of their personality such that they appear more like the other person. In identification, behaviour is not modified because it is intrinsically satisfying, rather one adopts a particular behaviour because it puts one in a satisfying relationship with the other person with whom one is identifying.

In an accident, a key event in aviation history with respect to crew resource management, on August 6, 1997, Korean Air flight 801, a Boeing 747-3B5B (747-300), crashed at Nimitz Hill, Guam. The airplane had been cleared to land on runway 06 Left at A.B. Won Guam International Airport, Agana, Guam. It crashed into high terrain about 3 miles southwest of the airport. Of the 254 persons on board, 228 were killed, and 23 passengers and 3 flight attendants survived the accident with serious injuries. Impact forces and a post crash fire destroyed the airplane.

An instrument approach was available with the vertical guidance unserviceable. The azimuth guidance was with the localizer only approach, which was cleared by the air traffic controller (ATC). The Captain was not prepared for it and nor did he adequately brief the crew regarding the approach. One of the key findings of the investigation was the role of the supporting crew, particularly that of the first officer and the flight engineer. Although the first officer properly called for a missed approach 6 seconds before impact, he failed to challenge the errors made by the captain (as required by Korean Air procedures) earlier in the approach, when the captain would have had more time to respond. Significantly, the first officer did not challenge the captain's premature descents below the prescribed heights.



Open source credit: NTSB report PB00-910401, AAR00-01

In South Korea, society and culture play an important and integral role in the behavioral response of individuals

People have a powerful need to belong in society. Acceptance and rejection are among the most potent rewards and punishments for social animals because, in our evolutionary history, social exclusion could have disastrous consequences—namely being cut off from the resources and protection of the group in a dangerous world. Thus, humans who passed their genes along were those with the strong inclination to fit in with the group. The legacy of this history is that most of us will go to great lengths to avoid social exclusion. There are two possible reasons why people, like us, might conform.

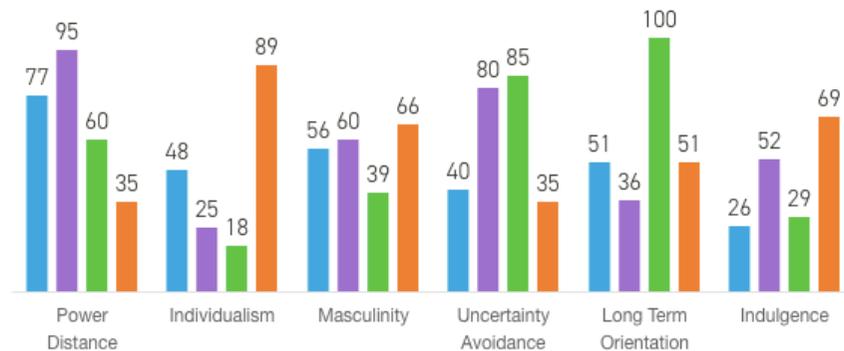
One is that the behavior of others might convince us that our initial judgment was erroneous; the other is that conformity often secures our place within a group. The behavior of the individuals in Asch's experiment and in other similar experiments seemed to be largely a matter of attempting to avoid exclusion. This can be inferred from the fact that there was very little conformity when participants were allowed to respond privately.

At the same time, there are many situations in which we conform to the behavior of others because their behavior is our only guide to appropriate action. In short, we often rely on other people as a means of determining reality.

According to Leon Festinger, when physical reality becomes increasingly uncertain, people rely more and more on "social reality"; that is, they are more likely to conform to what other people are doing, not because they fear punishment from the group but because the group's behavior supplies them with valuable information about what is expected of them. The following example from everyday life cited by Festinger will help clarify this distinction. "Suppose that you need to use the toilet in an unfamiliar classroom building. Under the sign "Rest Rooms" there are two doors, but unfortunately, a vandal has removed the specific designations from the doors so you cannot be certain which is the men's room and which is the women's room. Quite a dilemma—you are afraid to open either door for fear of being embarrassed or embarrassing others. As you stand there in dismay and discomfort, hopping from one foot to the other, the door on your left opens and out strolls a distinguished-looking gentleman. With a sigh of relief, you are now willing to forge ahead, reasonably secure in the knowledge that left is for men and right is for women."

Research has shown that the more faith an individual has in the expertise and trustworthiness of the other person, the greater the tendency to follow his or her lead and conform to his or her behavior.

Geert Hofstede developed what is referred to as "Hofstede's cultural dimensions" theory. The theory is a framework for cross-cultural communication. It describes the effects of a society's culture on the values of its members, and how these values relate to behavior, using a structure derived from factor analysis. Hofstede's work established a major research tradition in cross-cultural psychology and has also been drawn upon by researchers and consultants in many fields relating to international business and communication.



Open source: Hofstede's insights of cultural comparison

At an intermediate score of 60, South Korea is a slightly hierarchical society. This means that people accept a hierarchical order in which everybody has a place and which needs no further justification. Hierarchy in an organization is seen as reflecting inherent inequalities, centralization is popular, subordinates expect to be told what to do and the ideal boss is a benevolent autocrat.

South Korea, with a score of 18 in individualism, is considered a collectivistic society. This is manifested in a close long-term commitment to the member 'group', be that a family, extended family, or extended relationships. Loyalty in a collectivist culture is paramount, and over-rides most other societal rules and regulations. The society fosters strong relationships where everyone takes responsibility for fellow members of their group. In collectivist societies, offence leads to shame and loss of face, employer/employee relationships are perceived in moral terms (like a family link), hiring and promotion decisions take account of the employee's 'in-group', management is the management of groups.

Since the society in South Korea leans towards being autocratic and has strong family values, the individualism score is low as compared to other societies like the United Kingdom and United States. The members of the society function by means of conformance and since hierarchy and old roots are given much importance, there is little room for assertiveness or dissent.

Humans live in a society and the impact or influence of the society on their work, relationship, and behaviour cannot be segregated by corporate policies and standard operating procedures. Values and beliefs are formed in the initial few years after birth and are strengthened to form habits in the adolescent years; therefore, changing the habits or the way we do what we do is not an option at a later stage.

Extending this view to the Airline industry, I believe that airlines must aim to integrate their policies and procedures with existing social values and beliefs to alter the habits of the crew instead of forcing a new procedure which conflicts with the individual or group's internal or social habit. Holding contradicting values and habits will lead to dissonance and can cause unsafe situations when the crew encounters a complex and/or stressful situation.