



What is Culture?

There are a lot of definitions of culture, as many commentators have noted (Adler & Gundersen, 2008; Chávez, 2009; Gudykunst et al., 1988). Some general definitions are provided below. Each of the definitions highlights one aspect of the complex web of ideas that constitutes culture.

Definitions of Culture

From his perspective as an anthropologist, Hall (1990, p. 20) stated that “culture has long stood for the way of life of a people, for the sum of their learned behavior patterns, attitudes, and material things.” This definition points to the existence of both material and non-material dimensions of culture. The distinction is elaborated in the following definition by Giddens et al. (2005, p. 52), which also expresses the notion that social groups may have their own cultures: “Culture consists of the values the members of a given group hold, the languages they speak, the symbols they revere, the norms they follow, and the material goods they create, from tools to clothing.”

In order to participate in a social group, it is necessary for individuals to learn about the group’s culture, which provides “the common denominator that makes the actions of individuals intelligible to other members of their society” (Haviland et al., 2016, p. 31). As a corollary, the actions of individuals from one group may not be readily intelligible to the members of other groups. This may lead to misunderstandings between different social groups.

Trompenaars and Hampden-Turner (1997, p. 13) observed that culture provides people with a common way of interpreting the world: “Culture is a shared system of meanings. It dictates what we pay attention to, how we act and what we value.” By noting the influence of culture on what people “pay attention to”, this definition carries the important implication that people in different cultures pay attention to different things.

Similarly but more succinctly, Pennycook (1994, p. 61) defined culture as “an active process by which people make sense of their lives”. In describing culture as a process, Pennycook evoked the origins of the word. As Williams (1985, p. 87) noted, “Culture in all its early uses was a noun of process: the tending of something, basically crops or animals.” The agricultural sense of tending or growing something persists through to the present day in related words such as “cultivate”.

The FAA (1996, p. 117), in its role as the regulator of civil aviation in the United States, provided a straightforward definition of culture as “the norms, attitudes, values, and practices that members of a nation, organization, profession, or other group of people share”. This definition highlights social groups whose members share a common culture, and points to the importance of **national**, **organizational** and **professional cultures**.

Material and Non-Material Culture

A fundamental distinction may be made between material culture and non-material culture. Material culture refers to the physical things that humans create and use, such as



clothing, houses, cars and aircraft. Non-material culture refers to things not embodied in physical objects, such as social roles, language, rules, norms and beliefs (Little, 2014). These two aspects interact with each other, for instance when a physical object symbolizes a cultural idea or when people have a belief in a physical object. Kendall (2007, p. 78) cited the example of travelling by plane: “we believe [ie: non-material aspect] that it is possible to fly at 33,000 feet and to arrive at our destination even though we know that we could not do this without the airplane [ie: material aspect] itself.”

Williams (1985) contrasted two differing views of culture: on the one hand, as the production of materials, which is common in archaeology or cultural anthropology; and on the other hand, as the production of symbols, more commonly found in history or cultural studies. In aviation, it is important to recognise the value of both of these aspects. Material culture includes the uniforms of pilots and the aircraft they fly, while non-material culture includes the phraseology that pilots and ATC use to communicate.

Dealing with Problems

Another perspective regards culture as a defensive adaptation for dealing with the problems of life. In order to do this, Csikszentmihalyi (1990, p. 81) posited that cultures direct attention towards a limited set of goals and solutions:

Cultures are defensive constructions against chaos, designed to reduce the impact of randomness on experience. They are adaptive responses, just as feathers are for birds and fur is for mammals. Cultures prescribe norms, evolve goals, build beliefs that help us tackle the challenges of existence. In so doing they must rule out many alternative goals and beliefs, and thereby limit possibilities; but this channeling of attention to a limited set of goals and means is what allows effortless action within self-created boundaries.

Similarly, Trompenaars and Hampden-Turner (1997, p. 6) described culture as “the way in which a group of people solves problems and reconciles dilemmas”. Drawing on the work of anthropologists Florence Kluckhohn and Fred Strodtbeck, they suggested that humans face certain universal problems. These problems arise from the relationships that people have with other people, time, activities and nature. The central idea proposed by Trompenaars and Hampden-Turner (1997, p. 27) is that “all cultures are similar in the dilemmas they confront, yet different in the solutions they find”. Starting from categories of universal problems, they developed a framework for describing people’s relationships along seven cultural dimensions.

Group Culture

One view of culture holds that it forms an inextricable part of the identity of certain social groups. Merritt, for example, defined culture as “the values and practices that we share with others that help define us as a group, especially in relation to other groups” (as cited in Engle, 2000, p. 109). Likewise, after noting multiple ways in which the word “culture” has been defined, Scollon et al. (2012, p. 3) suggested that it is best thought of as “a way of dividing people up into groups according to some feature of these people which helps us to understand something about them and how they are different from or similar to other people.”



Hofstede (1983, p. 76) labelled culture as “collective mental programming” and indicated that it operates at a range of social levels: “it is that part of our conditioning that we share with other members of our nation, region, or group but not with members of other nations, regions, or groups”. Echoing the aforementioned view of culture as a means of coping with problems, Usunier (1998, p. 16) defined it in terms of “pre-set and agreed upon solutions” that allow people to effectively communicate and coordinate their actions with other members of their group. Adler and Gundersen (2008) observed that culture is transmitted from older to younger group members and is shared by all, or nearly all, members of a social group.

There are two qualifications to these definitions of culture as it pertains to social groups. Firstly, Maznevski and Peterson (1997, p. 66) cautioned that “individual members of a culture do not always reflect the norms of the culture, either in values or behavior”. Secondly, Usunier (1998, p. 17) pointed out that individuals may belong to several social groups and switch between different operational cultures depending on the situation:

Culture can be viewed as a set of beliefs or standards, shared by a group of people, which help the individual to decide what is, what can be, how one feels about it, what to do, and how to go about doing it... Consequently, individuals may share different cultures with several different groups - a corporate culture with colleagues at work, an educational culture with other MBA graduates, an ethnic culture with people of the same ethnic origin. When in a particular situation, they will switch into the culture that is operational.

In other words, an individual may be informed by multiple cultural influences, and the dominant influence may vary depending on the situation or context.

Changes in Cultures over Time

Cultures change over time as new ideas or ways of doing things are introduced. One process of change is the **discovery** of something previously unknown. For instance, although its existence was postulated in 1807, aluminium was not isolated until 1825. This discovery was to later play an important role in the development of aviation, as foretold by J. W. Richards in the 1880s: “It has been well said that if the problem of aerial flight is ever to be solved, aluminium will be the chief agent in its solution” (as cited in Budd, 1999, p. 6). Aluminium alloys began to be used for aircraft skins following the First World War. Due to its lightness and strength, aluminium later became an essential material in the manufacture of aircraft.

A second process of cultural change is **invention**, when existing items of material or non-material culture are reconfigured into new forms. Drawing on their knowledge of bicycle technology and observations of bird flight, the Wright brothers made the first powered flight by a heavier-than-air aircraft in 1903.¹ This invention has subsequently transformed the

¹ The primacy of the Wright brothers is contested. The foreword to the 100th edition of “Jane’s All the World’s Aircraft” argued that Gustave Whitehead made controlled flights in Connecticut in 1901. If true, these flights predated the Wright brothers by more than two years (Jackson, 2013).



spheres of transportation, trade and warfare, with consequences that have touched every corner of the world.

Cultures also change by **diffusion**, when items or practices are transmitted from one social group to another. Air transportation has facilitated cultural diffusion by allowing ever increasing numbers of people to travel. The effects are not always positive, as when air travel inadvertently helps spread infectious diseases such as severe acute respiratory syndrome (SARS) or avian influenza (Pavia, 2007). At the time of writing, the risk posed by the Covid-19 pandemic has led to a huge reduction in air traffic.

Empirical evidence exists to support the notion that changes occur over time in national, organizational and professional cultures. Regarding national culture, studies were conducted in the same countries at different times by Trompenaars. Commenting on these studies, Hodgetts et al. (2005, p. 113) highlighted a marked increase over time in scores for the individualism dimension for Thailand, “possibly indicating an increasing entrepreneurial spirit/cultural value”.

Vaughan (1996) carried out a comprehensive analysis of the organizational culture of NASA in the years leading up to the Challenger space shuttle disaster. She documented changes over time in the organizational culture that enabled the deviant performance of a critical component to be normalized, a process she labelled “normalization of deviance”.

Concerning professional culture, Hutchins et al. (2002) conducted ethno-graphic studies of the effects of culture on airline flight decks. The authors observed that iconic accidents led to changes in pilot professional culture. Changes came about through the mechanism of pilots retelling stories of the accidents and the lessons to be learned. The accidents and lessons taught were as follows:

- crashes of early Airbus A320 aircraft that led to “a deep-seated mistrust of automation”;
- the accidents involving Aloha Airlines Flight 243 (in 1988) and United Airlines Flight 232 (in 1989) which “highlight the value of pilot decision making and CRM”;
- the 1996 ValuJet Flight 592 and 1998 Swissair Flight 111 disasters which “drive home the lesson that one must land ASAP when there is a fire in flight” (Hutchins et al., 2002, p. 22).

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