Human Psychology Behavior

7.1 Human behavior refers to the range of behaviors exhibited by humans and which are influenced by culture, attitudes, emotions, values, ethics, authority, rapport, hypnosis, persuasion, coercion and genetics.

The behavior of humans (and other organisms or even mechanisms) falls within a range with some behavior being common, some unusual, some acceptable, and some outside acceptable limits. In sociology, behavior in general is characterised as having no meaning, being not directed at other people, and thus is the most basic human action. Behavior in this general sense should not be mistaken with social behavior, which is a more advanced action, as social behavior is behavior specifically directed at other people. The acceptability of behavior depends heavily upon social norms and is regulated by various means of social control. Human behavior is studied by the specialised academic disciplines of psychiatry, psychology, social work, sociology, economics, and anthropology.

Human behavior is experienced throughout an individual's entire lifetime. It includes the way they act based on different factors such as genetics, social norms, core faith, and attitude. Behaviour is impacted by certain traits each individual has. The traits vary from person to person and can produce different actions or behaviour from each person. Social norms also impact behaviour. Due to the inherently conformist nature of human society in general, humans are pressurised into following certain rules and display certain behaviours in society, which conditions the way people behave. Different behaviours are deemed to be either acceptable or unacceptable in different societies and cultures. Core faith can be perceived through the religion and philosophy of that individual. It shapes the way a person thinks and this in turn results in different human behaviours. Attitude can be defined as "the degree to which the person has a favorable or unfavorable evaluation of the behavior in question." One's attitude is essentially a reflexion of the behaviour he or she will portray in specific situations. Thus, human behavior is greatly influenced by the attitudes we use on a daily basis.

Factors

Genetics

Long before Charles Darwin published his book *On the Origin of Species* in 1859, animal breeders knew that patterns of behavior are somehow influenced by inheritance from parents. Studies of identical twins as compared to less closely

related human beings, and of children brought up in adoptive homes, have helped scientists understand the influence of genetics on human behavior. The study of human behaviour genetics is still developing steadily with new methods such as genome-wide association studies.

Social norms

Social norms, the often-unspoken rules of a group, shape not just our behaviors but also our attitudes. An individual's behavior varies depending on the group(s) they are a part of, a characteristic of society that allows to norms heavily impact society. Without social norms, human society would not function as it currently does; humans would have to be more abstract in their behavior, as there would not be a pre-tested 'normal' standardized lifestyle, and individuals would have to make many more choices for themselves. The institutionalization of norms is, however, inherent in human society perhaps as a direct result of the desire to be accepted by others, which leads humans to manipulate their own behavior in order to 'fit in' with others. Depending on their nature and upon one's perspective, norms can impact different sections of society both positively (e.g. eating, dressing warm in the winter) and negatively (e.g. racism, drug use).

Core faith and culture

Another important aspect of human behavior is their "core faith". This faith can be manifested in the forms of religion, philosophy, culture, and/or personal belief and often affects the way a person can behave. 80% of the United States public claims some sort of belief in a higher power, which makes religion a large importance in society. It is only natural for something that plays such a large role in society to have an effect on human behavior.

 Morals are another factor of core faith that affects the way a person behaves. Emotions connected to morals including shame, pride, and discomfort and these can change the way a person acts. Most importantly, shame and guilt have a large impact on behavior. Lastly, culture highly affects human behavior. The beliefs of certain cultures are taught to children from such a young age that they are greatly affected as they grow up. These beliefs are taken into consideration throughout daily life, which leads to people from different cultures acting differently. These differences are able to alter the way different cultures and areas of the world interact and act.

Attitude

An attitude is an expression of favor or disfavor toward a person, place, thing, or event. The interesting thing about an attitude and human beings is that it alters between each individual. Everyone has a different attitude towards different things. A main factor that determines attitude is likes and dislikes. The more one likes something or someone the more one is willing to open up and accept what they have to offer. When one doesn't like something, one is more likely to get defensive and shut down.

An example of how one's attitude affects one's human behavior could be as simple as taking a child to the park or to the doctor. Children know they have fun at the park so their attitude becomes willing and positive, but when a doctor is mentioned, they shut down and become upset with the thought of pain. Attitudes can sculpt personalities and the way people view who we are. People with similar attitudes tend to stick together as interests and hobbies are common. This does not mean that people with attitudes do not interact, because they do. What it means is that specific attitudes can bring people together (e.g., religious groups). Attitudes have a lot to do with the mind which highly relates to human behavior. The way a human behaves depends a lot on how they look at the situation and what they expect to gain from it. Positive attitudes are better than negative ones as negativity can bring on negative emotions that most of the time can be avoided. It is up to humans to make sure their attitudes positively reflect the behaviors they want to show. This can be done by assessing their attitudes and properly presenting them in society.

7.2 Psychology of learning

Psychology of Human Learning

Educational psychologists have studied human learning⬈ *for years, long before the field became a formal discipline. Various learning theories developed have had a substantial effect on educational practices. Psychology and education have been linked in the U.S. since 1890, when the American philosopher William James founded psychology and presented a lecture series for teachers on the subject.*

The History of Educational Psychology

- o From the time of Plato and Aristotle, people have been interested in the relationship between teacher and student⬈. Early ideas in educational psychology included the value of practice, the need to take student interests into consideration, adapting instruction to individual differences, and the

importance of comprehension over memorization. Philosophers including Jean-Jacques Rousseau (1712-1778) stressed the educational value of prior experience, interest and activity. In the United States, William James supported the use of discussion, projects and laboratory experiments in teaching. John Dewey, founder of the "laboratory school" at the University of Chicago, is considered the father of the progressive education movement.

Key Ideas in Education and Psychology

- The psychologist Edward Thorndike supported the scientific movement in education in the early 20th century. He developed teaching methods and scales to measure ability in academic areas. However, he did not evaluate these methods in the classroom. Fifty years later, educational research returned to the classroom when the U.S. received a wakeup call with the Soviet Union's launch of the spacecraft Sputnik in 1957.

  Jean Piaget explained how humans gather and organize information. He contended that people make sense of the world by direct experience with objects, people and ideas. Piaget's theory of cognitive development transformed education and is still a force in constructivist approaches to teaching.

  Jerome Bruner believed that rather than relying on teachers' explanations, students should identify key principles for themselves. In his view, teachers should provide problem situations that motivate students toward discovery learning. David Ausubel disagreed, believing that people learn through examples. He thought that learning began with an advanced organizer, a teaching method still popular today that provides a bridge between new material and the students' knowledge.

The Psychology of Human Learning Today

- The noted behaviorist B.F. Skinner's theories on conditioning have been used extensively in education through the application of principles of reinforcement and punishment to change behaviors.

  The cognitive view sees people as active learners who seek out information to solve problems. Cognitive views of learning are consistent with approaches that teach strategies such as summarizing, organizing, planning and note-taking.

Constructivist perspectives on learning and teaching are increasingly influential today. Grounded in the research of Piaget as well as the progressive educational philosophy of Dewey and others, the constructivists advocate complex, challenging learning environments, authentic tasks and shared responsibility as a part of learning. Other constructivist views include inquiry learning, observation of a model or expert (teacher), support through tutoring, articulation of knowledge through writing, and reflection on progress.

The IQ Test

- o Alfred Binet, a Parisian psychologist, developed tests that determine a "mental age" for each child. The IQ, or intelligence quotient, was added and the test became known as the Stanford-Binet test.

Bloom's Taxonomy

- o Benjamin Bloom developed a taxonomy, or classification system, of educational objectives. Teachers, test developers and curriculum designers use Bloom's taxonomies to develop instructional objectives and testing.

Ausubel's Six Principles of Learning

In his early writings, Ausubel described six key principles of learning, each of which interrelates with the other. This makes his theory simple in terms of the number of key principles involved, but difficult to master in that one needs some understanding of all of these principles to have a better understanding of any one. Moreover, all of the principles relate to the process of meaningful learning, as contrasted with learning by rote. The distinction between rote learning and meaningful learning is, on the surface, an easy one to understand, but to understand meaningful learning fully is almost a life-long pursuit. In meaningful learning, new knowledge is not added to cognitive structure in a manner similar to filling a vessel with a liquid, sand, or marbles. The new knowledge is *assimilated* into and *integrated* with relevant existing prior knowledge. This is an active process, and only the learner can choose to learn meaningfully. This presents a challenge for the teacher or trainer, both in the instruction and in the assessment of learning. It is this assimilation process that gives the name to Ausubel's (1968; 2000) Assimilation Theory of Learning.

In the 5th century BC, Zeno of Elea proposed a number of paradoxes. He correctly observed that what new things we can learn depends on what we already know. How then can an infant learn anything? The answer is that the infant is endowed by evolution to observe regularities or patterns in events or objects in her/his environment and later to code the regularities using words. This is a *discovery* learning process where the criterial attributes of the patterns or regularities are not given to the child but rather are discovered by the child through experiences with events and objects observed. It is a remarkable learning feat, and yet every normal child succeeds to begin to learn the concepts and concept labels by age two, and in some cases to use two or three languages to code the same concepts. This is why Zeno's paradox does not apply to human learning. If every normal child succeeds at this difficult task before schooling, why do so many children have trouble mastering much simpler concepts when they are in school? The short answer is that too often school procedures encourage *learning by rote*, where no substantial meanings for concepts are acquired. Instead, schools need to use procedures that require the student to *learn meaningfully*, that is to integrate the meaning of new concepts and propositions into his/her existing framework of concepts and propositions.

Subsumption

This principle holds that new concepts or propositions assimilated into cognitive structure are usually subsumed into more general, more inclusive relevant concepts and propositions. For example, terrier, collie, and dachshund may be subsumed into the concept of "dog", now broadening and refining this concept further. Subsumption is perhaps the easiest form of meaningful learning, since relatively little cognitive restructuring is required, and usually the relationship between the new idea and subsuming concept is easily recognized. Subsumption also leads to some loss of distinction for the new concept or proposition subsumed, and in time some subsumed concepts may no longer be recalled. However, the contribution these concepts made to development of the subsuming concept largely remains and learning new relevant concepts will be at least to some extent facilitated. A person may forget that maltese is one of the 150 breeds of dogs, but learning about other breeds enhances one's concept of dog.

Obliterative Subsumption

As noted above, the process of subsumption of new ideas into cognitive structure results in some loss of identity of the subsumed idea, and this begins the process of *obliterative subsumption*. Over time, specific concepts and propositions subsumed

into cognitive structure may no longer be recallable. However, this process is usually much slower than loss of information learned by rote. Moreover, information forgotten after rote learning typically *interferes* with the learning of new similar information, whereas information loss through obliterative subsumption does not have this deleterious effect. In fact, the contribution that the obliteratively subsumed information made to enhancing the subsuming concept or proposition remains and confers facilitation of new, related learning. The important message here is that although loss of some knowledge over time is inevitable either following leaning by rote or learning meaningfully, the loss is slower after meaningful learning and the deleterious effects on new learning that can result from forgetting after rote learning does not occur after obliterative subsumption occurs. Another factor that operates to reduce obliterative subsumption is better organization of ideas in cognitive structure. When knowledge is better organized, and perhaps with more important cross-links, loss of information is retarded, and the power to use the information in new contexts is enhanced.

Progressive Differentiation

As new meaningful learning occurs, concepts and propositions in cognitive structure become more precise, more widely applicable in facilitating new learning or problems solving, and better discriminated from similar but distinct ideas. Thus studies comparing the knowledge and problem solving of experts, as contrasted with novices in a field, show that the experts have much better organization of their knowledge and tend to use more general, more inclusive concepts at the outset. Novices often fixate on details and use more specific, less general concepts, frequently leading to faulty "solutions" (Bransford, Brown, and Cocking, 1999). The use of concept maps can facilitate better knowledge organization and improved expertise

Integrative Reconciliation

This is the process whereby the learner clarifies ideas that may have been unclear or even contradictory, with the result that concept and propositional framework that is developed is more precise and explicit. For example, in grade two, Paul was not sure what a smell was made of and incorrectly thought it may be made of oxygen or something. By grade twelve, he knows that oxygen is part of air and the smell from mothballs comes from molecules of mothballs that sublime and rise in the air. Other parts of his knowledge structure show evidence of integrative reconciliations to form a highly organized, well integrated, and relatively highly precise knowledge structure.

Integrative reconciliation is a very important result of relatively high levels of meaningful learning. Research has shown that faulty conceptions are rarely if ever corrected when learning is predominately by rote (Novak, 2002). Interviews with students learning science by rote often show that they hold conflicting ideas and are unaware of the contradictions they may express in interviews or in seeking problem solutions. Baron and Goldman (1994) found that students repeat correct answers about insulation provided by different kinds of cups, but then evidence the same misconceptions in a second related unit. The Private Universe Project (Schneps, 1989) has video tapes showing a number of instances where students learn the "correct" answer to a given problem, then later manifest the persisting misconception when interviewed about a related problem. Needless to say, this leads to faulty problem solving, failure to transfer knowledge to new settings, and no facilitation of future related learning. Creative insights are virtually impossible, since the faulty knowledge structures simply cannot function to see new creative solutions to problems.

Superordinate Learning

While subsumption is the more common learning process by which new concepts are assimilated into cognitive structure, occasionally a new concept or proposition is acquired that is more general and more inclusive than the previously learned concepts or propositions. For Paul, one clear case of superordinate learning was the acquisition of the concept of molecule. We see in the concept map for Paul in grade twelve that this concept not only holds a superordinate position, replacing his earlier concept of "tiny chunks", but he has also integrated ideas about energy with this concept, especially concepts dealing with the nature and role of heat energy. He sees that the states of matter are a function of the amount of heat energy stored in molecules. The concept of energy is also becoming more like a superordinate concept and this might have been more evident if the interviews probed more deeply his understanding of energy. As noted earlier, experts differ from novices in the number and quality of superordinate concepts they have developed and their facility in using these concepts in new applications or in new knowledge acquisition. A characteristic of learners who learn mostly by rote is that they have fewer superordinate concepts and these are less fully differentiated. Moreover, rote learners often express faculty or incorrect propositions, or even contradictory propositions when interviewed.

The Rote – Meaningful Continuum

It should be obvious from the above discussion that individuals will vary greatly in the quantity and quality of their knowledge structure in any given domain. They also vary in the motivation to seek to integrate new concepts and propositions with existing knowledge and in their metacognitive skills for doing this. Metacognition, simply stated, is knowledge about gaining knowledge and we shall explore this topic more extensively below. The consequence of individual differences in relevant knowledge, motivation and metacognition means that for any given learning episode, individuals may vary from almost pure rote learning to very high levels of meaningful learning. This is illustrated in Figure 5. While the primary determinant of the level of meaningful learning reside with the learner, teachers and coaches can influence this through the kind of instruction provided and the kind of assessments utilized. For example, if learners are required to use concept maps as part of their learning, and perhaps asked to do concept maps in the assessment of learning, these practices strongly encourage higher levels of meaningful learning.