
UNIT 19 BEHAVIOURAL ECONOMICS AND DEVELOPMENT*

Structure

- 19.0 Objectives
- 19.1 Introduction
- 19.2 What is Behavioural Development Economics?
- 19.3 Behavioural Health
- 19.4 Behavioural Education
- 19.5 Behavioural Economics in Pro Environment Behaviour
 - 19.5.1 Behavioural Insights on Environment
 - 19.5.2 Policy Implications for Pro-environment Behaviour
- 19.6 Let Us Sum Up
- 19.7 Key Words
- 19.8 Some Useful Books
- 19.9 Answers or Hints to Check Your Progress Exercises

19.0 OBJECTIVES

After studying this unit, you will be able to:

- state how Behavioural Development Economics is different from the traditional development economics;
- outline the concepts used in Behavioural Economics;
- elaborate on why people do not spend on their preventive healthcare;
- indicate ways for improving individual investment in preventive health;
- highlight the main concerns in private spending on Education with explanation to address them;
- enumerate the factors providing behavioural insights on environmental impact by peoples choice in general; and
- list policy suggestions for effecting pro-environmental behaviour by the people.

*

19.1 INTRODUCTION

Traditionally, Development Economics has considered individuals to be rational decision makers. This means they consider the costs and benefits of their decision as self-interested individuals. However, over time it has been realized that behind their choice of decisions, individuals are not motivated purely by rational factors but are also influenced by mental models and social networks. Behavioural Economics has contributed in understanding such non-rational aspects of individuals. This has led to the development of an independent sub-field called 'behavioural development economics'.

Behavioural Development Economics examines the influence of psychology and sociology in the decision making process of individuals. The two questions it seeks to answer are: (i) how does preference formation take place? and (ii) how can the issues of behavioural biases in decision making addressed? It believes that understanding (i) how people think and (ii) how social interactions influence their actions, helps in designing and implementing the development policies. In other words, unlike traditional development economics, it gives importance to factors like social conditions, circumstances, networks, etc. The approach of behavioural economics is aimed at complementing the approaches of traditional development economics with policies more suitable to the needs of the society.

The importance of psychological and social underpinnings of behaviour in Development Economics was highlighted in a World Bank Report of 2019 on 'Mind, Society and Behaviour'. The report discusses three principles of human decision making viz. thinking automatically, thinking socially, and thinking with mental models. The first principle is about two processes that people employ while thinking: (i) a fast, automatic and associative and (ii) a slow, effortful and deliberate. Secondly, human beings thinking is influenced by social preferences, social networks and social norms. They often follow others so as to fit into a group. Thus, unlike making an assumption of self-interested behaviour, people are considered to make social preferences for fairness and reciprocity. People want social recognition and are therefore prone to fulfilling the social expectations. Finally, while thinking, people use mental models based on aspects like (i) pre-existing concepts, (ii) categories, (iii) stereotypes, (iv) worldview, etc. These mental models influence what people perceive from a given situation and how they should act on it. These three principles about how an individual thinks

to arrive at decisions are used in behavioural development economics to develop a new set of approaches useful in policy making.

19.2 WHAT IS BEHAVIOURAL DEVELOPMENT ECONOMICS?

Behavioural Development Economics accepts that individuals cannot be always rational. This means they have a limit to their self-control and often apply heuristics to take complex decisions. It suggests that the small and low-cost behavioural changes in policy can lead to significant changes in the achievement of development goals.

People make decisions on the basis of their subjective interpretation of the past and the present and assumptions made about the future. Hence, they are often irrational and biased. Behavioural Development Economics suggests the use of nudge policies by incorporating the individual biases in order to steer their decisions towards a desired direction. Nudge policies lie between laissez faire and incentives. They impact the choice of the individuals while preserving their freedom to choose. Reminders, non-monetary gifts, public notices, making products conveniently available, inspirational messages, cash transfers are some of the low-cost nudges used in this regard. In India, The Swachh Bharat Mission (SBM) and the Beti Bachao Beti Padhao (BBBP) scheme have employed insights from Behavioural Economics. Similarly, in Kenya, weekly text messages sent to remind patients to take their HIV drugs improved the rate of drug adherence to 53% from a baseline of 40%. Another example of a successful application of nudging is increase in immunization rate among children in India. This was observed after providing small non-financial incentives and prizes like lentils and metal dinner plates along with a reliable immunization provider. Behavioural Development Economics has been extremely useful in shedding light on issues in areas like health, education, environment, poverty reduction, savings, technology adoption, etc. We will discuss the insights from Behavioural Development Economics in some of these areas in the subsequent sections. Before that, let us first familiarise ourselves with some of the concepts of Behavioural Development Economics frequently used.

- 1) **Present Biased**: When trading off between present and future, individuals have a tendency to give more weight to payoffs in present time. This leads to

time discounting which may in turn lead to sub-optimal decisions. Present bias leads to reduced investment in preventive health, education, savings, etc.

- 2) **Non-standard Beliefs:** Individuals tend to overestimate their own capabilities which lead to overconfidence in decision making. Overconfidence, in most cases, leads to irrational decision making. It may lead to lower savings, less investment in insurance or health, etc. Also, individuals often extrapolate from small numbers and generalise it. For instance, if a person is healthy today, the 'Law of small numbers' bias makes him assume that it will remain this way in future also. This may lead to lower investment in preventive health.
- 3) **Loss Aversion:** People have a tendency to prefer avoiding losses to acquire equivalent gains i.e. people give more weight to losses than gains. Loss aversion negatively impacts investment in decision making.
- 4) **Lack of Information:** Failure to seek or share valuable information can also cause biased beliefs among individuals. Envy or pride deter people from sharing information. Likewise, fear of shame stops people from seeking information. Such issues cause sub-optimal decision making.
- 5) **Projection Bias:** People exaggerate the degree to which their future tastes will resemble their current tastes. This makes them unable to making provision for sickness in future. It leads to lower investment in health.
- 6) **Limited Attention and Memory:** This affects the ability to adapt to changing environment. It reduces investment in preventive health or education.
- 7) **Framing:** Decisions do not only depend on the expected results but also on the way the result is presented. Thus, it is very important to set the 'right' default.
- 8) **Heuristics:** Individuals use a variety of 'rules of thumb' in order to reach a decision quickly. Four types of heuristics are recognised in this regard. They are:
 - i) **Anchoring and Adjustment Heuristic:** Anchoring is a cognitive bias where people rely on facts provided before a decision or an estimation is made. The facts may be completely unrelated, but research shows that they have significant impact on the decision.
 - ii) **Representativeness Heuristic:** The representativeness heuristic is a mental shortcut that individuals use when dealing with uncertain

situations. People take decisions by assessing how similar is a situation to an existing mental prototype. This may lead to projection bias.

- iii) **Availability Heuristic**: Individuals assess the probability of occurrence of the event based on the ease with which it comes to the mind. This may lead to a cognitive bias as a recent event may not be the best representation of the reality. For instance, if recently a neighbour has experienced loss in an investment, an individual may overweigh the probability of loss in his investment decision even when an investment opportunity is good.
- iv) **Affect Heuristic**: This helps an individual to assign the probabilities of occurrence of an event based on how a person feels about it. If a person feels good about it, higher probability is assigned to good consequences and vice versa.

To summarise, the three tenets of behavioural economics are (i) bounded rationality, (ii) bounded willpower and (iii) bounded self-interest. They together make individuals anchor irrelevant information, prefer status quo, present biased, loss averse and heuristic. All these lead to sub-optimal decision making.

Check Your Progress 1

- 1) What is Behavioural Development Economics?

.....

.....

.....

.....

.....

.....

- 2) State the assumptions of traditional Development Economics.

.....

.....

.....

.....

.....

.....

3) Fill in the blanks:

- a) _____Heuristic deals with probability of an event based on the ease with which it comes to mind.
- b) _____heuristic make people take decision on the basis of how they feel about it.
- c) People exaggerate the degree to which their future tastes will resemble their current tastes because of _____ bias.

4) What are the various non-standard beliefs that individuals can have?

.....

.....

.....

.....

.....

.....

19.3 BEHAVIOURAL HEALTH

Health is the most important asset for an individual. As such, people are expected to take rational decisions on health like following healthy habits, getting vaccinated, etc. However, studies have shown that individuals often have difficulty in taking decisions and take decisions which are not in their best interest. For instance, not enrolling in health insurance, engaging in behaviour harmful for health like smoking, etc. People experience difficulty in decision making when they are faced with uncertain situations and there is a trade-off between the present cost and the future benefits. They also have problem of self-control as observed in their giving more weight to the present enjoyment over future well-being. In other words, people have 'status quo bias' and have resistance to change even if it is the best thing to do. People also either overestimate or underestimate the probability of certain events. For instance, most people believe that they will not suffer from any life-threatening ailment like cancer or they are overoptimistic about future. This deters them from taking medical or life insurance. Another recent example is that of Covid 19 vaccine. World over, governments were publicising vaccine programmes and offering free vaccines. But based on their past experiences or personal bias, many people did not get vaccinated. Traditional economic theory does not explain such irrational behaviour. It assumes that people are rational and they take decisions in a way as

to maximise their utility. This means, people collect all the available information, analyse it and then identify what is in their best interest. This is not always the case. People do behave in an irrational manner as is evident from the above examples. In this section, we are studying how Behavioural Economics examines such health related behaviour i.e. why consumers are not always rational and are in fact influenced by various cognitive and psychological biases while taking decisions on their health.

One of the major issues in health is low investment in preventative health. Preventive health is the use of standard proactive health screenings for preventing future illness and treatment. Such investment in preventive healthcare can reduce the burden of disease minimising the associated risk factors. Worldwide, chronic diseases are a major cause of death and disability which in turn leads to increased health costs. Hence, investment in preventive health is recommended for improving health outcomes. Some examples of preventive healthcare are: (i) regular blood test for sugar and cholesterol, (ii) blood pressure monitoring, (iii) cancer screening, etc. Owing to a mechanised life style, associated with stress and unhealthy food habits, investment in preventive healthcare has become highly important for early detection of diseases. Behavioural Economics provides insight into the factors contributing to people making low investment in their preventive health. These are discussed below.

Present Bias: Present bias is an important reason behind low investment in preventive health. It operates through (i) procrastination (i.e. postponing something to be done today for tomorrow) and (ii) liquidity constraints. Healthy behaviour or health investment require trade-off between immediate costs and delayed benefits. Immediate costs are not only financial costs but includes psychological cost and hassles. For instance, going to a doctor for check-up, going for vaccination, exercising or other healthy behaviours require efforts. But their benefits accrue much later. Time-limited incentives and discounts may help reduce procrastination. In case of healthy behaviours without timelines (like starting exercising, leaving junk food), people face self-control problems and often procrastinate. Liquidity constraints also make people defer healthy behaviour involving cost because they do not find it to be of emergent need. For instance, a person having limited money would prefer to spend it on necessary goods than buying health insurance.

Lack of Self-control: People face lack of self-control when taking decisions about health. For instance, a dessert like kheer on dinner table is so salient for a diabetic that he ignores its invisible harmful effects in future. Self-control problem represents bounded will power of an individual. Bounded will power means that individuals often take actions that they know to be in conflict with their own long-term interests but they still end up doing it. For instance, most smokers accept that they would like to quit and many might even spend money to join a de-addiction camp or buy medicine. Behavioural economics suggests for removing the temptation, choices should be so designed that people are encouraged to take healthier decision. For instance, Richard Thaler, regarded the father of Behaviour Economics, suggests that in order to encourage children to eat healthier meals in canteen, healthier food should be kept at eye level and unhealthy options at the lower racks.

Biased Beliefs: Quite often, people have inaccurate beliefs about the probability of falling sick and its likely expense in case they fall sick. Underestimation of this probability negatively influences investment in preventive health. Future uncertainty and difference in individual risk factors are the major sources of biased beliefs. For instance, when a person is in 20s, he usually doesn't consider expenses on heart surgery, kidney failure, etc. in near future. But people that young also might suffer from such diseases. This biased belief about self leads to sub-optimal decision making. People also have inaccurate beliefs about future returns on health investments. Underestimation of future returns leads to less than optimal investment in preventive health.

Statistical Errors: Individuals have a tendency to overestimate or generalise from small sample and under-infer information available from large sample. Such statistical errors lead to inaccurate beliefs which in turn leads to irrational decision making. For instance, during Covid 19, there were large number of information campaigns for promoting vaccines, wearing masks, etc. But based on their biased beliefs, many people did not give much importance to these campaigns. They wore masks (many times in wrong way) only to avoid fines. Thus, people under-inferred from these campaigns. Similarly, a negative experience associated with vaccine might lead to a negative generalisation about vaccines.

Emotions: Decision making is often affected by moods and emotions of a person. There are greater chances of taking irrational decision when a person is experiencing emotions of sadness or fear. For instance, when a family member is sick, there are greater chances of a person choosing a wrong insurance or medical provider. In such cases, a person may not be in the best state of mind to compare the various medical service providers to take best decision.

Salience: Decision making is not only influenced by presentation of information but how salient that information is. This means, information must be made noticeable in order to influence the decision. For instance, placing vaccination promoting banners in the most prominent places, timely presentation of information like reminders to enrol in health programme, etc. can lead to desired decision making.

Cognitive Load and Decision Fatigue: Individuals experience heavy cognitive load while taking decisions. This is because their capacity to process complex information and deal with uncertain environment is limited. Such cognitive load and decision fatigue can lead to sub-optimal decision making about investment in health. The cognitive bias can be dealt with by presenting information and framing choices in a simple manner.

Status Quo Bias: When one is in possession of anything, they overvalue it and hold on to it even when other options are more viable. Such a status quo bias leads to irrational decision making. Because of this, people may show the tendency to not invest in preventive health. For instance, people prefer to stick with current medical service provider even though another provider might offer more coverage at a lower price. Such status quo bias is due to the existing familiarity with the rates, terms and conditions of offer, etc.

Check Your Progress 2

- 1) How does present bias lower investment in preventive health?

.....

.....

.....

.....

.....

.....

- 2) In what ways the issue of self-control to improve healthy behaviour can be influenced?

.....

.....

.....

.....

.....

- 3) What is meant by the status quo bias in preventive healthcare? Illustrate with the help of an example.

.....

.....

.....

.....

.....

19.4 BEHAVIOURAL EDUCATION

One of the most important decisions that people make in their lives is how much time and money they want to invest on their education. It is an important investment decision because (i) it not only equips an individual with the mental tools for better decision making (ii) but also opens up job opportunities. This, in turn, improves the overall welfare of an individual. Education is also beneficial for society and the nation as a whole. Society is benefitted by (i) the higher contribution of educated persons to the GDP and (ii) development of a strong value system among individuals. Today, when the world is moving towards a knowledge society, a country needs its citizens to acquire specialised skills through education. The New Education Policy, 2020, aims at increasing the Gross Enrolment Ratio in higher education (including vocational education) from 26.3% (in 2019) to 50% by 2035.

Yet, it is observed that in many cases, that the private educational investment by individuals is less when compared to an optimum level. This is puzzling for conventional economics which assumes individuals to be rational decision makers. For instance, researchers have observed that a sizeable proportion of students dropout at higher education level where the return on investment is

maximum. Principles of Behavioural economics can be used to explain these deviations from the neoclassical standard human capital model. Insights from Behavioural Economics is once again useful to identify the factors that contribute to making people spend less on education. It is helpful to understand the barriers in achieving educational goals for an individual as well as the country. This can help in formulating the right policies. Some of the behavioural explanation to the anomalies observed in investment in education are as follows.

Present Bias: Investment decisions about education involve trade-offs between present cost (e.g. foregoing current income, time spent, fatigue or boredom from studies) and future benefits like increased earnings. These inter temporal trade-offs exhibit time inconsistent preferences in the sense that individuals behave in a present biased manner i.e. they apply additional discount factor for the present as compared to the future payoffs. They over weigh the present costs over future benefits showing a short sighted or myopic vision to their future earnings. Often, the immediate costs associated with investments are known whereas, the future benefits are uncertain and unknown. In such a case, mind has a tendency to intuitively over-emphasise the present costs and under-emphasise the future benefits. Called as the System 2 thinking, it is an effortful, slow and deliberate thinking. It requires more effort to analyse the whole information leading to sub-optimal decision making. For instance, studying for exams, preparing assignments, appearing in examination, etc. has present upfront costs to be incurred vis-a-vis the lost opportunity cost of hanging out with friends, playing games, etc. In many cases, students prefer to procrastinate studies as they over estimate the costs of studying in comparison to the future benefits that it entails.

Behavioural approach suggests that in order to overcome present bias, incentives can be provided for educational attainment. For instance, there are various incentive schemes in India for promotion of education of girl child like 'Balika Samridhi Yojana' which provides financial incentives to girl children and their families who are below poverty level. Other similar schemes are Beti Bachao Beti Padhao, CBSE Udaan scheme, etc. The issue of present bias in students can be addressed by motivational efforts to duly weigh the present costs and future benefits. Another approach to address the present bias is to offer immediate benefits to offset immediate costs. For instance, the mid-day meal scheme, free uniforms, money transfers to the students in government schools, etc. are the incentive schemes adopted in India to reduce the immediate costs.

Available Heuristic: Heuristic refers to a mental shortcut to arrive at a decision by using information that comes to mind quickly and easily. Many times, students and parents rely only on readily available information even when other relevant information is available free of cost. Automatic thought process (i.e. System 19) rely on immediately accessible information for taking decisions. For instance, when it comes to higher education, people assume that it is costly and do not look out for more information like scholarships. This deters many individuals from going for higher education.

Self-Control Problem: Behavioural Economics suggests that individuals have non-standard beliefs like (i) over-confidence about self-abilities, (ii) self-control, (iii) non-standard preferences like time inconsistent preferences (i.e. not accepting that if they procrastinate today, they will procrastinate in future also), etc. This leads to non-standard decision making like low investment in education by giving over emphasis to emotions and cognitive biases. Even when it comes to efforts to improve grades and learning outcomes, large number of students study insufficiently i.e. they procrastinate on exam preparation even when they know that they will repent later. There can be various approaches to address this problem like the usage of commitment devices. Devices like setting targets and deadlines, intrinsic and extrinsic motivation, etc. can be used by teachers or parents to reduce procrastination problem in children.

Check Your Progress 3

- 1) Why do people invest less than optimum on education?

.....

.....

.....

.....

.....

.....

- 2) What are the ways by which policies can encourage students to desist from procrastination?

.....

.....

.....

- 3) In what way does the availability of heuristic (mental shortcuts) deter people from investing more on higher education?

19.5 BEHAVIOURAL ECONOMICS IN PRO ENVIRONMENT BEHAVIOUR

The issue of climate change has become an important concern for all the policy makers across the globe. According to the UN's latest assessment (2022), many of the impacts of global warming are now simply 'irreversible'. Many places have experienced changes in rainfall, resulting in more floods, droughts, or intense rain. Sea level is rising, oceans are warming and becoming more acidic, ice caps are melting. The impact of our actions is threatening our future severely. However, UN also recognizes that there is a small window left to avoid the worst.

Research shows that people treat environmental issues as distant risks and thus, non-urgent. Because of this, people do not find the need to make efforts or allocate resources to reduce environmental impacts. Many a times, even if people realize the need for making changes, they are not aware of the costs or action required on their part to mitigate the effects. Conventional Economics is not able to address the issue as it assumes people to be rational taking decisions which is in their best interest. Some insights from Behavioural Economics can be used to understand the sources of irrational behaviour towards environment. In its light, some policy suggestions can be drawn to encourage pro-environment behaviour. Pro-environment behaviour can be understood as behaviour that reduces the negative impact on environment or positively influence their behaviour.

Psychological and sociological processes play a major role in encouraging such behaviour among people. Change can be brought about only when people see the

need to bring the change. In the context of environment, this means people must understand the urgency of environmental crisis. They have to be motivated to make a change. Pro-environmental behaviour usually requires trade-off between personal interest and collective interest. In making such decisions, individuals are subjected to systematic biases.

19.5.1 Behavioural Insights on Environment

Some of the biases that affect an individual when it comes to pro-environmental decisions are categorised as follows.

Perception of Environmental Problems: Uncertainty about future outcomes of such decisions is the major source of this bias. For instance, any negative impact of our behaviour (e.g. wasting electricity, water) is not directly visible as it occurs over a period of time. This explains why most people are not alarmed about the environmental damage their actions would cause.

Resistance to Change or Status Quo Bias: People have a tendency to prefer present status or condition as compared to the uncertain future. Thus, any change in choices that people make is difficult to implement. It causes procrastination or decision deferral. Status quo bias explains why people are reluctant to invest in environment friendly technologies like solar panels, electric vehicles, etc.

Present Bias: Since environmental impacts are often seen in long term, people are present biased. They overweigh immediate concerns as compared to the future's. That is the reason why even when we all know that climate change is a big issue and will have massive impact on future generations, we are not able to take present pro-environment decisions. One of the major causes of present bias is future uncertainty. People are never sure that their one action can have a larger impact on environment. Along with present bias, people have inconsistent time preferences.

Lack of Knowledge and Understanding: Even if people feel the sense of urgency for the pro-environmental behaviour and want to take corrective action, they do not know how to go about it or what action to take. They lack the understanding and knowledge of actions and their impacts. Through awareness programmes and feedback mechanism, policy makers encourage pro-environmental behaviour among people.

Social Norms: Social norms play a major role in encouraging pro-environmental behaviour. Environmental issues represent social dilemma i.e. choosing between self-interest and interest of the society. In the environmental context, if everyone undertakes pro-environmental behaviour, everyone in the society, including future generations, would benefit. However, if one individual does not cooperate, there is no significant impact on environment. But it has the effect on others to make everyone think like that, making it cumulatively harmful for the environment.

19.5.2 Policy Implications for Pro-Environment Behaviour

Environmental decisions are influenced by external factors (like financial incentives), internal factors (like personal motivation), and social factors (like cultural norms). Effective environmental policy design requires understanding of various insights discussed in the previous section. Thus, over the past few decades, nudging is used to encourage desired behaviour. Nudges are a special set of policy instruments used to encourage or forbid actions. Nudging pushes people in a particular direction. They mostly encourage people to take desired decisions without depriving them of the freedom to choose. Some of the policy implications that can be drawn from Behavioural Economics in this regard are as follows.

Default: People tend to have a preference for an option that does not require any action. For instance, in purchasing efficient yet expensive technology, as a default option people generally opt out. Research has found out that when an average size of plate was reduced in a buffet, and people had to go to the counter again to refill it, food wastage was significantly reduced. Defaults are a powerful mechanism to influence the majority behaviour for three reasons. First, they require no action, no effort and thus no cognitive load of decision making. Second, there is the factor of 'reference dependence'. This means individuals treat default as a reference and treat any departure from the default as loss. In other words, since individuals overweigh losses, they usually like to stick to the default option. Third, people treat default options as recommendations from experts and learned people. In other words, defaults are like 'implied endorsements'.

Choice Architecture: This refers to the design or the way in which a choice is presented to decision makers. The way in which a problem is framed, or options

presented, can highly influence the outcome. For instance, statement like ‘you can lose Rs. 500 by not switching off extra lights at your home’ is more effective than saying ‘you can save Rs. 500 by switching off extra lights at your home’.

Social Norms: When taking decision, people are not only influenced by financial incentives or benefits. They are also influenced by the actions and behaviour of others. Behavioural Economics recognizes social norms as an important tool to encourage people to adopt pro-environmental behaviour. For instance, if people are told about energy conservation by their neighbours, they are most likely to try and conserve. Though conventional economics assumes people to be self-interested, people also often care about the impact of their behaviour on others and vice versa. Thus, policy makers could use social norms to implement policies that the society likes.

Credible and Salient Information: Salient and credible information decreases the choice complexity facilitating in making an environment friendly choice. This means, well-presented information acts as a nudge for people to take a right decision. For instance, if smart meters at home display current energy consumption, it encourages people to reduce electricity wastage.

Changes in Physical Environment: This is especially useful when dealing with cases like waste handling, recycling, etc. For instance, by placing bins at right places which are easy to find, people can be encouraged to stop throwing waste on the roads.

Check Your Progress 4

- 1) How does the perception of environmental problems affect the behaviour of individuals?

.....

.....

.....

.....

.....

.....

- 2) What is meant by ‘status quo bias’ in the context of pro-environment behaviour?

-
-
-
-
-
-
- 3) List some policy suggestions for encouraging pro-environment behaviour.
-
-
-
-
-
-

19.6 LET US SUM UP

Behavioural development economics is a sub field of Development Economics. It studies the influence of psychology and sociology in the decision making process of individuals. The approach is to examine the preference formation in individuals. It postulates that understanding how people think, and how social interactions influence their actions, is useful for designing and implementation of developmental policies. The unit has specifically dealt with the insights of Behavioural Economics on health, education and environment. Some of the principles of Behavioural Economics that have been used to explain these three central issues in the unit are: present bias, non-standard beliefs, loss aversion, lack of information, projection bias, limited attention and memory, heuristics, etc. For encouraging pro-environment behaviour among people, suggestions based on behavioural principles are cited in the unit. These include: choice architecture, use of social norms, providing credible and salient information, etc. In sum, Behavioural Development Economics suggests that by understanding the psychological and sociological underpinnings behind every irrational behaviour, policy makers can nudge people towards desired behaviour without affecting their free will.

19.7 KEY WORDS

Heuristic	Refers to mental short cuts taken by individuals while taking decision based on just how a person feels about.
Choice Architecture	Refers to the design of different ways in which choices can be presented to decision makers.
Cognitive Load	Refers to the amount of information that working memory can hold at one time.
Loss Aversion	Investors find losses to be more painful as compared to the pleasure from the gains. Loss aversion makes people prefer things as they are.
Nudge	Refers to policies that impact the choice architecture of the individuals. They steer their behaviour in a desired direction while preserving their freedom of choice.
Present Bias	A tendency of people to give stronger weight to payoffs that are closer to the present time when considering trade-offs between present and future.
Status Quo Bias	A bias where people have preference for the current situation causing individuals to stick with a sub-optimal choice.
Time Discounting	The tendency of people to discount returns or payoffs as they approach in future making them present biased.

19.8 SOME USEFUL BOOKS

- 1) Demeritt, A., & Hoff, K. (2019). The Making of Behavioural Development Economics. *History of Political Economy*, 50 (S19), 303-322.
- 2) Kremer, M., Rao, G., & Schilbach, F. (2019). Behavioural Development Economics. In *Handbook of Behavioural Economics: Applications and Foundations 19* (Vol. 2, pp. 345-458). North-Holland.
- 3) Ranyard, Rob (2019). Economic Psychology. British Psychological Society and Wiley. Chapter 27, Economic Psychology and Pro-Environmental Behaviour (pp. 435-450).
- 4) Rice, T. (2019). The behavioural Economics of Health and Healthcare. *Annual Review of Public Health*, 34, 4319-447.

19.9 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Behavioural Development Economics studies the problems of economic development by drawing inputs from psychology and sociology in decision making and preference formation.
- 2) Traditionally, Development Economics has considered individuals to be rational decision makers i.e. they consider all possible costs and benefits from a self-interest view and then make a thoughtful and rational decision.
- 3)
 - a) Availability
 - b) Affect
 - c) Projection
- 4) Overconfidence, extrapolation from small numbers

Check Your Progress 2

- 1) Present bias operates through procrastination and liquidity constraints. People procrastinate because they compare present cost with future benefits. Liquidity constraints make people defer healthy behaviour involving cost because they do not find it to be of urgent need.
- 2) Behavioural Economics suggest removing the temptation by designing the choices in a way that people are encouraged to take healthier decision.
- 3) Individuals have a tendency to stick to current state of affairs. Because of this, people show a tendency to not invest in preventive health. For instance, people prefer to stick with current medical service provider even when another provider might offer more coverage at a lower price.

Check Your Progress 3

- 1) People invest less on education because of various biases like present bias, availability bias, lack of self-control.
- 2) Devices like setting targets and deadlines for intrinsic and extrinsic motivation can be used by teachers or parents to reduce procrastination problem in children.

- 3) Many times, students and parents rely only on readily available information even when other relevant information is available free of cost. Automatic thought process i.e. System 19 rely on immediately accessible information for taking decisions. For instance, when it comes to higher education, people assume that it is costly and do not look out for more information like scholarships etc. This deters many individuals from going for higher education.

Check Your Progress 4

- 1) Uncertainty about future outcomes of decisions are the major source of such a bias. For instance, a negative impact of our behaviour (like wasting electricity, water) is not directly visible. This is because the impact on environment occurs over a period of time. Thus, most people are not alarmed about the environmental damage their actions might cause.
- 2) This refers to the tendency of people to prefer present status or condition as compared to the uncertain future.
- 3) Choice architecture, social norms, credible and salient information, etc.