

PART 1

Fundamentals

1 Introduction to Economic Psychology: The Science of Economic Mental Life and Behaviour



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LEARNING OUTCOMES

BY THE END OF THIS CHAPTER YOU SHOULD BE ABLE TO:

1. Understand and describe the nature, origins and scope of economic psychology.
2. Discuss the relationship between economic psychology and behavioural economics, and their perceived similarities and differences.
3. Give examples of a range of studies and findings from recent economic psychology research.

1.1 INTRODUCTION

Economic psychology has important contributions to make in a changing economic world in which individuals and households are expected to take more responsibility for their own economic well-being. Consider first that the international financial crisis of 2007–2008, and the subsequent Great Recession, were not predicted by mainstream economics. One reason, argued Paul Krugman, was that most economists had ‘turned a blind eye to the limits of human rationality’ (2009, p. 1). Economic psychology has an important contribution, then, to provide economics with a realistic and insightful understanding of human rationality in the economic domain. This extends to other psychological factors that may play a role in financial crises; our emotional tendencies, such as fears in the face of financial risk, and our social nature, including our tendency to compare ourselves with and to follow others (Gärling, Kirchler, Lewis, & Van Raaij, 2009). Consider, second, that both household and personal economic decision-making are becoming increasingly complex and have significant consequences for our quality of life and psychological well-being. Decisions about saving for a rainy day or for retirement, borrowing to improve today’s lifestyle, how to manage tax affairs or financial risks, how to make sense of advertisements for loans, savings and insurance, are all issues that economic psychology can contribute towards understanding and improving. Consider finally, that people’s thoughts and feelings about material possessions, money, prices, the economy and inflation are at the core of economic mental life, and that the psychology of such things is fascinating and worthy of study for its own sake.

Our description of economic psychology as the *science of economic mental life and behaviour* reflects a contemporary approach to psychology, conferring equal status on the twin endeavours of understanding mental life and understanding behaviour. As is well known, the history of psychology has been characterized as a series of paradigm shifts, or fundamental changes in perspective. For example, the early twentieth century saw a shift from introspectionism’s reliance on self-reports of mental activity to behaviourism, which eschewed such methods and concepts to focus on observable behaviour. This held sway until what became known as the cognitive revolution from the mid-1950s. Once again, evidence from self-reports of mental experience was deemed admissible and mental elements were accepted as the nuts and bolts of cognitive theory. One of the leading players in this development was George Miller (1962a) through his work, for example, on our capacity to process information. He wrote an inspiring introductory text which signalled psychology’s cognitive shift. He called it *Psychology: The Science of Mental Life* (Miller, 1962b), from which our description of economic psychology is derived. It should be noted that although our definition also encompasses behaviour, it signals a distinctive orientation from the burgeoning, related field of behavioural economics which primarily focuses on behavioural prediction.

Box 1.1 summarizes further defining characteristics of economic psychology. First, it is a *branch of applied psychology*, recognized as such by the International Association of Applied Psychology, in which both theory and application are central. This means that economic psychologists take seriously the responsibility of providing the basis for research-informed policies to support people’s economic well-being and the health of the economy. Second, it identifies an important characteristic of economic

Box 1.1 Defining characteristics of economic psychology

- The science of economic mental life and behaviour
- A branch of applied psychology
- The study of 'how individuals affect the economy and how the economy affects individuals' (Lea, Tarpy, & Webley, 1987, p. 2)
- An interdisciplinary field of study

psychology famously broadcast in the influential textbook, *The Individual in the Economy: A Survey of Economic Psychology*, by Lea, Tarpy, and Webley (1987). It is the study of 'how individuals affect the economy and how the economy affects individuals' (p. 2). Consequently, it is an interdisciplinary endeavour, with increasingly fruitful collaborations with mainstream and behavioural economics and other biological and social sciences.

In Section 1.2, we describe the emergence of economic psychology as a discipline, including key developments in theories of economic decision-making, and we consider the relationship between behavioural economics and economic psychology. Following this, our introduction to the field reflects on the topics discussed in each part of the book, beginning with an outline of the main research methods that have been used (Part 2 of the book). We next discuss the various aspects of economic mental representations considered in Part 3. We then move on to aspects of personal and household financial decision-making and economic activity (covered in Parts 4 and 5). Finally, we introduce some of the economic-psychological issues related to life-span development and to society that are covered in Parts 6 and 7.¹

1.2 THE EMERGENCE OF THE DISCIPLINE

1.2.1 From Adam Smith to George Katona

The origins of economic psychology can be traced to Greek philosophers and, more recently, to seventeenth-century economists who reflected on psychological matters, notably Adam Smith. Twenty years before writing *An Inquiry into the Nature and Causes of the Wealth of Nations* in 1776, Smith had published *The Theory of Moral Sentiments*, considered by some to be the starting point for economic psychology (e.g., Descouvières, 1998). He explored the concept of self-love and the importance of being able to take others' roles, as in the social interactions necessary for trading. In addition, he claimed that happiness and well-being were derived from the happiness and well-being of others, and explored several psychological concepts, including sympathy, emotions, and virtues in general (Barracho, 2001; Kirchler & Hoelzl, 2003; Wärneryd, 2005a).

Besides Adam Smith, other economists of the eighteenth and nineteenth centuries wrote about psychological aspects of economic phenomena. Jeremy Bentham (1748–1832) developed Smith's concept of self-love and characterized utility as the permanent hedonistic pursuit of pleasure and avoidance of pain, along with calculations to maximize utility (MacFadyen & MacFadyen, 1986; Wärneryd, 2005a). John Stuart Mill (1806–1873) conceived the still respected (among mainstream economists) model of the *homo economicus*, a rational individual who makes rational decisions that maximize utility, is self-interested, capable of learning from experience, and with stable, consistent preferences (Lea et al., 1987; Wärneryd, 2008a). Mill believed that economics should be based on 'an obvious psychological law' (the universal preference for a greater gain as opposed to a smaller one). W. Stanley Jevons (1871) derived marginal utility theory from Mill's model, while adding deductive mathematics to establish some basic assumptions, later tested empirically. Finally, in the 1870s, Karl Menger and his collaborators, Böhm-Bawerk, von Wieser, Sax and others, formed what became known as the *Austrian Psychological School*, or the *Marginalist School*, that emphasized the importance of subjective elements in the economy. They claimed that a psychological analysis ought to provide the foundation for economics, arguing that introspection was the only method necessary to examine needs and attributions of value (Descouvières, 1998; Reynaud, 1967). In addition, thinkers throughout the centuries have routinely observed and discussed human relations involving choices, exchanges, ownership, loans, payments, investments, planning and other matters involving the allocation of scarce resources (Lea et al., 1987; Wärneryd, 2005a).

Economic psychology as a discipline can be traced to the late nineteenth century (Ferreira, 2008; Wärneryd, 2005b). The earliest record of the term can be found in an 1881 article in the journal *Philosophical* by the French jurist and social thinker, Gabriel Tarde, about the relationship between psychology and economics (Barracho, 2001; van Raaij, 1999; Wärneryd, 2008b). This was around the same time as psychology itself was being established as a science, in 1879, with Wilhelm Wundt's pioneering Introspectionist School in Leipzig (Schultz & Schultz, 2004). These developments allowed psychologists and some economists to start questioning the nature of the psychological assumptions used in economic theory, aiming at a more complex theory of rationality, or its rejection altogether (Wärneryd, 2005a).

Tarde, also considered to be one of the pioneers of social psychology, claimed that economic phenomena demanded a minute analysis of the psychology involved in them. In his earlier work, he discussed how imitation, repetition, and innovation could be used to analyse social and economic behaviour (van Raaij, 1999). However, it was in 1902 that he published *La psychologie économique*, believed by several authors to mark the birth of the discipline (Barracho, 2001; Descouvières, 1998; Ferreira, 2007, 2008; Kirchler & Hoelzl, 2003; Lea et al., 1987; Reynaud, 1967; van Raaij, 1999; Wärneryd, 2008b). This two-volume book was never translated into other languages, and Tarde passed away shortly after publishing it, in 1904. After that, the progress of economic psychology in Europe was to stall for several decades.

Around the same time, Thorstein Veblen, an American social thinker, published in 1899 *The Theory of the Leisure Class* in which he criticized the excessive life-style of American millionaires (Kirchler & Hoelzl, 2003; van Raaij, 1999). He argued that the basic human drive was towards social and economic status, and the means to achieve these could vary according to time and social and economic conditions (Lea et al., 1987). Veblen defended a broader approach to analysing economic phenomena, in

which disciplines such as psychology, biology, political science and history should play a major role. For many years, he strove to convince economics to absorb these perspectives, but did not really succeed. Economists argued against this interdisciplinary approach on the grounds that economic theories – including those making assumptions about human nature and the psychological mechanisms of economic agents – would suffice for their studies (Ferreira, 2007, 2008; van Raaij, 1999).

Wärneryd (2005a) and Kirchler and Hoelzl (2003) identified other advances in economic psychology in the United States in the early 1900s, with Wärneryd noting that they tended to be classified as consumer psychology. An *Association of Economic Psychology* was created in 1916, led by psychologists and businessmen interested in using psychology for practical purposes, such as recruitment and selection, publicity and sales, although information about the association is sparse, possibly because of the turmoil during and following the First World War (Wärneryd, 2005a).

To some authors, modern economic psychology starts in the mid-twentieth century, with George Katona (Ferreira, 2007, 2008; Webley & Walker, 1999). Indeed, the pioneering work of Katona, a Hungarian psychologist who emigrated to the United States and worked for the Department of Agriculture and the University of Michigan, is considered to be a landmark in the history of economic psychology. He was responsible for some of the first large surveys of attitudes, beliefs and expectations regarding economic behaviour.

In the early 1940s, economists were predicting from theoretical models that a major recession would follow the end of the Second World War because the population would be motivated to save their money after the traumatic events of the war. However, from his large-scale surveys of the American population, Katona predicted that the opposite was more likely, with people eager to buy goods, spend money and enjoy life after the war – and he was right. An economic boom took place after the war in the United States, and the economic community and other researchers were surprised that a psychologist could get it right, while economists went so astray in their forecasting (Ferreira, 2007, 2008).

In 1952, Katona created the ‘Index of Consumer Sentiment’ (ICS) that assesses people’s economic expectations (see Chapter 13). The ICS was subsequently adopted by many countries and is still very much in use. In 1975, he published his major work, *Psychological Economics*, which integrated the findings from his many regular surveys. The reason he would prefer this for the title of his book to the inverse – *economic psychology* – remains unclear. Apparently, he used both, as well as the term *behavioural economics*, making no obvious distinction between them (Cruz, 2001).

1.2.2 Economic Decision-Making

Working at the same time as Katona, Herbert Simon began to develop an equally influential contribution to economic psychology. Like Katona, Simon’s research was grounded in empirical investigation. His fundamental criticism of the behavioural assumptions of mainstream economic theory, based on *homo economicus*, was that they were just that – assumptions; neither based on, nor tested against, empirical data. In his classic study of how firms actually work, *Administrative Behaviour*, Simon (1947) found that business people did not seek to maximize their profits, as would be expected from standard economic theory. Rather, they set target levels above which

they would be satisfied that their business would be more than viable. That is, they were motivated to reach an aspiration level. He later coined the term ‘satisficing’ to refer to simple decision rules, or heuristics, in which aspiration levels, rather than the goal of maximization, play a major role (Simon, 1955). His work on bounded rationality, an alternative view to ‘rational economic man’, was both a seminal and enduring contribution to psychology’s cognitive revolution (Simon, 1959, 2000) that laid the ground for subsequent psychological theories of decision-making, such as prospect theory (Kahneman & Tversky, 1979). In Chapter 2, Kühberger and Schulte-Mecklenbeck review these developments, based on what they describe as the bedrock concepts of risk and value. They consider how judgement and decision heuristics have been viewed as both adaptive mechanisms for dealing with a complex environment and maladaptive failures of rationality. They conclude that our understanding of the psychology of economic decision-making has advanced by exploring the process of making decisions and by investigating the joint roles of emotional and affective influences and cognitive mechanisms.

Another major development in economic decision theory concerns choices between alternative courses of action whose outcomes are distributed over time, for example, either spending now or saving for a pension; or at the societal level, continuing to burn fossil fuels or developing energy sources less harmful to the planet in the long term. These are known as intertemporal choices. Koopmans (1960) developed a discounted utility model based on the rational principle that, other things being equal, one should have a time preference for a positive event sooner rather than later. As Read and Scholten explain in Chapter 3, much influential theory developing the concept of time preference has been tested in the laboratory with variants of the simplest intertemporal choice, ‘smaller sooner or larger later?’, for example: ‘would you prefer £10 today or £12 in two months?’ As well as time preference, other psychological dimensions of time perspective, such as planning horizons, concern for future consequences, expectations and uncertainty about the future, have been found to predict everyday economic decisions, for example, saving and borrowing (see Chapter 13 and Chapter 14 in this volume). Further research is needed to clarify the relative importance of these different aspects of time perspective in economic decision-making.

1.2.3 *Behavioural Economics and Economic Psychology*

Behavioural economics, more usually known by its American spelling (behavioral), is the branch of economics that uses psychological concepts and theories to better understand economic behaviour. This seems rather similar to aspects of our definition of economic psychology, summarized in Box 1.1, so what are the differences between the two disciplines? As Fetchenhauer et al. (2012) asked in the title of their article, are they ‘monozygotic twins or unrelated stepchildren?’ Before addressing this question, we first present some background on behavioural economics.

According to recent autobiographical accounts (Kahneman, 2011; Thaler, 2015), the discipline was born of a fruitful interaction between psychologists Daniel Kahneman and Amos Tversky, and the economist Richard Thaler in the 1970s. After Thaler had identified some patterns of economic behaviour inconsistent with rational economic theory, he explored how to explain these anomalies with Tversky and

Kahneman. He derived explanations from their influential work on judgemental heuristics and biases (Tversky & Kahneman, 1974) and prospect theory (Kahneman & Tversky, 1979), discussed in Chapter 2.

One of the first interdisciplinary collaborations in behavioural economics was research showing that economic behaviour can violate *homo economicus*'s (expected) utility maximization principle because people's evaluation of the same good can vary, depending on whether they own it or not (Kahneman, Knetsch, & Thaler, 1990; Thaler, 1980; see Chapter 11). They explained this *endowment effect* in terms of prospect theory's value function, which assumes that: (1) economic outcomes are evaluated as gains or losses relative to a reference point, and (2) people are loss-averse. The other key element of their explanation is that owners 'frame' the evaluation of the good from a different reference point to non-owners. In Kahneman's view, 'The concept of loss aversion is certainly the most significant contribution of psychology to behavioral economics' (2011, p. 300). Other framing effects, where the same decision alternatives are viewed from different reference points, likewise leading to preference reversals that violate utility theory (Tversky & Kahneman, 1981), have also made significant contributions. Perhaps the outstanding achievement of behavioural economics since the early 1980s has been its impact on public policy. For example, the recognition that framing the decision to donate organs after death as the default, with opting out being the alternative, increases rates of organ donation compared to the opposite frame (Johnson & Goldstein, 2004). Kahneman notes that the book *Nudge* (Thaler & Sunstein, 2008) can be considered to be the bible of behavioural economics, and that its international impact includes the establishment in the United Kingdom of the *Behavioural Insights Team* to advise the government on measures to support policy objectives, such as increasing the take-up of occupational pensions. Recently, more nuanced views of the impact of behavioural economics have been aired (Harford, 2014).

The similarities between behavioural economics and economic psychology are perhaps more important than their differences. First, both acknowledge many of the same historical roots described earlier, with both, for example, identifying Herbert Simon as a founding parent. This is not surprising since he was a polymath, making outstanding contributions to psychology, economics, artificial intelligence, and the philosophy of science. Indeed, a case can be made that he was the first psychologist to be awarded the Nobel Prize for Economics – in 1978, for his pioneering research into the decision-making process in economic organizations. Second, both disciplines are essentially empirical sciences, placing a premium on the validity of theories tested against behavioural evidence. Finally, both are applied sciences motivated to develop effective support for individuals and society in the economic domain.

Although both disciplines draw on psychology and economics, their main differences concern their ontological and epistemological assumptions and the research ethics of their parent disciplines. First, economic psychology draws broadly on contemporary psychology, which, as argued earlier, includes the primary goal of modelling mental life. On the other hand, the psychological component of behavioural economics is dominated by the approach to the psychology of judgement and decision-making developed by Tversky and Kahneman and their colleagues. In that sense, then, perhaps behavioural economics can be seen as a school within a broader interdisciplinary endeavour, in much the same way that the Chicago School is viewed in economics. Second, Fetschenhauer et al. (2012) note differences in epistemological

approach, with economic psychology being prepared to employ a more eclectic range of research methods (see Section 1.3 and Part 2), including the study of behaviour in realistic, hypothetical scenarios and a range of methods to elicit self-reports (Ranyard & Svenson, 2011). In contrast, behavioural economics deems a narrower range of methods to be scientific, and requires data to be either from the real economic world or to be motivated by meaningful incentives. Third, Fetchenhauer et al. further explain that another significant contrast between the two disciplines relates to research ethics. Specifically, whereas economic psychologists allow the deception of research participants, as long as an appropriate ethical code is adhered to, such as that of the British Psychological Society (BPS, 2014), this is not acceptable, according to behavioural economics research ethics. Finally, it should be noted that behavioural economics adopts a distinctive political position concerning the role of interventions to effect behavioural change, *libertarian paternalism*. Applying this philosophy, those in power use behavioural economic research findings to change the decision environment so that people are more likely to make the decisions that those in power deem to be in the people's best interests. Some in the wider economic psychology community accept this 'nudge' approach to policy, while for others it is more controversial.

In conclusion, nowadays the distinctions between behavioural economics and economic psychology are becoming blurred. For example, behavioural economics is today more influenced by broader psychological theories, while economic psychology has been influenced by developments in behavioural economics. Kahneman recently expressed a similar view of the relationship between the related disciplines as follows: 'We need a common label for our shared activities ... a descriptively correct label is "applied behavioral science" ... I would be proud to call myself an applied behavioral scientist' (Kahneman, 2013, p. ix).

1.3 RESEARCH METHODS

Quantitative research methods have dominated economic psychology, although qualitative methods have made important contributions, often within multi-method research strategies, for example, case studies of specific economic events or phenomena, or in-depth interviews about core economic experience. Antonides presents a comprehensive overview of research methods in Chapter 4. He details an extensive range of studies to illustrate how each method has made a substantive contribution to the field. In quantitative economic psychology research, the measurement of psychological variables, or psychometrics, has been of central importance. Consequently, the two other chapters in Part 2 (Research Methods) are devoted to this. In Chapter 5, McNair and Crozier describe published measures of psychological dispositions and states relevant to economic behaviour. The scales they evaluate can be recommended for use in new research projects since they possess the sound psychometric properties of sensitivity, reliability and validity. In Chapter 6, Wood and Boyce explain how new subjective scales of personality, preferences and well-being can be developed for research purposes and when this might be appropriate. They provide a detailed guide to the process suitable for researchers new to psychometrics and a checklist of good practice for those more familiar with it.

1.4 ECONOMIC MENTAL REPRESENTATIONS

In the fourth century BC, the invention of money changed the nature of human social and commercial exchanges. According to the credit definition, money is a scale of economic value used across society to monitor and record balances of credit and debt that are transferable to third parties (for a nontechnical account, see Martin, 2013). This definition focuses on the role of money as a tool to facilitate the practicalities of trade, and in economic theory it is seen as an interchangeable tool usable in any economic transaction. However, one of the earliest contributions of psychology to behavioural economics was research showing that psychologically money is not completely interchangeable, since the way people use money depends on how they mentally categorize it (Shefrin & Thaler, 1988; Tversky & Kahneman, 1981). In Chapter 8, Antonides and Ranyard review research demonstrating the rich diversity of such mental accounting phenomena. Before that, in Chapter 7, Zaleskiewicz, Gasiorowska, and Vohs consider core aspects of what money means to people. They describe an extensive series of ingenious experiments showing that reminding people about money affects economic behaviour in surprising ways. These money priming studies reveal that the psychological meaning of money runs much deeper than that of a mere tool. They show, for example, that money is associated with feelings of agency and independence, and with both negative values of selfishness and positive values of fairness and reciprocity.

Other aspects of money, the processes of evaluating specific prices, and perceptions and expectations of price inflation, are reviewed in Chapter 10 by Ranyard, Del Missier, Bonini, and Pietrioni. They argue that it is important to understand the former since judging whether a given price is cheap or expensive is a fundamental process underlying consumer behaviour. Also, it is important to understand the latter especially because (1) inflation expectations affect individual and household economic behaviour, and (2) surveys of inflation expectations are used to inform monetary policy.

Other key aspects of economic mental representations are explored in Chapters 9 and 11. In Chapter 9, Leiser and Krill present a novel analysis of lay understanding of the macro-economy. They point out that modern economies are complex with multiple direct, indirect and feedback effects of, for example, the rate of unemployment on economic growth. As Simon (1955) argued, the human capacity to deal with such complexity is bounded. The authors present fascinating evidence of how lay people use metaphors and heuristics to understand the economy. They are doubtful that any resulting misunderstandings can be corrected by financial education, but whether their doubts are justified is an open question for future research. Finally, in Chapter 11, Crozier reviews extensive research revealing the psychological meanings of material possessions, and shows that it demonstrates a strong link between a sense of ownership and self-identity. He also considers materialism, the importance people attach to material possessions, as an individual difference. Research has consistently shown it to be negatively correlated with subjective well-being, defined as both a reflective judgement on satisfaction with one's life and the balance of positive and negative emotions one experiences. His analysis of the causes, consequences and implications of this relationship contains many valuable insights.

1.5 FINANCIAL BEHAVIOUR AND ECONOMIC ACTIVITY

The quality of decisions to spend, save or borrow is central to the financial well-being of individuals and households. In Chapter 12, Vlaev and Elliott describe a psychological framework that defines what it means to be a financially capable citizen who makes informed decisions on such matters. They argue for a deeper notion of capability that includes, in addition to appropriate knowledge and cognitive skills, people's reflective and automatic motivations and the social and physical opportunities that their environment provides for capable action. The authors describe a range of interventions that have successfully supported people's ability and motivation, and consequent financial decision-making, particularly in the domain of saving behaviour. They show how their psychological framework facilitates our understanding of when interventions will have successful outcomes.

Understanding individual and household saving and borrowing is important to economists, since on the aggregate level such behaviour affects the macro-economy; as Lea et al. (1987) wrote, we need to understand how individuals affect the economy as well as vice versa. In Chapter 13, Nyhus explains some of the influential ways that economists have theorized about saving behaviour, such as Keynes' (1936) *absolute income hypothesis* and Modigliani and Brumberg's (1954) *life-cycle hypothesis*. She points out that there is agreement that income is a major driver of saving and that most economic analyses hold that the effects of individual psychological factors cancel out at the aggregate saving level. On the other hand, psychologists such as Katona (1975) have argued that, as has been observed, individual expectations of future income do predict aggregate saving and borrowing. In Chapter 13, Nyhus reviews research on important psychological determinants of saving, including time orientation, attitudes towards, and motives for saving. Not surprisingly, Ranyard, McHugh and McNair show in Chapter 14 that some of the same psychological factors, for example, time orientation, are also associated with borrowing. Other psychological characteristics associated with borrowing include materialistic values and less active money management. Ranyard et al. also review research on the information borrowers need to make good credit and repayment choices, and the causes and consequences of over-indebtedness. They conclude with some suggestions for improving credit information disclosure, the role and content of financial education, and support for over-indebted borrowers.

Ordinary citizens as well as professionals are increasingly engaged in financial markets. For example, recent policy changes in many countries have resulted in many more people managing their own pension investment portfolios. In Chapter 15, Hedesström reviews research on the cognitive, emotional and social influences on investment behaviour. He concludes that the research shows that investors tend to trade too often, which may be associated with overconfidence or thrill-seeking, and they sell rising shares too soon and falling shares too late. Hedesström argues that such short-termism may be counteracted if, as Gärling et al. (2009) suggest, bonuses to portfolio managers are linked to long-term performance.

Taxpaying is another aspect of economic behaviour that has broader implications, since if people evade or avoid their taxes, this has a serious negative impact on the economy and society. Kirchler and Hoelzl's illuminating review in Chapter 16

describes how audits and fines, attitudes towards taxes and non-payment, social norms and notions of fairness influence an individual's tax behaviour. They argue that effective policies to minimize avoidance and evasion require that tax authorities use their powers wisely and foster a climate of trust with taxpayers. They conclude by suggesting several specific measures that could contribute to an approach to regulation based on cooperation and trust.

As well as financial matters, the scope of economic psychology encompasses important aspects of work and leisure, three of which are explored in Part 4 of the book. Since people have both intrinsic and extrinsic motivations to work, the role of money as an incentive for employees and volunteers is not straightforward. For example, research has shown that pay for volunteers crowds out their intrinsic motivation to contribute something positive to society (Frey, 1997). In Chapter 17, Frey and Gallus argue that both volunteer and for-profit organizations face similar problems of incentivizing workers. They focus on the role of public recognition by awards, outlining how they differ from monetary incentives. They conclude with some potentially useful suggestions for how organizations could effectively use awards to support the motivation of their volunteers.

Although voluntary work is important to the economy, entrepreneurial activity has a crucial role since it creates and expands economic activity, especially by identifying and exploiting new products. In Chapter 18, Domurat and Tyszka explore the economic and cultural conditions, and the personal motivations that stimulate entrepreneurial activity. Following a critical evaluation of research on the psychological characteristics associated with entrepreneurial status, they conclude that some statistically significant, though rather weak, associations have been found. They also find that entrepreneurs may be susceptible to cognitive biases in different ways from non-entrepreneurs. Finally, they detail some of the positive outcomes of training programmes for those embarking on entrepreneurial activity.

As well as the world of work, the world of leisure is a fascinating domain for economic psychology. Here we consider gambling behaviour, the one example in which risk, monetary value and affect are central. The study of gambling is interesting because, on the one hand, it is a major branch of the leisure industry and a source of pleasure for millions of people, yet on the other, *problem* gambling is a source of significant psychological and financial distress. In Chapter 19, Xu and Harvey discuss different forms of gambling, from simple jackpot lottery games of pure chance to more complex forms, arguably involving some skill, such as sports betting and card games. The authors document research that has advanced our understanding of the cognitive, affective and neurological determinants of gambling behaviour. They show that at least for those whose problem gambling is not due to some prior underlying psychopathology, cost-effective interventions based on education or counselling techniques can provide effective support.

1.6 LIFE-SPAN PERSPECTIVES

In 2001, Webley, Burgoyne, Lea and Young published the first thorough treatment of economic psychology that took a life-span developmental perspective. In Part 6 we offer four chapters that selectively enrich such an approach. In Chapter 20, Otto and

Serido begin by showing how one such developmental framework, that of Bronfenbrenner (2005), can offer insights on economic behaviour. They then review research on the role of parents in economic socialization which, it can be argued, is at least as important as school-based financial and economic education. Finally, they present an illuminating overview of how the economic understanding and behaviour of children, adolescents and young adults progress towards the goal of adult financial autonomy. A complementary perspective on the childhood psychological predictors of lifelong economic outcomes is presented by Egan, Daly and Delaney in Chapter 21. Their theoretical perspective emphasizes the notion of critical periods of development particularly before the age of 3 years old, while their review of the literature focuses on longitudinal surveys of development from child to adult, and on well-controlled studies of the impact of early interventions. In a thoughtful consideration of policy implications, they recommend that priority be given to early interventions supporting infants and pre-school children, and their parents.

Chapters 22 and 23 turn to developments across the adult years. In the former, Sonnenberg considers the economic psychology of couples' joint financial decision-making and of money management in households. She explains that research on the former shows how joint purchase decisions depend on a couple's relationship quality, their previous decision histories and on each partner's use of social influence strategies. She then shows how intra-household money management systems affect each partner's access to monetary resources, with women tending to be disadvantaged. Sonnenberg further argues that social norms such as fairness, and stereotypic expectations such as entitlements to earned income, are important psychological determinants of household financial behaviour. She concludes that further research could explore such factors more fully with new methods to reveal the dynamics of joint decision processes.

In Chapter 23, Bruine de Bruin examines the role of cognitive functioning, knowledge, emotions and motivation in personal economic decision making. She focuses on how age-related changes across adulthood impact on the quality of decision processes. The research she reviews shows how declines in fluid cognitive abilities, such as information processing speed, result in older adults having greater difficulties as the complexity of decisions increase. In other respects, both positive and negative effects of age-related changes have been observed. On the positive side, for example, older adults seem to dwell less on past negative events, which can be useful. Bruine de Bruin argues that support for economic decision-making across adulthood can be improved if such life-span psychological developments are taken into account. She contributes a valuable analysis of how decision aids, lifelong education and financial advice could benefit from such an approach.

1.7 ECONOMIC PSYCHOLOGY AND SOCIETY

The aspects of economic life and behaviour considered in Part 7 all have rather important implications for society. In Chapter 24, Kogut and Ritov present an in-depth analysis of research on the psychology of charitable giving. As they point out, Adam Smith (1756) believed that helping others is a fundamental human motivation, and

recent research has elaborated this. For example, Andreoni and Payne (2003) found that the act of giving a sum to a charitable cause gave people more pleasure than merely knowing that the same amount of the tax they paid went to that cause. Kogut and Ritov show how various characteristics of charitable causes influence donation behaviour, including the extent to which those in need elicit empathy. In addition, they analyse certain cognitive biases in charitable giving such as the *singularity effect*; the finding that donations are greater when the target of help is an identifiable individual rather than a group. Clearly, a rich understanding of charitable giving can be of great value to organizations for public benefit that rely on donations.

Earlier we mentioned Crozier's reflections on the negative association between material values and subjective well-being. In Chapter 25, Gärling and Gamble explore the measurement, causes and consequences of the latter in greater detail. Subjective well-being, they argue, is an important goal at both the societal and individual levels. Their review identifies a range of determinants of subjective well-being, including engagement in goal-directed activities, material wealth and supporting others. They also discuss important consequences such as good health and a longer life. Gärling and Gamble conclude that further research is needed to better understand the complex interrelationships between such factors and the directions of causality between them.

Poverty, generally defined as gap between the material resources people need to live and those they actually have, clearly has a negative impact on subjective well-being. In Chapter 26, Loibl reviews recent research on the negative effects of poverty on the financial behaviour of vulnerable groups. A series of recent studies have shown how preoccupation with the problems of everyday life in poverty can impair economic decision processes (Mullainathan & Shafir, 2013). Loibl begins by considering the various ways that poverty is defined and then reviews the effects on the economic behaviour of people living in poverty of the financial environment, financial literacy, limited margins for decision error and pressure on mental resources. She presents a thoughtful discussion of three particularly vulnerable groups that, she argues, are doubly disadvantaged: older adults, children and single mothers.

Chapter 27, by Handgraaf, Griffioen, Bolderdijk and Thøgersen, takes an economic psychological perspective on pro-environmental behaviour. Among other things, the authors show how psychological dispositions such as pro-environmental attitudes and concern for future consequences are associated with pro-environmental behaviour, and that certain cognitive biases, such as a preference for the status quo, and misunderstandings of effectiveness, can be barriers to pro-environmental actions. They conceptualize environmental problems as large-scale social dilemmas in which social norms may be used to overcome some of the problems of financial incentives for behaviour change in the interest of saving the planet – the ultimate societal challenge of our times.

In the final chapter, Ranyard, Ashton and Hebenton consider individual and societal issues surrounding personal and household insurance. Their overarching concerns relate to different facets of the moral hazards inherent in insurance: the insured may take unwarranted risks or make fraudulent claims, while insurers can mis-sell their products or turn a blind eye to false claims. In the first part of the chapter the authors present a bounded rationality perspective of insurance decisions as a means of protection against financial loss. In the second part, they discuss the causes of mis-selling and related consumer protection matters and in the final part they explore the prevalence of insurance fraud and approaches to prevention.

1.8 SUMMARY

Economic psychology, the science of economic mental life and behaviour, is increasingly relevant as people are expected to take more responsibility for their household and personal economic decisions. This chapter serves as a brief introduction to the field as well as to the following chapters of the book, which are organized into seven parts. We first traced the emergence of the discipline, from Adam Smith to George Katona and Herbert Simon, and discussed its relationship with behavioural economics. We also introduced important theories of economic decision-making based on risk, value and affect, and theories of intertemporal choice (Part 1). Then, after a brief look at methodology (Part 2), we examined the nature and behavioural consequences of economic mental representations about such things as material possessions, money and the economy (Part 3). We next turned to central aspects of economic psychology in everyday life – financial behaviour such as saving and tax-paying, and matters, such as entrepreneurial activity (Parts 4 and 5). In these and other chapters we noted some of the important implications of the research for supporting individuals and the economy. Finally, we considered two broader perspectives on economic psychology: life-span psychological development from childhood to old age (Part 6); and societal issues such as charitable giving and pro-environmental behaviour (Part 7). We hope that our selective review of the fascinating field of economic psychology is sufficient to whet the appetite of our readers.

NOTE

1. Readers should note that neuropsychological perspectives on economic behaviour are outside the scope of our coverage.

REVIEW QUESTIONS

1. What role has the notion '*homo economicus*' had in the development of economic psychology?
2. Why are mental representations important in understanding economic behaviour?
3. Consider how a person's time perspective might be both a cause and a consequence of personal financial decisions.
4. Discuss the insights into economic behaviour arising from a life-span developmental perspective.

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