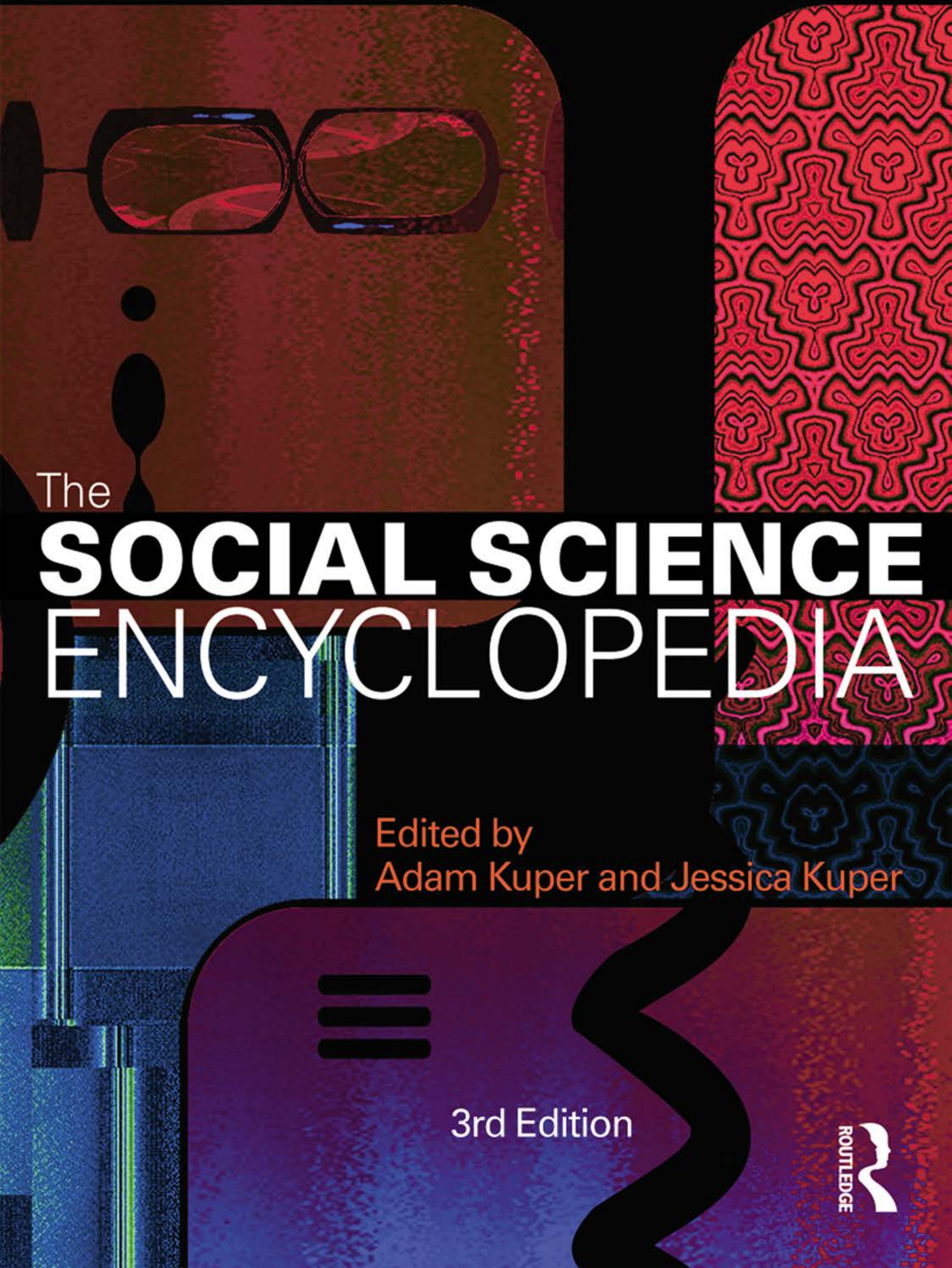

The SOCIAL SCIENCE ENCYCLOPEDIA

Edited by
Adam Kuper and Jessica Kuper

3rd Edition

ROUTLEDGE

The Social Science Encyclopedia

The Social Science Encyclopedia, first published in 1985 to acclaim from social scientists, librarians and students, was thoroughly revised in 1996, when reviewers began to describe it as a classic. This third edition has been radically recast. Over half the entries are new or have been entirely rewritten, and most of the balance have been substantially revised.

Written by an international team of contributors, the *Encyclopedia* offers a global perspective on the key issues with the social sciences. Some 500 entries cover a variety of enduring and newly vital areas of study and research methods. Experts review theoretical debates from neo-evolutionism and rational choice theory to poststructuralism, and address the great questions that cut across the social sciences. What is the influence of genes on behaviour? What is the nature of consciousness and cognition? What are the causes of poverty and wealth? What are the roots of conflict, wars, revolutions and genocidal violence?

This authoritative reference work is aimed at anyone with a serious interest in contemporary academic thinking about the individual in society.

Adam Kuper is an anthropologist, author of many books, regular broadcaster and contributor to the *TLS* and the *London Review of Books*. He is a Fellow of the British Academy.

Jessica Kuper retired in 2002 as senior commissioning editor in the social sciences at Cambridge University Press.

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The Social Science Encyclopedia

Third edition

Edited by Adam Kuper
and Jessica Kuper

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Editorial preface

This is the third edition of *The Social Science Encyclopedia*. The first edition was published in 1985. The second edition, substantially revised and updated, appeared in 1996. As editors we have benefited from the opinions of reviewers and readers, from the expert advice of three successive international panels of advisory editors, and from the suggestions of many of our contributors, and in the two decades since its launch the *Encyclopedia* has established a reputation for providing authoritative, accessible and up-to-date coverage of the social sciences, in a convenient format. We would like to think that this third edition is an advance on its predecessors, but our aim remains unchanged. We have done our best to orchestrate a reliable, intelligent and interesting review of the whole gamut of ideas and findings on the individual and society that have emerged from more than a century of academic research and debate.

Each edition has drawn on hundreds of experts from many countries, representing a variety of intellectual traditions, academic specialities and points of view. Together they have contributed between 400 and 500 entries. These range from extended reviews of an entire discipline or a major research topic through a large number of concise presentations of central concepts, subfields and key biographies to relatively brief essays on specialist issues. For this edition we have generally opted to commission longer entries, covering more ground, but there are still around 500 items. Half the entries were completely recast for the second edition, or were commissioned specially for it, and the rest were revised. Over half the entries commissioned for this edition are, once again, entirely or substantially new, often on topics not covered before. Most of the remainder have been revised and brought up to date.

The second edition covered fresh debates and fields of enquiry that had emerged in the previous decade. This third edition again introduces new theoretical and topical material to reflect the state of affairs in the social sciences in the early twenty-first century. The current edition pays more attention to evolutionary thinking in the social sciences, which has influenced all fields in the past decade. Other trends are also apparent, across disciplines and influencing a variety of research programmes. Rational choice approaches and game theory have migrated from economics into political science and sociology. At the same time, economists are drawing on psychological theories to explain failures of rationality, and to gain insights into how people act when they have to make choices but lack vital pieces of information. The human rights discourse has become central to political theory, law and international relations (which is covered more fully in this edition than previously). New developments in the study of cognition and the brain now dominate many fields of psychology, and influence linguistics and anthropology. Advances in genetics have inspired fresh approaches to classic issues in psychology, provided social scientists with new models of communication and change, and provoked critical accounts of how and why genetic models have been popularized and applied to social questions. Culture theory has become an established point of reference for many social sciences, as has poststructuralism, which draws on literary theory. Both now provoke similar debates in several disciplines. The preoccupations of gender studies have been assimilated into many debates and fields of study. In the process, gender studies itself has become broader and more eclectic.

Introducing the first edition we noted that the various social science disciplines increasingly constituted a single arena of discourse. It is perhaps more accurate to say that research programmes overlap more and more. Similar debates crop up in a variety of sites, new ideas passing from one discipline to another. Today economists win Nobel Prizes for doing psychological experiments, political scientists borrow the models of economists, historians debate concepts drawn from anthropology, and sociologists, historians and geographers, as ever, range eclectically across the social sciences. Most of the philosophical and methodological entries in this *Encyclopedia* are relevant to all the social science disciplines. One consequence of this overlap and interpenetration of established disciplines is that we have found it more difficult than ever to decide who should cover certain topics. Yet perhaps precisely because there is so much interdisciplinary activity this does not matter very much, so long as competing perspectives (which often recur in a number of disciplines) are fairly presented. Anyone browsing through these pages with an open mind will soon find that certain themes recur, cropping up in the most unexpected places, and that an initial enquiry can lead from an obvious starting-point right across disciplinary boundaries to perhaps hitherto unheard of destinations, in the process presenting the reader with a number of complementary or competitive ideas.

Intellectual affiliations and ideological concerns also cross-cut disciplinary boundaries. Like its predecessors, this third edition of the *Encyclopedia* reflects the controversies as well as the common assumptions that constitute the social sciences. We have selected our contributors for their individual expertise, but inevitably they represent a very broad cross-section of opinion, and a variety of intellectual orientations. We believe this is one of the strengths of the *Encyclopedia*. The balance comes from reading further, following up cross-references, so that one perspective can be weighed against another.

Does this imply that the social sciences are not true sciences? Bits and pieces – even quite substantial chunks – of some of these disciplines certainly qualify as scientific on any of the conventional tests, just as well as many branches of biology. But since the late nineteenth century, influential voices have queried whether studies of human interactions can and should be modelled on the natural sciences. Many of the philosophical entries included here address this issue. So do the authors of a number of substantive entries, on topics ranging from political science to the sociology of science, a field that has helped to put in question the very nature of science itself. On this, and we hope on other issues too, whatever your particular interests and inclinations, the third edition of *The Social Science Encyclopedia* will help you to make up your mind.

Adam Kuper and Jessica Kuper
London, December 2003

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Vivienne Orchard, University of Southampton
Derrida, Jacques (1930–)

Carlos P. Otero, University of California, Los Angeles
Chomsky, Noam (1928–)

J.P. Parry, London School of Economics and Political Science
Caste; Taboo

Dorothy Pawluch, McMaster University, Canada
Social Problems

Stanley G. Payne, University of Wisconsin, Madison
Fascism

Terry Peach, University of Manchester
Ricardian Economics; Ricardo, David (1772–1823)

James L. Peacock, University of North Carolina
Cultural Anthropology

David W. Pearce, University College London
Cost–Benefit Analysis; Environmental Economics; Welfare Economics

B. Guy Peters, University of Pittsburgh
Bureaucracy

Mark Philp, University of Oxford
Authority; Power

Harold Alan Pincus, University of Pittsburgh and RAND Corporation
DSM-IV

David Pion-Berlin, University of California, Riverside
Military Regimes

Henry Plotkin, University College London
Evolutionary Psychology

Ken Plummer, University of Essex
Homosexualities; Labelling Theory; Queer Theory

Christopher Pollitt, Erasmus University, Rotterdam
Public Administration

Michael Poole, Cardiff University
Business Studies

Jonathan Potter, Loughborough University
Discourse Analysis

Jean Pouillon, Paris
Lévi-Strauss, Claude (1908–)

Cliff Pratten, Trinity Hall, Cambridge
Economies of Scale

Michael Prestwich, University of Durham
Feudalism

John Purcell, University of Bath
Human Resource Management

Martha Ratliff, Wayne State University
Historical Linguistics

Alastair J. Read, University of Cambridge
Marxist History

Isaac Reed, Yale University
Positivism

R. Reiner, London School of Economics and Political Science
Police and Policing

Stanley A. Renshon, The City University of New York
Political Psychology

Jack Revell, University of Wales
Banking

John T.E. Richardson, The Open University
Cognitive Psychology; Cognitive Science

James C. Riley, Indiana University
Morbidity

Bruce Robbins, Columbia University
Intellectuals

Roland Robertson, University of Aberdeen
Sects and Cults

Mark Robinson, University of Sussex
Governance

Paul Rock, London School of Economics and Political Science
Deviance; Symbolic Interactionism

Paul Rogers, University of Bradford
Peace Studies

Paul M. Roman, University of Georgia
Alcoholism and Alcohol Abuse

Michael Roper, University of Essex
Oral History

Nikolas Rose, London School of Economics and Political Science
Genomics

Frederick Rosen, University College London
Bentham, Jeremy (1748–1832)

Robert Ross, University of Leiden
Slavery

Alvin E. Roth, Harvard University and Harvard Business School
Experimental Economics

David F. Ruccio, University of Notre Dame
Marxian Economics

Roy J. Ruffin, University of Houston, Texas
Balance of Payments

John Rundell, University of Melbourne
Modernization

William McKinley Runyan, University of California, Berkeley
Life History

Peter H. Russell, University of Toronto
Constitutions and Constitutionalism

Matthias Ruth, University of Maryland
Conservation

Maurice Salles, Université de Caen
Social Choice

Todd Sandler, University of Southern California
Defence Economics

Gigi Santow, Sydney
Life Tables and Survival Analysis; Vital Statistics

Austin Sarat, Amherst College
Law

Lucio Sarno, University of Warwick, Centre for Economic Policy Research (CEPR), International Monetary Fund
Exchange Rate

Donald Sassoon, Queen Mary College, University of London
Social Democracy

Michael Saward, The Open University
Democracy

Lawrence A. Scaff, Wayne State University, Detroit
Legitimacy

Philippe Schmitter, European University Institute, Florence
Democratization

Hans Peter Schmitz, Syracuse University
International Relations

Sergio L. Schmukler, World Bank
Financial Contagion

Friedrich Schneider, Johannes Kepler University of Linz, Austria
Informal/Shadow Economy

Peter P. Schweitzer, University of Alaska Fairbanks
Kinship

Jacqueline Scott, University of Cambridge
Family

John Scott, University of Essex
Networks, Social

John Sharp, University of Pretoria, South Africa
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Wes Sharrock, University of Manchester
Actor, Social; Structure and Agency

William H. Shaw, San José State University, California
Marx's Theory of History and Society

Ronald Shone, University of Stirling
Economic Dynamics

Oz Shy, University of Haifa
Industrial Organization

S. Siebert, University of Birmingham
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Paul Sillitoe, University of Durham
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Jerome L. Singer, Yale University
Fantasy

Andrew Skinner, Glasgow University
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Carol Smart, University of Leeds
Divorce

Peter Smith, University of Sussex
Cross-cultural Psychology

Peter K. Smith, Goldsmiths' College, University of London
Child Development

Charles D. Spielberger, University of South Florida, Tampa
Anger, Hostility and Aggression; Anxiety

Elizabeth A. Stanko, Royal Holloway College, University of London
Violence

Douglas G. Steigerwald, University of California, Santa Barbara
Consumption Function

Charles Stewart, University College London
Syncretism

Alan A. Stone, Harvard University
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John Stone, Boston University
Ethnicity

M. Stone, University College London
Statistical Reasoning

J.J. Suh, Cornell University
International Institutions

Patrick Sullivan, University of Illinois, Urbana-Champaign
Adolescence

G.M.P. Swann, University of Nottingham
Research and Development (R&D)

George Symeonidis, University of Essex
Competition Policy; Markets

Conrad Taeuber, Georgetown University
Census of Population

Sidney Tarrow, Cornell University
Social Movements

J. Edward Taylor, University of California, Davis
Agricultural Economics

Mark Taylor, University of Liverpool
Macroeconomic Theory

Alice G.B. ter Meulen, University of Groningen, The Netherlands
Semantics

Pat Thane, University of Sussex
Social History

H.S. Thayer, City University of New York
James, William (1842–1910)

Jonathan Thomas, University of Warwick
Pareto Efficiency

John B. Thompson, University of Cambridge
Hermeneutics; Public Sphere

Rodney Tiffen, University of Sydney
Media and Politics

E. Ahmet Tonak, Simon's Rock College of Bard
National Accounts

Christina Toren, Brunel University
Childhood

Jean Tournon, University of Grenoble
Citizenship; Representation, Political

Peter Townsend, London School of Economics and Political Science
Basic Needs; Deprivation and Relative Deprivation; Poverty

John Toye, University of Oxford
Economic Development

Bruce G. Trigger, McGill University
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Stephen Trotter, University of Hull
Privatization; Regulation

Michael Twaddle, Institute of Commonwealth Studies, University of London
Imperialism

John Urry, University of Lancaster
Reference Groups

Elizabeth R. Valentine, Royal Holloway College, University of London
Mind

Peter Vallentyne, University of Missouri
Libertarianism

Frédéric Vandenberghe, University for Humanist Studies, The Netherlands
Sociology: New Theoretical Developments

Joan Vincent, Barnard College, Columbia University
Political Anthropology

Penny S. Visser, University of Chicago
Attitudes

Eftihia Voutira, University of Makedonia, Thessaloniki, Greece
Refugees

Nicholas J. Wade, University of Dundee
Sensation and Perception

Nigel Walker, University of Cambridge
Penology

Richard Wall, ESRC Cambridge Group for the History of Population and Social Structure
Household

P.A. Watt, University of Birmingham
Supply-side Economics

Martin Weale, National Institute of Economic and Social Research, London
Productivity

Gretchen R. Webber, University of Texas, Austin
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Eric D. Weitz, University of Minnesota
Genocide

John K. Whitaker, University of Virginia
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Douglas R. White, University of California, Irvine
Division of Labour by Sex

Geoffrey M. White, University of Hawai'i, Honolulu
Psychological Anthropology

Geoffrey Whittington, International Accounting Standards Board, London
Accounting

Christine L.R. Williams, University of Texas, Austin
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Fiona Williams, University of Leeds
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Deirdre Wilson, University College London
Pragmatics

Michael Winkelman, Arizona State University
Shamanism

Ronald Wintrobe, University of Western Ontario
Political Economy

R. Wodak, University of Vienna
Sociolinguistics

Robert Wokler, Yale University
Rousseau, Jean-Jacques (1712–78); Social Contract

Steve Woolgar, Oxford University
Reflexivity; Science, Sociology of

Michael J. Wright, Brunel University
Consciousness; Vision

Guillaume Wunsch, University of Louvain, Belgium
Age–Sex Structure; Cohort Analysis

Kaoru Yamamoto, University of Colorado, Denver
Educational Psychology

John W. Yolton, Rutgers University
Locke, John (1632–1704)

Jock Young, Middlesex University
Social Exclusion

Michael W. Young, Australian National University
Malinowski, Bronislaw Kasper (1884–1942)

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A

ACCOUNTABILITY

Accountability describes a relationship between power-holders and those affected by their actions, and consists of two key elements: 'answerability' (making power-holders explain their actions) and 'enforceability' (punishing poor or criminal performance) (Schedler 1999). Accountability is often conceived as operating along two dimensions, the vertical and the horizontal. The 'vertical' relationship between citizens and the state can be either formal (through electoral systems) or informal (through lobbying and public advocacy by associations). The 'horizontal' relationship involves one public authority scrutinizing the activities of another – for instance, legislative oversight of executive agencies, or the capacity of specialized authorities (ombudsmen, anti-corruption agencies) to investigate charges of malfeasance (O'Donnell 1999).

Qualifying adjectives are often placed in front of the term accountability to specify the *domain of activity* within which scrutiny is to take place, the *type of actors* being held to account, or a *common standard* against which performance is to be assessed. Thus 'fiscal accountability' refers to a domain of activity: the use of public resources and the formal systems of financial reporting and auditing through which spending authorities are monitored. 'Administrative accountability' refers to a specific variety of actor: bureaucrats, who are obliged to answer to elected officials and to adhere to the rules that define their reporting relationships with superiors and subordinates. 'Legal (or 'constitutional') accountability' refers to an external *standard*: it is enforced by the judiciary, which ensures that state agents neither exceed their legal authority nor derogate from their obligations towards citizens.

The creation of democratic institutions requires the establishment of rules governing relations of accountability. Which individuals, groups, or institutions are entitled to demand answers, and from whom? Which mechanisms are to be used in effecting this right? To what standards shall power-holders be held? Which agencies shall be charged with enforcing sanctions? Because societies change over time – as new actors emerge, new techniques for exercising power are deployed, and new standards for assessing performance become accepted – democratic systems must also specify the means by which the rules governing accountability relationships are to be continuously reinvented. This is perhaps the most difficult challenge facing those seeking to design systems of democratic accountability.

Indeed, the need to adapt to change has been a central feature of the recent history of accountability. Democracy's 'third wave' during the final quarter of the twentieth century (Huntington 1991) led many newly enfranchised groups to hope for a more active role in holding politicians and bureaucrats accountable – in two senses. First, in obliging public authorities to engage in frequent, non-arbitrary, transparent and interactive processes of reason-giving, in which their actions are explained and justified against commonly agreed standards of morality and effectiveness. And, second, in exercising the right to have sanctions imposed on public authorities found to have behaved immorally or performed ineffectively. These aspirations, however, have largely been unfulfilled. Developing World democracies, and indeed the more established democracies in industrialized countries, have experienced what might be called a crisis of accountability – a perception created by pervasive corruption, poor decision-making, and a feeling that public actors are unresponsive to ordinary citizens. Elections, the primary means for holding politicians accountable, are widely considered inadequate, whether because of procedural defects in voting systems or an absence of programmatic alternatives between political parties. Moreover, structural transformations in the nature of governance – which include, but are not limited to, the privatization of some state functions – have blurred lines of accountability, making it difficult to establish which actors hold ultimate responsibility for certain types of policies or services. The ongoing process of globalization has introduced a range of new power-holders, such as multinational corporations and transnational social movements, which slip through the jurisdictional cracks separating national authorities, yet whose actions have a profound impact on people's lives. The influence exercised over economic policy in poor countries by such multilateral institutions as the World Bank, the International Monetary Fund and the World Trade Organization has also reduced the regulatory autonomy of many governments. This has made lines of accountability even harder to trace.

The challenges posed by imperfect democratization and unbalanced globalization have produced a contemporary interest around the world in strengthening accountability institutions, such as electoral systems, courts, human rights commissions and auditing agencies. This is the core of the 'good governance' agenda promoted by many aid agencies. But these efforts are increasingly viewed as insufficient for the scale of accountability-related deprivations faced by the world's poor. In response, the 1990s witnessed a proliferation of accountability-seeking. Despite the undeniable diversity among governance experiments that have sought to improve accountability, and the widely differing contexts in which they have been undertaken, it is possible to discern the defining characteristics of a new accountability agenda in the making (Goetz and Jenkins 2004). Existing mainly in fragments of conceptual innovation and practical experiment, the four basic elements of this agenda are nevertheless increasingly visible: (1) a more direct role for ordinary people and their associations in demanding accountability across (2) a more diverse set of jurisdictions, using (3) an expanded repertoire of methods, and on the basis of (4) a more exacting standard of social justice.

Examples of citizens engaging more directly in accountability efforts are citizen-managed public audits of local government spending (Jenkins and Goetz 1999), participatory budgeting and spending reviews (Abers 1998), or Public Interest Litigation to prosecute, often on behalf of socially excluded groups, public and private actors for abuses of power (Dembowski 2001). Jurisdictional shifts have spurred the development of new techniques. At a global level, the International Criminal Court provides a new (though as yet not universal) arena in which abusers of power can be made to answer to their far-flung victims. At a local level, democratic decentralization makes viable new, more direct, methods for ensuring accountability. Cyberspace even offers a deterritorialized terrain for the advancement of complaints against power-holders, and a means for the pursuit of concerted mass action to demand answers and even impose sanctions such as consumer boycotts.

But it is the question of what power-holders are being held accountable *for* that is the dimension along which accountability is being most dramatically reinvented. New popular understandings of accountability are emerging that go beyond the conventional use of the term. Accountability systems are increasingly expected not just to satisfy concerns with process integrity, but also to respond to norms of social justice.

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SEE ALSO: democracy; democratization; governance; public administration

ACCOUNTING

Accounting deals with the provision of information about the economic activities of various accounting entities, the largest of which is the whole economy, for which national accounts are prepared. However, the traditional province of the accountant is the smaller unit, typically a business firm. Here, a distinction is often made between financial accounting and management accounting.

Financial accounting deals with the provision of information to providers of finance (shareholders and creditors) and other interested parties who do not participate in the management of the firm (such as trade unions and consumer groups). This usually takes the form of a balance sheet (a statement of assets and claims thereon at a point in time), and a profit and loss account (a statement of revenue, expenses and profit over a period of time), supplemented by various other statements and notes. The form of financial accounting by companies is, in most countries, laid down by statute, and the contents are usually checked and certified independently by auditors. In many countries, there are also accounting standards laid down by the accounting profession or by the independent bodies that it supports, such as the United States Financial Accounting Standards Board, which determine the form and content of financial accounts. The standards of the International Accounting Standards Board (IASB) have been adopted in an increasing number of countries in recent years, particularly for the accounts of companies whose securities are listed on public stock exchanges. This process was encouraged by the support of International Organization of Securities Commissions (the international group of securities market regulators) given in 2000 and by the decision of the European Commission to require the adoption of IASB standards from 2005 onwards for the accounts of companies listed on stock exchanges within the European Union.

The auditing and regulation of financial accounts is a natural response to the potential moral hazard problem arising from the information asymmetry that exists between managers and providers of finance. In the absence of such quality assurance, users of accounts would have little confidence in the honesty and accuracy of statements that could be distorted by management to represent its performance in the most favourable light. The issue of investor confidence in financial accounts was brought dramatically to public attention by the collapse of Enron, one of the largest and apparently most successful of corporations in the USA, in 2001. The collapse was precipitated by a dramatic downward restatement of past profits due to the inclusion of losses that had previously been treated as 'off-balance sheet', i.e. they occurred in financial vehicles that had been (incorrectly) regarded as being outside the scope of Enron's group accounts. A number of other 'accounting scandals' were revealed in the USA and elsewhere, following the Enron case. Although it is widely believed that the Enron case involved failure to follow accounting standards, rather than failure of the standards themselves, it led to a widespread call for simpler, more transparent, principles-based rather than rules-based standards. It also drew attention to the importance of strict enforcement of accounting standards, particularly by auditors. These concerns are justified by the fact that the 'scandals' are merely the extreme of a well-established practice of 'creative accounting', i.e. using any latitude provided by accounting standards to portray the performance of the reporting entity in the most favourable possible light. Some of the devices used by creative accountants are illustrated in the books by Griffiths (1995) and Smith (1996).

Management accounting is concerned with the provision of information to management, to assist with planning, decision-making and control within the business. Because planning and decision-making are inevitably directed to the future, management accounting often involves making future projections, usually called budgets. Important applications of this are capital budgeting, which deals with the appraisal of investments, and cash budgeting, which deals with the projection of future cash inflows and outflows, and the consequent financial requirements of the entity.

Management accounting is also concerned with controlling and appraising the outcome of past plans, for example by analysing costs, and with assessing the economic performance of particular divisions or activities of the entity. Because the demand for management accounting information varies according to the activities, size and management structure of the entity, and because the supply of such information is not subject to statutory regulation or audit, there is a much greater variety both of techniques and of practice in management accounting than in financial accounting. Management has, of course, direct control over the information system of the business, so that formal regulation of the management accounting system is less important. However, within large organizations, there are information asymmetries and potential moral hazard problems between different groups (e.g. between branch managers and head office), and such organizations typically have internal auditing systems to reduce such problems.

Both management accounts and financial accounts derive from an *accounting system* that records the basic data relating to the transactions of the entity. The degree to which management accounting and financial accounting information can both derive from a common set of records depends on the circumstances of the individual accounting entity and, in particular, on the form of its management accounting. However, all accounting systems have a common root in double-entry bookkeeping, a self-balancing system, based on the principle that all assets of the entity ('debits') can be attributed to an owner (a claim on the entity by a creditor or the owners' 'equity' interest in the residual assets of the entity, both of which are 'credits'). This system owes its origin to Italian merchants of the fifteenth century, but it is still fundamental to accounting systems, although records are now often kept on computers, so that debits and credits take the form of different axes of a matrix, rather than different sides of the page in a handwritten ledger. The design of accounting systems to avoid fraud and error is an important aspect of the work of the accountant.

The traditional orientation of accounting was to record transactions at their historical cost, that is, in terms of the monetary units in which transactions took place. Thus, an asset would be recorded at the amount originally paid for it. Inflation and changing prices in recent years have called into question the relevance of historical cost, and inflation accounting has become an important subject. It has been proposed at various times and in different countries that accounts should show current values, that is, the specific current prices of individual assets, or that they should be adjusted by a general price level index to reflect the impact of inflation on the value of the monetary unit, or that a combination of both types of adjustment should be employed. Intervention by standard-setting bodies on this subject has been specifically directed at financial accounting, but it has been hoped that the change of method would also affect management accounting.

Financial accounting has also been affected, in recent years, by an increased public demand for information about business activities often supported by governments. Associated with this has been demand for information outside the scope of traditional profit-oriented accounts, resulting in research and experimentation in such areas as human asset accounting, environmental (or 'green') accounting and corporate social reporting. There has also been more interest in accounting for public-sector activities and not-for-profit organizations. Recent developments in management accounting, facilitated by the increased use of computers, include the greater employment of the mathematical and statistical methods of operational research and greater power to simulate the outcomes of alternative decisions. This development has, however, been matched by a growing interest in behavioural aspects of accounting, for example studies of the human response to budgets and other targets set by management accountants. The whole area of accounting is currently one of rapid change, both in research and in practice.

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SEE ALSO: cost–benefit analysis; financial regulation; investment; national accounts; profit

ACTIVATION AND AROUSAL

The terms activation and arousal have often been used interchangeably in the psychological literature to describe a continuum ranging from deep sleep at one end to extreme terror or excitement at the other end. This continuum has sometimes been thought of as referring to observed behaviour, but many authorities have argued that arousal should be construed in physiological terms or in terms of an internal psychological state. So far as the physiological approach is concerned, the emphasis has often been placed on the ascending reticular activating system. This system (which plays an important role in regulating states of awareness) is located in the brain-stem and has an alerting effect on the brain.

In recent years, there has been increased questioning of the usefulness of the theoretical constructs of activation and arousal. There are various reasons for this increasing scepticism, some of which are identified here. First, there are serious measurement issues. For example, there are several potential measures of arousal (e.g. heart rate; galvanic skin response), but these measures typically intercorrelate only weakly (Lacey 1967). Second, the relationship between psychophysiological and self-report measures of arousal is generally no more than moderate, indicating that there is no equivalence between the two ways of assessing arousal. Third, it has proven difficult to distinguish clearly between the constructs of activation and arousal. H.J. Eysenck (1967) proposed that the term 'arousal' should be used exclusively with reference to cortical arousal dependent on the reticular activating system, whereas 'activation' should be used to refer to emotional or autonomic arousal. However, this proposed distinction has received only inconsistent support from relevant research, and it appears that the overlap between arousal and activation as so defined is much greater than was predicted theoretically. Fourth, and perhaps of greatest importance, it has been found that physiological processes (including those of the autonomic nervous system) are considerably more complicated than was previously thought to be the case. As a result, reliance on terms such as 'activation' and 'arousal' serves to provide a drastic oversimplification of a complex reality.

In view of the complexities and uncertainties of physiologically based approaches to arousal and activation, it may be preferable to focus on more psychologically based approaches. Some of the clearest evidence in support of such an approach has occurred in theory and research on emotion. For example, Russell (e.g. Russell and Carroll 1999) has argued that the structure of self-reported affect is two-dimensional. One dimension contrasts unpleasant with pleasant feelings, whereas the second dimension is an arousal dimension ranging from low to high. Intense positive emotion reflects high levels of pleasant feelings and high arousal, and intense negative emotion reflects high levels of unpleasant feelings and high arousal. As Russell and Carroll pointed out, most of the available evidence supports the notion that most affects can be described within a structure consisting of two orthogonal dimensions, although there has been controversy concerning the optimal placement of the dimensions within a two-dimensional space.

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SEE ALSO: anger, hostility and aggression; emotion

ACTOR, SOCIAL

In a way, the issues that are centred on the nature of the social actors run along the main fault lines which fracture sociological thought into the diverse approaches, methods and theories that make it up. However, the nature of the social actor is not itself much discussed and seldom systematically worked upon. Most approaches to sociology manage without any explicit or worked out conception of the social actor. This is perhaps partly because of the anti-individualism of much sociological thought, and the associated supposition that actors can simply be assumed to act in accord with the culture or ideology that is instilled into them, in accord with their interest, or in compliance with the power that regulates them. As a result, 'the social actor' (i.e. the sociologist's conception of a member of society) is apt to be an underdeveloped and *ad hoc* construction.

The most extensive and explicit discussion of the social actor has been predominantly driven by essentially epistemological concerns. The question of the relative validity of the actor's and the (sociological) analyst's point of view on social reality has been a persistent and focal point of consideration. To many, it seems quite pivotal to the existence of sociology. If the members of society 'know how society works', then what need is there for sociology? Other questions follow. Is social reality as it appears to be for the members of society or does their perception and experience give them only a limited, partial or distorted apprehension of the true nature of social reality? Is social reality that which is revealed in (the correct) sociological theory? Is the second point of view to be (epistemologically) privileged over the first?

This question turns up in many different contexts and guises, and no more can be done here than to highlight one or two of the key ways in which it has manifested itself.

One of the guises in which the question appears, and which has provided an influential preoccupation for many years, concerns the 'rationality' of social actors. An orthodox conception of 'rationality' defines it as conduct that is in conformity with current scientific understandings (cf. Parsons 1937: 698–9).This raises issues that have to do with the effectiveness of action. If the world really works in the way that science says it does, then only action which is premised upon scientific understandings *is* rational, and therefore effective. Conversely, action that is not premised upon scientific understanding will not be capable of effectively manipulating its real (or, as they are often called, 'objective') circumstances. The 'rationality' issue neatly ties up with arguments about whether social reality is something that exists independently of our thought about it, a question that is given a vigorously affirmative answer by 'realists' of different kinds (cf. Bhaskar 1979).

A related issue is whether social scientists should construct rational models of the actor's actions. Among the pioneering sociologists, Max Weber attempted to do so, but with the aim of comparing rational strategies with actual courses of action. Weber did not suppose that social actors are necessarily rational. Whether or not a course of action was rational was a matter to be determined empirically. In economics and game theory, on the other hand, constructions of the rational actor are very generally used, the goal being to facilitate the application of explicit formal reasoning and mathematical modelling. Recently, two prominent figures (James S. Coleman (1990) in the USA and John Goldthorpe in the UK (2000)) have independently proposed the adoption of 'rational action theory' for sociology. Such appeals characteristically find little response amongst sociologists (cf. Edling 2000). It is usually argued that they are unrealistic. Individuals are not the relentlessly calculating self-interested creatures proposed in these constructions. (For much the same reason, sociologists generally are suspicious of economics.) Nevertheless, the construction of such models can be defended on the grounds that they provide an effective simplification that makes the business of theory building manageable, and that their effectiveness does not depend on a belief that they are necessarily realistic. (It may even be argued that the making of unrealistic assumptions is a *bona fide* feature of theoretical endeavour in science.) The division over rational models reflects the (unresolved) tension within sociology between the desire for general theory and for realistic presentation, but the lack of enthusiasm for rational models may also emanate from a more pragmatic concern about whether it is practical for sociology to emulate economics, game theory and the like.

It may appear obviously true to realists that social reality exists independently of our thought about it. However, other sociologists argue that social reality consists in – is constituted by – the understandings of members of society. Society exists 'in the minds' of its members and, as such, must patently be known to them. Anyone who takes the latter point of view – or, at least, is imagined to do so, as, for example, 'phenomenological' sociologists are widely supposed to do – is liable to be accused of idealism by the realists.

One way in which the realist assumption has been contested is through a denial that there is any universal standard of knowledge, or more specifically that (Western) science can be taken as the yardstick of truth. There has been a long and characteristically unsatisfactory debate over whether rationality is to be understood 'locally' instead of as a universal. One main strand of disagreement on this was provoked by Peter Winch's 'Understanding a primitive society' of 1964. By way of a discussion as to whether the magical practices of a 'primitive' tribe are to be judged as being rational in their own right, or deemed irrational because we, the scientifically informed, know that those practices cannot *possibly* work, Winch came to the conclusion that the standards of rationality are 'internal' or 'relative' to a culture.

More recently, 'postmodern' perspectives (sometimes drawing, like Winch, on the philosophy of Ludwig Wittgenstein) have also forcefully rejected the idea of universal rationality (an idea that is part of the package of 'Enlightenment reason', which is being more globally assailed (cf. Lyotard 1988)). They deny the existence of a universal rationality, or of an external reality independent of our thought. This is because (they assume) the only way in which human beings can have access to 'reality' is through language and the understandings associated with that. Nor is there any way in which we can escape our preconceptions except by embracing another set of preconceptions. (There are always people who live by different preconceptions than our own.) Reality is a 'social construction'.

Some postmodernists have argued against 'rational' conceptions of the individual not only because they resist the idea of universal rationality, but also because they share at least some aspects of Sigmund Freud's conception of the individual mind as something that is itself internally divided. The idea of the rational individual characteristically relates to the individual's *conscious* operations. However, if Freud was on the right track, then the role of consciousness in the explanation of the individual's action is greatly overrated. Individual conduct is propelled by operations in the unconscious, beyond the awareness of the individual. (Some writers would include here the impact of sociocultural structures such as the language as well as the unconscious impulses of the individual.) Consciousness is therefore doubly 'de-centred', i.e. demoted from the place it has more usually occupied in social thought. First, the actions of individuals are not be explained solely with reference to the operations of the individual consciousness, but are to an important degree to be explained rather with reference to impersonal sociocultural structures. Second, and more fundamentally, consciousness is not the sole or necessarily the dominant feature of the individual mind. Such a view culpably neglects the role of the unconscious.

Precursors of the idea of 'social construction' can be found in two traditions of US sociology where, however, the assumption is that reality is as it is perceived (or 'defined'). Their rationale is perhaps methodological rather than epistemological. It is directed towards gaining leverage in the development of empirical methods in sociology. The assumption is that whatever philosophers or natural scientists may tell us, people everywhere act in response to reality as they experience it. Therefore, *for sociological purposes*, the need is to understand the point of view from which people act, to grasp the world as they see it, an objective that is characteristically neglected and/or underestimated in sociological research. These two traditions (symbolic interaction (Blumer 1969) and ethnomethodology (Garfinkel 1967)) both assume that the central empirical task is to recover the actor's point of view. The survey method, which is a prevalent method for finding out the individual's point of view, is regarded as an ineffective way of accessing the actor's point of view *in action*. Both these schools aim to access the actor's viewpoint as it is situated in the context of action, to understand how actors are defining the situation throughout ongoing courses of action. At this level of abstraction, the two approaches may seem broadly the same, and both commonly resort to field studies in preference to the survey, but otherwise they tend to pursue their objectives in very different ways.

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SEE ALSO: role; structure and agency

ADOLESCENCE

The life stage, adolescence, is most readily defined by what it is not. Adolescents are no longer children but not yet adults. They are in a transitional status: their role in society is ambiguous and their connections to adult worlds may be limited. Some anthropologists have argued that nearly all cultures have had an adolescent-like transitional period. But in most traditional groups it is short due to early marriage and assumption of adult work responsibilities (Schlegel and Barry 1991), and many of these groups provide a well-articulated path into adulthood that keeps youth connected to adults and adult institutions. Margaret Mead (1928) and Ruth Benedict (1939) described how traditional societies provided role continuity, in which youth were progressively groomed to take on the adult roles of their parents.

In Western nations this transition became longer and more discontinuous as a product of industrialization and associated societal changes in the early twentieth century. Transformations in the labour market meant that youth were less likely to follow parents' line of work. Education became increasingly important to adult employment, and hence the years youth spent in school increased – and have kept increasing with the transition to an information society. Schools separated youth from adults, which meant that youth spent more time with peers, leading to the growth of the peer group and peer culture. At the same time, improved nutrition resulted in puberty occurring earlier, which combined with later marriage created a long period during which youth experienced sexual desire without having societally acceptable paths for directing it. These changes not only made adolescence longer and more discontinuous, but also they put a greater burden on youth to find their own way, a situation that creates more frequent stress and mental health problems.

This emergence of a similar modern adolescence has since been occurring across nations of the world as they have gone through similar economic and societal changes (Brown *et al.* 2002). Shifts in labour markets and increased rates of secondary education have expanded the transitional adolescent phase and created some of the same discontinuities and stress for young people, particularly for the large numbers of youth in poor families (Dasen 1999). Caution is needed, however, in too quickly assuming that adolescence is the same across the world. Regional differences in cultures, job markets and social systems mean that young people experience different norms, choices, supports and risks. As one example, although European and US youth are expected to develop emotional independence from their families, in India that expectation remains foreign; youth cultivate strong emotional interdependency with their families into adulthood (Larson and Wilson 2004). It would be most accurate to say that there are multiple 'adolescences' across cultural groups, with wide divergences also occurring between rich and poor, and between boys and girls, in these settings.

The perspective of developmental psychology

Although the life stage of adolescence is clearly a social construction, there are physiological and cognitive dimensions of adolescence that are not solely products of social processes. Psychologists view adolescence as a developmental phase in which brain systems mature and individual youth actively adapt to their environments. Development is an interaction of bio-psychosocial processes.

A host of biological changes occur during puberty that feed into adolescents' development. The most obvious consist of a growth spurt and the development of secondary sex characteristics. Less overt changes include dramatic reorganization of parts of the brain and increased hormonal activity. There is a massive reduction in the number of connections among neurons in the cerebral cortex occurring throughout adolescence and the two hemispheres of the brain show increased ability to process information independently of each other (Spear 2000). Although major hormonal changes occur during puberty, the relationship between these changes and adolescent behaviour appears to be weak at best. Though adolescents do experience wider mood swings than adults (Verma and Larson 1999), research suggests that this is more related to stress and other psychosocial factors than to hormones (Buchanan *et al.* 1992). The important horizon for current research is to understand how these various biological changes, including increased expression of individual genetic differences during adolescence, occur in the context of environmental and social experiences: How do processes at all these different levels interact, and modify each other? (Zahn-Waxler 1996).

As children enter adolescence they also undergo cognitive changes that enable them to perceive and interact with the world in increasingly abstract and complex ways. Research shows that they become able to think about and understand abstract concepts like time, culture and love more deeply than they did as children. Although wide variability is seen across youth, many begin to approach problem-solving in more systematic ways. They are more likely to view a problem in the context of a system of elements: thinking about all possible combinations of elements in the system, changing one variable at a time within the system while holding others constant, and understanding how different variables are related to each other in any given situation. Cognitive changes also result in the ability to engage in critical thinking. Adolescents may begin to recognize inconsistencies in the world (Keating 1980). Identification of these changes in thinking has come almost exclusively from research with Western adolescents, thus it is difficult to know how universal they are and to what degree they are a result of socialization versus the maturation of brain systems. Evidence suggests, however, that acquisition of abstract reasoning and critical thinking is partly the product of schooling. Adolescents develop and are taught the adult ways of thinking appropriate to their society (Cole and Scribner 1974).

Current psychological theory also stresses the active role that youth play in adapting to the world. They are not passively shaped by their environment; they are active agents of their own development. They respond to challenges in the environment, make choices and draw on resources available to them. This active view of youth is particularly suited to modern adolescence, in which young people face diverse and ambiguous pathways into adulthood. One useful framework conceptualizes adolescence as presenting a set of implicit psychosocial 'developmental tasks' that youth need to address. In Western societies, these tasks include coming to terms with one's sexuality, developing socially responsible behaviour, and Erik Erikson's (1968) task of achieving identity. This active view of adolescents is also used by sociologists and historians, who have studied how societal and economic changes shape the employment and role choices available to adolescents and how the choices they make in turn affect the pathways experienced by the next generation of youth (Modell 1989; Shanahan and Elder 2002).

Development in contexts

The shift to industrial and postindustrial society has resulted in adolescents' daily lives being segmented into separate spheres, and much of adolescent scholarship focuses on their experience in these different contexts. Family, peers and school are the contexts that have received most attention, and each can be seen as an arena in which cultural, societal and psychological processes interact.

The family continues to be an important context for basic emotional and identity development. But changes in the family and its relationship to society have changed and sometimes challenged how it plays this role. Longer adolescence means that young people spend a longer time dependent on their nuclear family, and smaller family sizes allow families to provide each child with more attention and resources. Yet climbing rates of divorce, increased employment demands on parents and competition for adolescents' attention from peers, media and other sources can make it more difficult for families to have a guiding role in adolescents' lives.

In most societies, teenagers today spend less time with family and more time with peers than was true in the past, and peers have more influence. Research indicates that this influence can be positive – peers are an important context for learning mutuality and pro-social behaviour. But peers can be a source of bullying and negative influence, from which teenagers acquire anti-social behaviour patterns. In many parts of the world adolescents are engaging in romantic and sexual relationships at earlier ages, which puts them at risk for sexually transmitted diseases, unwanted pregnancy and exploitative experiences. Research shows that initiation of romantic and sexual activity in early adolescence is associated with more negative outcomes (Zimmer-Gembeck *et al.* 2001).

Although schools are increasingly important to adolescents' preparation for adult work, educators have not yet found ways of successfully engaging all students in learning. Many Asian nations have created demanding tests to motivate and certify young people's school work, yet these exam systems also create high levels of pressure and stress on youth. In Western nations, adolescence is an age period when boredom and alienation in school increase and achievement levels fall for many youth, severely limiting the occupational choices those youth will have as adults. An important challenge for the future is to develop modes of education that allow all youth, including those with learning disabilities, to fulfil their potential so they can have desirable adult choices within the new global information society.

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SEE ALSO: developmental psychology; life-span development

AFFIRMATIVE ACTION

Affirmative action can be defined in conceptual, legal and operational terms; no single definition is possible. The United States Commission on Civil Rights offers the following conceptual definition: affirmative action is 'a term that in a broad sense encompasses any measure, beyond simple termination of a discriminatory practice, adopted to correct or compensate for past or present discrimination or to prevent discrimination from recurring in the future'.

Legal definitions vary with jurisdiction and social domain. Many countries have enacted equal-opportunity and affirmative-action laws. These laws differ in terms of the target groups, the actions that are permitted and forbidden, penalties for violation, etc. In the USA, federal affirmative action regulations are supplemented by state and municipal laws and ordinances. Furthermore, the laws that constrain affirmative action in the workplace are related but not identical to those that control affirmative action in university and college admissions. At the federal level, the Equal Employment Opportunity Commission (EEOC) and the Office of Federal Contract Compliance Programs (OFCCP) are responsible for most equal opportunity and affirmative-action regulations and enforcement. (Details can be obtained from their websites.)

Although constrained by applicable laws, the actual practice of affirmative action is quite varied. In the USA, for example, federal workplace affirmative-action regulations require organizations to take certain actions, such as establishing anti-discrimination policies and completing an annual utilization analysis that compares the demographic distribution of the organization's workforce to the distribution in the relevant labour market. If the utilization analysis indicates that some protected group is underrepresented, the organization must establish goals and timetables for the elimination of the underrepresentation, and must specify the actions that will be taken to attain these goals. Although the law constrains those actions (e.g. they may not include explicit quotas), a great variety of procedures are permissible. Recent United States Supreme Court decisions have determined that quotas and explicit plus points are illegal in college and university admissions, but some positive weight can be given to minority status in the context of an individualized admission process.

Regardless of the law, it is clear that a large proportion of the white public in the USA equates affirmative action with quotas and preferential treatment both in the workplace and in college and university admissions. The actual extent of such preferential actions is unknown, but they evidently do occur.

The effects of affirmative action

When considering the effects of affirmative action, the interests of various stakeholders must be taken into account. The primary stakeholders are the target groups, other non-target groups, organizations that have affirmative action plans (AAPs) and society at large.

The phrase 'effects of' implies a causal relation. However, causal conclusions can rarely be drawn in affirmative-action research because scholars cannot control whether organizations have AAPs or the dimensions (e.g. race and gender) that determine who is targeted by those plans.

The purpose of affirmative action is to improve the outcomes of target groups. Research indicates that the size and even the existence of demonstrated benefits on employment have varied across time, location, target group and job level (Holzer and Neumark 2000; Smith 2001). In addition, minority status (African American or Hispanic) contributes to college and university admission only among the most selective institutions, where it increases the probability of admission by up to 10 per cent (Kane 1998). Among African Americans, admission to such selective colleges and universities is associated with an increased probability of graduation, post-baccalaureate education and professional success (Bowen and Bok 1998).

On the other hand, the use of affirmative action in the USA is associated with decreased employment outcomes for white males (Holzer and Neumark 1999, 2000). The relative paucity of 'reverse discrimination' charges filed with the EEOC suggests that these effects are due primarily to the elimination of the privileges often enjoyed by white males rather than to the use of strong preferences for female or minority applicants. Because elite universities reject so many whites and accept so few minority students, the negative impact of affirmative action on white applicants is quite small (Kane 1998). On a broader scale, the long-term effect of having a diverse student body appears to be positive for all groups and for society as a whole. Diversity in higher education is associated with individual changes in attitudes and abilities that enhance participation and success in an increasingly diverse democratic society (Bowen and Bok 1998; Gurin *et al.* 2004).

Opponents of affirmative action argue that workplace AAPs depress the performance of organizations, which are forced to hire less competent employees. Supporters argue that affirmative action improves organizational performance by eliminating economically inefficient discrimination and increasing workforce diversity. Research finds that organizations that use affirmative action in selection tend to hire minority individuals whose educational credentials are slightly lower than those of their white male hires. However, this difference in education does not lead to a corresponding difference in performance, perhaps because these organizations have developed superior human resource practices that enable them to identify high potential individuals and improve their capacities after they are hired. In short, workplace affirmative action does not appear to have a substantial effect, either positive or negative, on organizational performance (Holzer and Neumark 1999, 2000).

An important question is whether individuals who are selected in the context of an AAP are stigmatized by others. The discounting principle of attribution theory suggests that one's confidence in the importance of a potential cause is lower when other plausible causes are available. For example, if a Hispanic man is hired by an organization with an AAP, two plausible causes for his selection are competence and ethnicity. But if the organization does not have an AAP or if the new hire is a white male, the remaining plausible cause for selection is competence. Ratings of the new hire's competence would therefore be lower when he or she is a target group member than in other situations. Experimental research finds precisely this effect. This stigmatization can be eliminated by providing unequivocal evidence of the new hire's competence, but it is not eliminated by ambiguous evidence of competence (Heilman *et al.* 1998). Given the continued prevalence of negative stereotypes of racial minorities, along with the common assumption that affirmative action involves preferential selection, it is likely that stigmatization is relatively common. Although most research on stigmatization has focused on the workplace, the same logic applies to college and university admissions. Virtually all research in this area has been limited to evaluations of paper stimuli; the extent to which such stigmatization is maintained in the context of workplace interactions is unclear.

A frequent criticism of affirmative action is that it has negative psychological effects on target group members, causing them to doubt their own competence, to choose less challenging tasks, and/or lose interest in the job. These effects could be due to the discounting principle mentioned above and to the self-threatening implications of being helped (Turner and Pratkanis 1994). Laboratory experiments have shown that white female undergraduates experience self-doubt and sometimes choose less challenging tasks when they are told that they have been selected for a leadership role on the basis of their gender. The negative effect does not occur when selection is said to be based on a combination of merit and gender, and it can be eliminated by providing unambiguous evidence of the woman's competence (Heilman *et al.* 1998). Similar negative effects are not observed among white men, and some limited research suggests that such effects are less common among racial minorities than white women. Initial self-confidence in one's ability seems to play a critical role in determining the occurrence of such self-stigmatization. Because it is uncommon for employees to be told that they were selected solely on the basis of their demographic status, the implications of this finding for the workplace are not clear. However, Brown *et al.* (2000) found an inverse relation between students' suspicion that their race or ethnicity helped them get admitted to the university and their college GPA. This finding is consistent with the logic of self-stigmatization, though the observational nature of the study precludes causal conclusions. The authors speculate that it may be related to the experience of stereotype threat.

What factors predict attitudes towards affirmative action?

Most research on affirmative action has assessed the factors that predict attitudes. The two most important types of predictors are the details of the AAP and attributes of the respondent.

One of the strongest predictors of attitudes towards workplace affirmative action is AAP strength – the weight given by the AAP to demographic status in selection decisions (Kravitz 1995). Among whites, the elimination of discrimination is preferred to opportunity enhancement procedures, which in turn are preferred to weak preferences (the use of demographic status to break ties). Strong preferences are widely disliked. Racial minorities also reject strong preferences, but they distinguish to a lesser extent than whites among the weaker plans. Research on reactions to affirmative action in college admissions has not manipulated AAP strength so precisely, but whites clearly prefer that demographic status be given no weight.

A number of studies have associated attitudes towards affirmative action with respondents' demographic characteristics, notably race and gender. African Americans express the strongest support for affirmative action. Hispanics and Asians express intermediate levels of support, and whites are the least supportive. This is true in judgements of affirmative action both in the workplace (Kravitz *et al.* 1997) and in university admissions (Sax and Arredondo 1999). The effect of gender is weaker, with support typically somewhat higher among white women than men; evidence for gender differences among racial minorities is quite mixed.

There are positive intercorrelations among the three most consistent individual difference predictors of affirmative-action attitudes: prejudice, conservative political ideology and the belief that discrimination is no longer a problem. One of the strongest predictors of white opposition to affirmative action is prejudice against the target group (racism for AAPs that target African Americans; sexism for AAPs that target women). Opposition to affirmative action is also stronger among conservatives and Republicans than among liberals and Democrats. There is some evidence that the predictive power of both prejudice and conservatism increases with the respondent's education (Federico and Sidanius 2002). Finally, support increases with the belief that target group members continue to experience discrimination (Konrad and Hartmann 2001).

There is considerable evidence that support for affirmative action is associated with the anticipated effects of the AAP on the individual (personal self-interest) and the individual's demographic group (collective self-interest). Indeed, group interests and conflict are central to several theories of affirmative action attitudes (Krysan 2000). However, the strongest predictor is whether or not the respondent judges that the AAP is fair (Kravitz 1995). Indeed, issues of perceived fairness are implicit in virtually all the factors that influence attitudes towards affirmative action.

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SEE ALSO: education; equality; ethnic politics; human rights; justice, distributive

AGE–SEX STRUCTURE

The age–sex structure of a population is its distribution by age and sex. The classification of the population according to age and sex can be given either in absolute numbers or in relative numbers, the latter being the ratio of the population in a given age–sex category to the total population of all ages for both sexes. The age distribution is given either in single years of age or in age groups, for example 5-year age groups. Broad age groups such as 0 to 14, 15 to 59, 60 and over are also sometimes used. The grouping of ages depends on the degree of precision desired, and on the quality of the data at hand. If data are defective, as in some developing countries where people do not know their precise age, the classification by age groups is often to be preferred to the distribution by individual year of age, even if this implies a loss of information.

A graphic presentation of the age–sex structure of the population is the so-called *population pyramid*. This is a form of histogram, absolute or relative population figures being given on the axis of the abscissa, and age or age groups being represented on the ordinate. Male data are given on the left-hand side of the axis of ordinates and female data on the right-hand side. The areas of the rectangles of the histogram are taken to be proportional to the population numbers at each age or age group.

Figure 1 presents as an example the population pyramid of the Belgian population, on 1 January 2001. The y-axis refers to age and the corresponding year of birth, while the x-axis gives the absolute population numbers. As discussed below, at very young ages there are more boys than girls, due to the higher number of boys than girls at birth. At older ages, on the contrary, there are more females than males as a result of male excess mortality at all ages. Further, the age

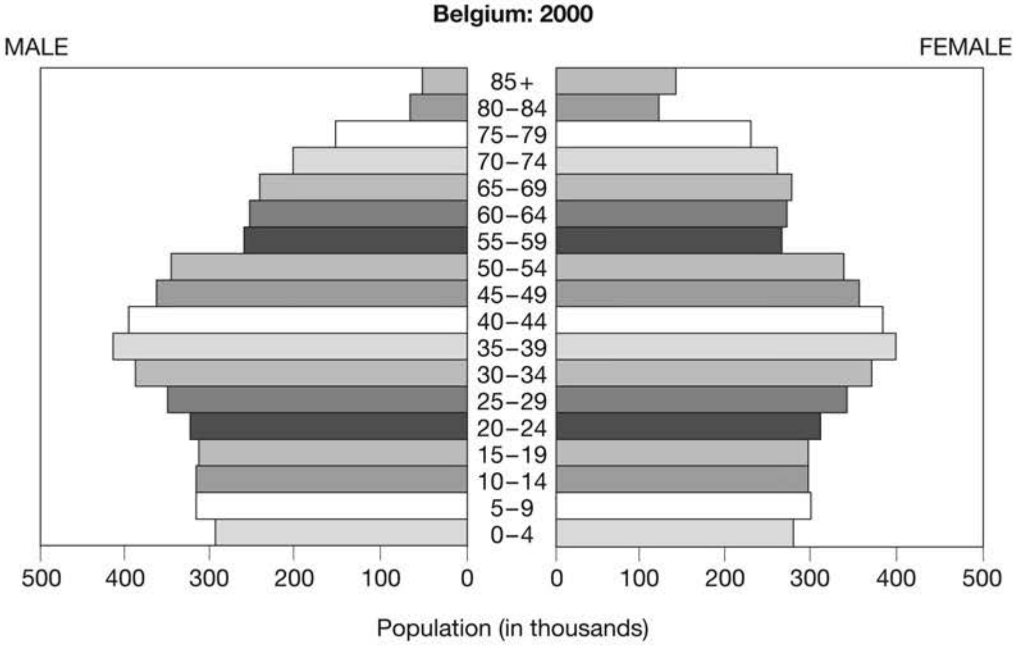

Figure 1 Population pyramid of Belgium, 1 January 2001 (absolute numbers)

Source: US Census Bureau, International Data Base group 55 to 60 is less numerous than the adjacent groups. This is due to the postponement of births during the Second World War (birth cohorts 1940 to 1945). Postponement of births also occurred during the First World War and its impact is still to be noted in the population pyramid (age group 81 to 86). The pyramid represents an aged population, with a low proportion of young people and a high proportion of adults and older people. The base of the pyramid is narrow due to current low fertility levels.

Another useful graph shows the differential distribution of sexes by age, presenting sex ratios by age or age group. Sex ratios are obtained by dividing the number of males in each age group by the corresponding number of females. The results are often called *masculinity ratios*. Masculinity ratios tend to decrease with age. At young ages there are usually more boys than girls: approximately 105 male births occur per 100 female births. As age increases, masculinity ratios decline and become lower than 1, due to higher age-specific probabilities of dying for males than for females. On the whole, there are usually more females than males in the total population, due to excess male mortality. Masculinity ratios by age are also dependent upon the impact of migration. If migration is sex-specific, masculinity ratios will reflect this phenomenon at the ages concerned.

Demographers often speak of young or old age structures. In the former case, the proportion of young people in the population is high. In the case of an old structure, the contrary is true. Young population age structures are essentially linked to high fertility. Ageing population structures are characterized by declining fertility. The impact on age structure of a decline in mortality is much smaller than that of fertility decline, as the decrease in risks of dying affects all ages simultaneously. If decreases in risks of dying occur mainly at young ages, lower mortality will actually rejuvenate the population. In present-day low-mortality countries, probabilities of dying have reached such low levels at young ages that the impact of further decreases in mortality at these ages on the population pyramid is small. On the other hand, mortality at older ages is decreasing due to the reduction in mortality from chronic diseases, especially cardiovascular diseases. These gains in life expectancy at older ages have now become the principal factor of population ageing in developed countries.

Internal migration can have a significant impact on population age structure at the regional level. A town may attract young adults thanks to economic or educational opportunities, for example. Pensioners tend to choose locations with an agreeable climate and good health services. Rural areas often have ageing populations as the young move to cities. *International* migration can sometimes influence the age–sex structure of the population of a whole country, such as that of Kuwait for example, where there has been an influx of largely male workers.

If fertility and mortality remain constant over time, and the population is closed to migration, a *stable* age structure will eventually result in the long run: the age distribution becomes invariant and depends solely on the age-specific fertility and mortality schedules. This property has been demonstrated by A.J. Lotka and is known as *strong ergodicity*.

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SEE ALSO: vital statistics

AGEING

Studies pertaining to ageing play a prominent and increasing role in the biological sciences, public health, social work, and the behavioural and social sciences. At the individual level, the word 'ageing' can refer to a biological process, the transitions and transformations that occur to individuals in the latter portion of their life-span, or the well-being – in terms of physical and mental health, economic conditions, work and leisure – of those at older ages, often demarcated at 60 or 65. At a societal level, the word can connote the demographic processes that determine the portion of the population at the older ages as well as the socioeconomic and cultural implications for a society that experiences changes in its age composition.

An influential World Assembly on Aging held under United Nations auspices in 1982 codified in their plan of action many of the aspects of ageing under the rubric of 'humanitarian' and 'developmental' concerns (United Nations 1983). The humanitarian issues related to the conditions of the elderly and their needs while those termed developmental related to the societal implications of older age structures, in particular the effects on production and productivity, earnings levels, and associated socioeconomic conditions and policies.

Many of these concerns are of course not new, and the perception of old age as a 'problem' for Western countries appeared in early twentieth-century literature, if not before, according to Achenbaum (1996). He also notes that the term 'gerontology', referring to the scientific study of aspects of growing older, was coined in 1908, and the term 'geriatrics' in 1914.

Nonetheless, ageing is now the focus of renewed attention, as a consequence of current and projected population trends that show large increases in the number and proportion of older people in all regions of the world. Declines in fertility and extensions of life expectancy (changes that are expected to continue) have resulted in dramatic changes in the age composition of populations. According to United Nations projections, the percentage of the population aged 60 years or older will grow from 20 per cent in 2002 to 33 per cent in 2050 in the more developed regions, and will grow from 8 per cent to 19 per cent in less developed regions over the same period (United Nations 2002). In addition, the proportion of that older age group that is age 80 or older will also increase over the coming decades, exacerbating the demand for medical and nursing care as well as services from family members and social welfare programmes.

The theoretical, substantive and methodological concerns of each of the social and behavioural sciences intersect the field of ageing on numerous – and overlapping – topics. This has led to several codifications of the multiple connections, most notably in the five editions of the *Handbook of Aging and the Social Sciences* (for the two most recent, see Binstock and George 1996, 2001) and the *Handbook of the Psychology of Aging* (most recently, Birren and Schaie 2001). (A similar series of handbooks appears for the biology of ageing; see Masoro and Austad 2001.)

Sociologists have contributed to research on ageing through the examination of age stratification, cohort succession, the life course, family and social support systems and the study of social change. Anthropologists have studied effects of culture on the definition of old age and the status of the elderly (Fry 1996). Political scientists have given attention to the political implications of old-age policies and issues of generational equity (Binstock and Day 1996). Psychologists have been prominent in developing scales of depression, cognition and other key mental states. A number of these scales have been adapted for use in large population surveys, providing important data on mental health in the older population. A relatively new specialization – demography of ageing – has appeared as a distinct speciality within the broader field of demography or population studies within the last 15 years (Martin and Preston 1994). This applies the formal tools of demography to mortality trends, levels and differentials; the determinants of age composition; and population movements. Demographers are also increasingly examining broader issues of health, work and retirement, living arrangements, and intergenerational exchanges.

Economists have played a larger role in several facets of research on ageing in recent years. They have developed useful models for investigating the connections between age composition and population growth with economic development, and for understanding the motivations and implications of intergenerational support systems (Lee 2000; Lillard and Willis 1997). They have also investigated the economic status of the elderly, patterns of labour force activity and retirement, and the consequences of different types of public and private retirement programmes (Gruber and Wise 1999).

Given the number of distinct topics in ageing addressed by the social sciences, there is no single conceptuals framework shared by all researchers, even within a single discipline (Marshall 1999). One major axis of theory and research has been the effect of economic development on the well-being of the elderly, prompted in part by an influential theory of Cowgill (1974), who held that many of the dimensions of modernization tend to reduce the status of the elderly by limiting their job opportunities, separating them from their families, and lowering their social status relative to the young. This 'modernization thesis', which has also been influenced by Goode's (1963) work on the relationship of industrialization to the rise of the 'conjugal family', has been the subject of considerable discussion and research. Two recent studies examine aspects of this thesis through a close look at the well-being of the elderly in Asia (Whyte 2003; Hermalin 2002).

An important development in recent years has been the emergence of more multidisciplinary research on ageing. A major area of intersection for social scientists and epidemiologists, biologists and public health specialists is in the study of the relationships between social factors – socioeconomic levels, social support and stress – and the physical and mental health of the elderly. Social support appears to have a significant effect on health outcomes (Marmot and Wilkinson 1999). Another example of interdisciplinary research is the emerging field of biodemography, which joins perspectives from biology and demography on several methodological and substantive issues, particularly those centring on longevity (Wachter and Finch 1997).

Methodologies have become increasingly sophisticated. Researchers draw on data from censuses, vital registration, clinical studies, administrative data and smaller-scale, specialized sample surveys, and have increasingly carried out longitudinal studies. These often take the form of panel designs. The same people are interviewed every few years and may be asked a broad range of questions dealing with finances, health, health care utilization, family support, work and other key aspects of ageing. In the case of the Health and Retirement Study in the United States, the designs and questionnaires are the product of multidisciplinary teams of economists, epidemiologists, sociologists, psychologists and public health specialists (Juster and Suzman 1995; Health and Retirement Study, n.d.). A recent report from the US National Academy of Science has stressed the importance of such designs and advocated efforts to conduct comparable studies across many countries (National Research Council 2001). Efforts now underway in Europe may be followed on the websites for the English Longitudinal Study of Ageing (2003) and the Survey of Health, Aging and Retirement in Europe (n.d.).

Government officials have given increasing attention to the potentially deleterious effects of population ageing on the welfare of the older population, and to overall economic growth and development. There has been a wide range of policy responses, which vary across countries and regions. Some responses have been demographic in character, through attempts to promote earlier marriage and higher birth rates, or by liberalizing immigration policies to bring in more workers. Other policies focus on strengthening family support for the elderly as a way of containing health and social security costs, promoting greater participation of women in the labour force, upgrading the skill levels of workers, and changing the age of retirement.

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SEE ALSO: gerontology, social; life-span development; life tables and survival analysis

AGRICULTURAL ECONOMICS

The demand for food tends to be more inelastic or unresponsive to changes in prices and incomes than the demand for other goods. Therefore, shifts in supply, due for example to weather shocks or new technologies, have disproportionately large effects on agricultural prices and incomes. However, as incomes increase, the share of income spent on food eventually declines, a dynamic known as Engel's Law. In the USA, slow growth in per capita demand for agricultural products stands in contrast to the rapid growth of productivity in agriculture. This has resulted in falling prices in agriculture relative to the rest of the economy. Programmes to support the incomes of agricultural producers as they adjust to changing economic realities are a major concern of politicians as well as agricultural economists, as are efforts to minimize the costs of such programmes.

At low levels of income most of a country's population and economic activity are in agriculture. This is true of poor countries today as well as of today's rich countries in the past. Agriculture's share of total gross domestic product (GDP) was much greater than that of industry until well into the nineteenth century in France and the UK. Today, it accounts for 3 per cent of GDP in France and 1 per cent in the UK, but agriculture still accounts for as much as 60 per cent of GDP in a number of less developed countries (World Bank *Development Report* 2003).

Agriculture is closely linked with non-agricultural sectors at all levels of development. Low-income countries look to agriculture as a source of food, labour, capital (through taxation or agricultural price policies) and foreign exchange (via agricultural exports) needed for growth in the non-farm economy, and as a market for manufactures. In high-income countries, although agriculture represents a small share of total GDP, many non-agricultural activities supply inputs to farms (e.g. fertilizer and other intermediate inputs, machinery and various support services) or to process farm output. In 1997, only 2 per cent of all US jobs were in farm production but 15 per cent were in farm or farm-related sectors.

Agriculture is different from other sectors of the economy in ways that have far-reaching ramifications for research agendas and analytical approaches. The agricultural production process relies heavily on inputs from nature (land, weather). Production is carried out by farmers with unequal access to resources, from large agribusinesses (sometimes referred to as 'factories in the fields') to hundreds of millions of small farmers. Its supply is volatile, shaped by spatial, temporal and stochastic variables, including pest and weather risks that do not arise in manufacturing, where production processes are governed by engineering relationships. In most cases agricultural production decisions are made within economic units that are also households. Agricultural production involves long time lags between purchasing and applying inputs and harvesting outputs, with both the output price and quantities unknown at planting time. Farming requires land, so agriculture is dispersed over wide geographical areas. It involves a vast number of decisions by many actors. Because agricultural production is spread out, seasonal, naturally risky and involves long lags, timely access to diverse markets is critical, including markets for inputs, output, credit (to finance input costs ahead of harvests) and insurance.

Heavy government intervention in agriculture has moved resources off farms and into cities in poor countries, and has subsidized farmers in rich countries. Agricultural policies are both socially and politically driven. The dispersal of agriculture over wide geographical areas bolsters its political power in systems that elect representatives by area, such as the US Senate. The political importance of agriculture, in turn, results in the channelling of significant public resources into agricultural research. Internationally, major trade negotiations break down in the area of agriculture because most developed countries protect and/or subsidize their agricultural producers more than they protect other sectors of the economy. However, most of the world's agricultural producers (and consumers) are in less developed countries, which have a wide diversity of agricultural policies.

Early agricultural economics research emphasized farm management. As the field developed it raised its sights beyond the farm gate, on both the output side (food processing, consumer economics and retailing) and the input side (farm labour, natural resource use in agricultural production, farm credit and insurance). The issues addressed have changed over time, reflecting the continuing transformation of systems of agriculture and world markets.

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ALCOHOLISM AND ALCOHOL ABUSE

Beverage alcohol consumption occurs in most societies, and an extensive anthropological literature documents worldwide variations in the social patterns of alcohol use (Gefou-Madianou 1992; Heath 2000; McDonald 1997), much of it emphasizing the integrative functions served by alcohol consumption, a theme that also informs early sociological studies of the topic (Bacon 1943). Organized social research and publication in industrialized nations have, however, increasingly moved away from viewing alcohol as an integral part of community, work and family life. Modern sociological research deals almost exclusively with the problems associated with the use of alcohol. This is due in part to cultural ambivalence towards this potent yet widely available drug (Room 1976), but is also a consequence of the political and economic investments that have accumulated around the production and distribution of alcohol and the myriad of organizations involved in prevention, intervention and treatment of alcohol problems (Wiener 1980). The result is that research funding is very largely targeted on dysfunctions and problems associated with alcohol, and most research by social scientists in alcohol studies is grounded in four overlapping concerns: harm associated with alcohol consumption, the medical disease of alcohol dependence or alcoholism, the co-occurrence of both alcohol consumption and alcohol dependence with other physically and socially destructive behaviours, and the social and organizational characteristics of interventions designed to deal with problems of alcohol consumption and alcohol dependence.

This represents a narrowing of earlier interests. Since the 1960s, researchers had identified social factors in the aetiology of alcohol dependence. Trice (1966) offered a theory of individually rewarding drinking experiences followed by selective and sequential associations with drinking groups within which increasingly heavy and chronic alcohol use was socially accepted. In a similar vein, Akers (1977) developed a model of patterned rewards in social interaction wherein alcohol dependence could develop. Bacon (1973) and Mulford (1984) constructed somewhat parallel theories centred on the interaction of self- and social definitions over time as alcohol dependency and recovery evolved. Building on the work of other researchers who had examined homeless and disaffiliated alcoholics, Wiseman (1970) uncovered social patterns and social structure in the lives and interactions within these groups. She later documented patterns of social interaction in couples where the husband was a recovering alcoholic, strongly suggesting that social role relationships could develop around a spouse's chronic alcoholism and serve to prolong it (Wiseman 1991).

Despite considerable promise, these aetiological studies did not attract research support. Social theories of alcoholic aetiology may be seen as potentially supportive of controls on alcohol availability, and so they are unpopular within the drinks industry. Instead the explanation of aetiology has shifted almost exclusively towards a biomedical model of causation, based on inferred individual variations in alcohol metabolism, and often suggesting that these aberrant patterns are caused by genes. Such hypotheses are consistent with a disease model of alcoholism that has been the cornerstone of much research and practice, particularly in the USA since the Repeal of National Prohibition. (Prohibition was adopted in the USA in 1919 and repealed in 1933.) The disease model suggests that a minority of the drinking population is at risk for developing drinking problems due to biological reasons outside their control. By inference, this model implies that the vast majority of the population can drink without physical harm or social consequence, thus undermining support for the strategy of universal prohibition. Given the argument that those afflicted by the disease of alcoholism can recover through lifelong abstinence, the concept of prohibition is effectively shifted away from the entire population and focused exclusively on a small segment. It is evident that the centrality of such a model would be supported by the drinks industry, which constitutes a substantial political force in most industrialized nations.

While institutional forces have come to discourage social scientists from paying attention to the causes of alcohol problems, their expertise has been called on to examine the consequences of drinking (Gusfield 1996). Studies of these consequences have drawn attention to different social groupings and institutions over the past 75 years.

From the ending of Prohibition to about 1960 the central icon in the definition of alcohol problems was the homeless public inebriate. The social problem of alcohol, which had only recently been 'resolved' through the Repeal of Prohibition, could be seen as manageable if it was centred and contained in this small and socially isolated segment of the population. This group was managed through periodic imprisonment for short terms and came to be characterized as a 'revolving door' population because its members kept returning to jail. Social activism became oriented towards 'decriminalizing' public inebriates and directing them towards treatment for their alcoholism, which would move them in the direction of recovery and social reintegration. While legislation was passed to support decriminalization, it did not compel a high degree of public interest.

From the 1960s to the 1990s, the central symbol of the problem shifted away from a tiny segment of the drinking population towards a large majority, the hidden alcoholic in the workplace, who collectively were said to constitute 95 per cent of the alcoholic population while the public inebriates made up only 5 per cent (Roman and Blum 1987). Intervention mechanisms were developed in the form of employee assistance programmes that were designed to identify and direct employed persons with alcohol problems into newly developed systems of treatment designed specifically for 'respectable' segments of the population. The growth of such privately based treatment in the USA was substantially supported by legislatively mandated health insurance coverage.

In the 1980s and 1990s, a shift occurred away from the 'rehabilitative ideal' (Garland 2001) and towards a demonization of persons with alcohol problems. The first step was the discovery of the 'drinking driver', and the imposition of various means of social control to detect and punish such behaviour (Jacobs 1989). This led to a tendency to use alcohol impairment as the explanation of all injury, damage and death in traffic mishaps if evidence of alcohol consumption by drivers could be established.

The major factor that fostered the demonized view of the alcohol abuser was the escalation of efforts directed towards the prohibition of illegal drug traffic in the USA and the intermingling of imagery (and treatment) of alcohol and drug users. Constructive work-based programmes for alcohol problems were challenged by the rise of federal support for workplace testing for illegal drug use, and the suggested elimination of drug users from employment (Roman and Blum 1992).

As the new millennium began, the demonized imagery remains but has been supplemented by a new target population, college age youth. A substantial research investment in prevention and intervention of alcohol and drug problems in this group has been made in the USA since the early 1990s. Social scientists have been at the forefront of designing these strategies. Curiously, these strategies do not pay attention to the larger segment of youth that enters the workforce after secondary education or a brief college experience, and does not attend residential higher education. This emphasis coincides with the drawing of sharp new lines of socioeconomic stratification in the USA as well as other Western nations, and may reflect the direction of alcohol-related societal resources towards that segment of society perceived to have the greatest social value.

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SEE ALSO: drug use; social problems

ALIENATION

Alienation (in German *Entfremdung*), sometimes called estrangement, is claimed to be a phenomenon of the human or social world. It is usually identified in psychological, sociological or philosophical-anthropological terms derived especially from the writings of Hegel, Feuerbach and Marx – though already in Calvin there is an account of the alienation of man from God by original sin.

In Hegel (1971 [1807]), we find in particular the claim that the sphere of Spirit, at a certain stage in history, *splits up* into two regions: into consciousness and its object, being. Thus self-consciousness ‘disintegrates’ and thought and reality become ‘entirely estranged’ one from another. In this sense the division of man from nature is considered an alienation: man is himself split into part subject and part object; ‘self’ is divided. This state of alienation can and will be overcome only when the division between Spirit and Nature is finally overcome.

Hegel’s objective-idealist philosophy of history was challenged by Feuerbach (1936 [1841]), whose critique centred precisely on a rejection of Hegel’s conception of the process of alienation. It is not that Feuerbach takes the ‘separation’ between subject and object to be a philosophical myth. But this separation, he argues, is assigned by Hegel the status of a ‘false alienation’. For while man is real, God is an imaginary projection: ‘the consciousness of God is the self-consciousness of man, the perception of God the self-perception of man’. Nor is nature a self-alienated form of the Absolute Spirit. Yet this reference to a ‘false’ alienation in Hegel suggests the existence of something like a ‘true’ alienation. And Feuerbach does indeed believe in such a thing; for it is, he argues, only in some relation of contact with the objects that man produces – in so producing them, separating them off from himself – that he can become properly self-conscious.

Marx (1975 [1844]) disagrees. He argues that it is precisely by creating a world of objects through his practical activity that man proves himself as a conscious species-being, but that under capitalism the objects produced by human labour come to confront him as something *alien*. So the product of labour is transformed into an alien object 'exercising power over him', while the worker's activity becomes an alien activity. Marx adds that man's species-being then also turns into a being alien to him, estranging him from his 'human aspect', and that man is thereby estranged from man.

Marx's early writings, including the so-called *1844 Manuscripts*, were (re)discovered in the 1930s. Thus it was that in the following period some of their themes, including that of 'alienation', found their way into political, sociological and philosophical writings of various – Marxist but also non-Marxist – authors. A psychological version of alienation theory also exists, partially derived from Hegelian notions (see below). The concept also has an ethical aspect: alienation is usually considered (whatever theory it derives from) to be a bad or unfortunate thing, deserving if possible of rectification. Alienation has been said (Sargent 1972) to be 'a major or even the dominant condition of contemporary life'. An abundant literature exists on the varied uses of the term (see Josephson and Josephson 1962).

Lukes (1967) has identified a fundamental difference between two concepts that are, he claims, often confused: that of alienation, and that – introduced by Durkheim – of anomia. For Durkheim the problem of anomic man is that he needs (but lacks) rules to live by, setting limits to his desires and to his thoughts. Marx's problem is rather the opposite: that of man in the grip of a system from which he cannot escape.

Althusser (1969 [1965]) developed a powerful critique of the notion of alienation as used by the young Marx, claiming that it was a speculative category abandoned by Marx in his later, mature works.

It may finally be noted that the term 'alienation' appears in the psychoanalytical writings of Lacan (1977 [1966]), in the context of his theory of the 'mirror stage' in child development. This stage is said to establish an initial relation between the organism and its environment, but at the cost of a 'fragmentation' of the body, the fragments being divided up against themselves. This may sound rather like a corporeal version of Hegel's notion of the divided personality; and Lacan was indeed influenced by Hegel. It is, according to Lacan, in the relation between human subject and language that 'the most profound alienation of the subject in our scientific civilization' is to be found.

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SEE ALSO: Marx's theory of history and society

ALTRUISM AND CO-OPERATION

Gift giving and sharing are universal. Individuals in teams and groups work towards a common goal. Fishermen co-ordinate their fishing effort equitably, sharing the available catch on a fishing ground. Parents sacrifice themselves for their children. People help others in distress, give blood and may even donate a bodily organ to a stranger whilst still alive. In the Second World War some hid Jews from the Nazis at the risk of their own lives, and in 1981 IRA hunger strikers died voluntarily for their cause.

Theories of the origin of such co-operative and altruistic acts have come from both evolutionary and cultural sources (Fehr and Fischbacher 2003). Defining altruistic and co-operative acts in terms of their consequences, altruism is an act that benefits the recipient at a cost to the actor, while co-operation benefits both parties. A pair of mutually reciprocated altruistic acts whose benefits outweigh their costs can therefore make up a single co-operative exchange. While Darwinian evolution is commonly equated with a competitive struggle for existence, theories developed since the 1960s have shown that altruism towards kin (Grafen 1991), and unrelated individuals, are both favoured by natural selection under certain conditions. Kin-directed altruism is favoured since relatives have a high chance of carrying the genes predisposing the altruist to selfless behaviour. This means that if the altruist's loss of fitness is outweighed by the relative's gain (devalued by the chance that the genes in question are carried by the relative), genes predisposing individuals to altruism will be favoured overall and spread through the population. The ubiquitous favouring of close kin is probably the result of such evolutionary forces.

The problem for the evolution of altruism between unrelated individuals is cheating, since those who receive without giving do best of all. When cheating can be punished by the withdrawal of altruistic acts in the future, however, an evolutionary game theory analysis shows that tit-for-tat reciprocation (rewarding altruism with altruism and punishing selfishness with selfishness) results in greater rewards than egoism (Axelrod 1984). Reciprocation is an 'evolutionarily stable strategy', meaning that it becomes the population norm, replacing competing strategies over evolutionary time. The same approach shows that an increasing generosity in reciprocally altruistic exchanges is also evolutionarily stable.

This analysis fails to explain altruism between strangers, however, since it predicts reciprocation only when the same individuals interact frequently. If a reputation for altruism is rewarded by the trust and generosity – the 'indirect-reciprocity' – of strangers, this may benefit the altruist in the long run. Laboratory experiments provide evidence of such a process (Fehr and Fischbacher 2003). A good reputation is communicated to others through emotional and nonverbal signals that are difficult to fake, as demonstrated by laboratory experiments in which subjects can reliably predict, after a short interaction, whether another person will co-operate or defect in a subsequent game. Although these 'commitment signals' leave the individual open to manipulation they are also precisely the characteristics sought in the kind of long-term relationships, whether romantic or commercial, that bring large rewards. Signals of commitment may have evolved for this purpose (Frank 1988).

A model combining evolutionary and cultural processes provides an alternative origin for unreciprocated altruism. In this model self-sacrifice is culturally transmitted and benefits the social group. Children adopt the commonest adult trait as their role model, a conformist strategy that is favoured by natural selection (Boyd and Richerson 1991). This model accords well with the tendency to favour individuals in one's own social group, and with ethnocentrism and xenophobia.

These evolutionary and cultural models leave open the psychological issue of what motivates an individual to behave altruistically. This question has been central to the study of human nature since classical times, philosophers disagreeing over whether egoistic or altruistic impulses are at the root of human action, and consequently over the possibilities for ethical and political obligation. Under the hedonic view all behaviour is motivated by the desire to avoid pain and secure pleasure, so that altruism is ultimately selfish. However, if all that is being claimed is that the achievement of goals is pleasurable, then hedonism might indeed explain altruism, but such an explanation misses the interesting points that the goal in this case is to help another individual, and that some cost is suffered even though goal achievement might be enjoyed. There remains the difficult question of whether altruistic acts are performed to ameliorate the suffering of others or the avoidance of the saddened mood that normally accompanies empathy for a victim. Social psychologists who have disentangled these associated motivations report conflicting results (Fultz and Cialdini 1991), although empathic individuals do tend to show more helping behaviour. In addition, people may help even when they believe they would remain anonymous if they declined to do so, demonstrating that maintaining a good reputation is not a necessary motive for altruism.

Co-operative behaviour also raises unresolved problems for rational choice theory, which predicts that behaviour is motivated by the goal of utility maximization. In social decision-making, utility depends not only on one's own choices but also on those of the other parties involved, game theory being the analytical tool for determining the rational solution. The problem for rational choice theory is that, in experiments, players generally behave more co-operatively and receive higher payoffs than rationality would predict. Psychological processes and goals other than utility maximization are therefore required to explain these results. Reputation building and commitment signalling may be a partial explanation, and may in fact lead to longer-term utility maximization. A related possibility is that players view themselves and others in the game as a single entity, a 'team', whose collective utility is the value to be maximized (Colman 2003). The idea that the welfare of others, and not just of oneself, plays a part in the motivation of co-operation is suggested by the experimental enhancement of co-operation by (sometimes quite minimal) social interaction with a stranger, in a variety of games.

A plausible evolutionary origin for these irrational departures from egoism lies in the benefit of maintaining group membership, and predicting and controlling the behaviour of others, in the small groups of early human societies (Caporael *et al.* 1989). Evolutionary psychological analysis might explain departures from rationality in terms of the kinds of social problem that early humans were selected to solve, and the kinds of reasoning it was adaptive to employ. Such an analysis has shown human reasoning to be well designed for cheater detection, for example (Cosmides and Tooby 1992).

The study of social decision-making in dyads and small, unstructured groups is a starting-point for understanding co-operation at the higher levels of structured groups, firms, institutions, communities and states (Axelrod 1997; Lazarus 2003). Many disciplines in the social sciences – psychology, anthropology, sociology, economics and political philosophy – share an interest in these questions, with trust being a recurring theme (Lazarus 2003). For example, individual decisions in economic communities governing their own use of common pool resources (CPRs), such as grazing pastures, determine how effectively individuals avoid the 'tragedy of the commons'. Successful CPR decisions involve: a clear in-group/out-group distinction; resource provision in proportion to need; sharing of costs in proportion to ability to pay; and graded punishments for the greedy (Ostrom 1990). Political theorists have debated whether individuals can make and keep group commitments without enforcement by an external agent. Findings from both real-world and experimental CPR communities show that communication and internal sanctions are successful in maintaining group commitment to the co-operative enterprise (Ostrom *et al.* 1992).

The high personal investment that individuals are prepared to make in imposing sanctions, in both real-world and experimental CPR communities, supports Frank's (1988) commitment model. The strong emotions aroused by perceived unfairness in a co-operative endeavour, and the resultant personal cost some individuals are prepared to suffer in an attempt to restore equity, demonstrate the commitment and fairness that, in turn, bring rewards in the shape of offers of partnership and commitment from others. The strength of the sense of fairness is demonstrated by the fact that experimental subjects will take nothing rather than accept a reward they feel to be unfair.

In Western societies altruistic tendencies are enhanced by the development in childhood of empathy, moral reasoning and the ability to take the perspective of others. These traits develop most readily in children whose parents are caring and supportive, set clear standards, enforce them without punishment, encourage responsibility and are themselves altruistic.

However, these mechanisms are not universal, and norms of altruistic behaviour vary between societies, being influenced, for example, by the value given to individualism or collectivism. Within small-scale egalitarian societies, altruism may be valued more highly where there is little competition for resources or where a harsh environment favours co-operation.

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SEE ALSO: evolutionary psychology; game theory

ANARCHISM

Anarchism is a political philosophy which holds that societies can and should exist without rulers. Anarchists believe that this will not, as is commonly supposed, lead to chaos – anarchy in the popular sense – but on the contrary to an increase in social order. Anarchists see the state as the decisive source of corruption and disorder in the body politic. They point to many examples where people freely co-operate, without coercion, to achieve common purposes. Among traditional societies they find much to interest them in the 'ordered anarchies' of certain African tribes such as the Nuer, as well as in the workings of autonomous peasant communities such as the Russian *mir* and the self-governing cities of medieval Europe. In modern times they have hailed the anarchist experiments of the German Anabaptists of sixteenth-century Münster; the Diggers and Fifth Monarchists of the English Civil War; the popular clubs and societies of the French Revolution; the Paris Commune of 1871; the Russian soviets of 1905 and 1917; and the anarchist ventures in Catalonia and Andalusia during the Spanish Civil War.

Christ and Buddha have been claimed among earlier anarchists; and there were many social movements in both medieval Europe and medieval China that drew a fundamentally anarchist inspiration from Christianity and Buddhism. Religious anarchism continued into modern times with Tolstoy and Gandhi. But the modern phase of anarchism proper opens with the eighteenth-century Enlightenment, and can be traced equally from Rousseau's romanticism and William Godwin's rationalism. An early exponent was Godwin's son-in-law, the poet Shelley. Later advocates included the French socialist Proudhon, the German philosopher of egoism Max Stirner, the US individualist Thoreau, and the Russian aristocratic rebels Michael Bakunin and Peter Kropotkin. Anarchism was a strong current during the Russian Revolution and its immediate aftermath; the suppression of the Kronstadt rising in 1921 and the emasculation of the soviets signalled its defeat. But the ideas lived on, to surface not only in Spain in the 1930s, but also in Hungary in 1956, and in Paris in 1968, where the student radicals achieved a dazzling blend of anarchism and surrealism.

Anarchism has been incorporated into the political philosophy of a number of ecological groups, especially in Germany and the USA. It is strongly marked in such ecological Utopias as Ursula Le Guin's *The Dispossessed* (1974) and Ernest Callenbach's *Ecotopia* (1975). These in turn have been influenced by earlier anarchist 'ecotopias' such as William Morris's *News from Nowhere* (1890) and Aldous Huxley's *Island* (1962). Anarchism is usually a left-wing philosophy; but there is also a strand of right-wing anarchism, influenced particularly by the US philosopher Robert Nozick, which has been prominent in certain libertarian movements, especially in the USA.

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SEE ALSO: libertarianism; state

ANGER, HOSTILITY AND AGGRESSION

Fear and rage were recognized by Darwin (1872) as universal characteristics of both humans and animals that evolved through a process of natural selection because these emotions facilitated successful adaptation and survival. Darwin observed that rage was reflected in facial expression (e.g. reddened face, clenched teeth, dilated nostrils), and in accelerated heart-rate, muscular tension and aggressive or violent behaviour. He regarded rage as intense anger that motivated 'animals of all kinds, and their progenitors before them, when attacked or threatened by an enemy' to fight and defend themselves. For Darwin, anger was a state of mind that differed 'from rage only in degree, and there is no marked distinction in their characteristic signs'.

Freud (1959 [1933]) considered aggression a fundamental instinctual drive that involves angry feelings which motivate aggressive behaviour. Freud conceptualized aggression as resulting from a biologically determined 'death instinct' (thanatos) that motivated people to destroy themselves. Because thanatos was generally inhibited by a more powerful life instinct (libido), the energy associated with this self-destructive drive was redirected and expressed in aggressive behaviour towards other persons or objects in the environment. However, when aggression could not be directly expressed because it was unacceptable and evoked intense anxiety, it was turned back into the self, resulting in depression and other psychosomatic manifestations (Alexander and French 1948).

Anger, hostility and aggression are recognized as important concepts in most contemporary theories of personality and psychopathology, and as important contributors to the aetiology of the psychoneuroses, depression and schizophrenia. However, angry feelings are frequently confounded with hostility and aggressive behaviour, and these terms are used interchangeably in the research literature. Consequently, definitions of these constructs remain ambiguous, leading to conceptual confusion and overlapping measurement operations of questionable validity (Biaggio *et al.* 1981).

Given the substantial overlap in prevailing definitions of anger, hostility and aggression, we have referred collectively to these constructs as the AHA! Syndrome (Spielberger *et al.* 1985), and have endeavoured to identify meaningful definitions for each concept. Anger refers to an emotional state that consists of feelings that vary in intensity from mild irritation or annoyance to intense fury or rage, with associated activation or arousal of the autonomic and neuroendocrine systems (Spielberger 1999). Hostility generally involves the experience of intense angry feelings, but also has the connotation of complex attitudes and behaviours that include being mean, vicious, vindictive and often cynical. As a psychological construct, aggression describes destructive or punitive behaviours directed towards other persons or objects in the environment.

Physiological correlates of hostility and behavioural manifestations of aggression have been investigated in numerous studies. However, until the 1980s, anger was largely neglected in psychological research. Recent research on anger, hostility and aggression, as well as observations of violence in daily life, provide strong evidence that anger-related problems are ubiquitous. In a series of studies, Deffenbacher and his associates (Deffenbacher *et al.* 1987) found that persons high in anger as a personality trait experienced angry feelings across a wide range of situations, and were more likely to engage in aggressive behaviour. Anger, hostility and aggression have also been found to contribute to the pathogenesis of hypertension (Crane 1981) and coronary heart disease (Spielberger and London 1982).

Substantial evidence that anger motivates hostility and a wide range of aggressive behaviours makes clear the need to assess both anger as an emotional state, and how frequently this emotion is experienced. The State-Trait Anger Scale (STAS) was constructed to assess the intensity of feelings of anger, and individual differences in anger proneness as a personality trait (Spielberger *et al.* 1985). In responding to the STAS S-Anger scale, examinees report their feelings of anger *at a particular time* by rating themselves on a 4-point intensity scale, e.g. 'I feel angry': (1) Not at all; (2) Somewhat; (3) Moderately so; (4) Very much so. Examinees indicate how they *generally* feel in responding to the STAS T-Anger scale by rating themselves on a 4-point frequency scale, e.g. 'I am a hotheaded person': (1) Almost never; (2) Sometimes; (3) Often; (4) Almost always.

Alpha coefficients of .93 and .87, respectively, for the preliminary STAS S-Anger and T-Anger scales administered to a large sample of university students provided impressive evidence of the utility of the working definitions of anger that guided selection of the items for these scales (Spielberger *et al.* 1985). The item-remainder correlations were .50 or higher for the final set of ten S-Anger and ten T-Anger items selected for the STAS. Factor analyses of the S-Anger items identified only a single underlying factor for both males and females, indicating that this scale measured a unitary emotional state that varied in intensity. In contrast, factor analyses of the ten STAS T-Anger items identified two independent yet substantially correlated factors, Angry Temperament (T-Anger/T) and Angry Reaction (T-Anger/R). The T-Anger/T items describe experiencing anger without specifying any provoking circumstance (e.g. 'I am a hotheaded person'; 'I have a fiery temper'). The T-Anger/R items describe reactions to situations in which anger was provoked by the negative evaluations of other persons (e.g. 'It makes me furious when I am criticized in front of others'). The results of a study in which hypertensive patients were compared with general medical and surgical patients with normal blood pressure demonstrated the importance of differences in trait anger assessed by the two T-Anger subscales (Crane 1981). The significantly higher STAS T-Anger scores that were found for the hypertensives, as compared with patients with normal blood pressure, were due entirely to their substantially higher T-Anger/R subscale scores.

The critical importance of differentiating between the *experience* and *expression* of anger has become increasingly apparent. Anger may be expressed in two ways: turned inward towards the self, or expressed in assaults or destructive behaviour. The Anger EXpression (AX) Scale was constructed to assess this dimension (Spielberger *et al.* 1985, 1995). In separate factor analyses of large samples of females and males, strikingly similar Anger-In and Anger-Out factors were identified for both sexes. Essentially zero correlations were found between the eight-item Anger-In (AX/In) and Anger-Out (AX/Out) scales based on these factors (Spielberger 1988). Relatively high internal consistency alpha coefficients were also found for the AX/In and AX/Out scales, ranging from .73 to .84 for diverse populations. Thus, the AX/In and AX/Out scales assess two distinct anger-expression dimensions that are internally consistent and empirically independent.

Several items were included in the original twenty-item AX Scale to assess the middle range of the anger-in/anger-out continuum, which were not included in the AX/In or the AX/Out scales. These items described controlling anger, rather than turning anger in or expressing anger towards other persons or environmental objects (e.g. 'I control my temper'; 'I keep my cool'). In subsequent research, the anger control items coalesced to form the nucleus of an anger control factor and stimulated the development of an eight-item Anger Control (AX/Con) scale. The eight-item AX/In, AX/Out and AX/Con scales were included in the expanded twenty-four-item AX Scale (Spielberger *et al.* 1988), which was combined with the twenty-item STAS to form the *State-Trait Anger Expression Inventory* (STAXI). An entirely new eight-item scale was subsequently added to assess how often a person tries to control anger-in (AX/Con-In) by reducing the intensity of suppressed anger (Spielberger 1999). The revised fifty-seven-item STAXI-2 also includes an expanded fifteen-item S-Anger scale, with three factorially derived subscales that assess Feeling Angry, Feel like expressing anger Verbally, and Feel like expressing anger Physically.

The STAXI has proved useful for assessing the experience, expression and control of anger in normal and abnormal individuals (Deffenbacher *et al.* 1987; Moses 1992), and for evaluating relations between the components of anger with a variety of disorders, including alcoholism, hypertension, coronary heart disease and cancer (Spielberger 1988, 1999).

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SEE ALSO: anxiety; emotion

ANNALES SCHOOL

The journal *Annales d'histoire économique et sociale*, long planned, was founded in 1929 by two historians at the University of Strasbourg, Lucien Febvre and Marc Bloch, because they were unhappy with the manner in which history was studied in France and elsewhere, and wished to offer an alternative. They considered orthodox history to be too much concerned with events, too narrowly political and too isolated from neighbouring disciplines. In their attempt to construct a 'total' history, as it came to be called (total in the sense of dealing with every human activity, not in that of trying to include every detail), Febvre and Bloch were concerned to enlist the collaboration of workers in the social sciences. They were both admirers of the work of Paul Vidal de la Blache in human geography, and interested in the ideas of Lucien Lévy-Bruhl on primitive mentality, while Bloch was also inspired by Durkheim's concern with the social and by his comparative method. The first editorial board of *Annales* included the geographer Albert Demangeon, the sociologist Maurice Halbwachs and the political scientist André Siegfried.

The movement associated with the journal can be divided into three phases. In the first phase (to about 1945), it was small, radical and subversive. After the Second World War, however, the rebels took over the historical establishment. Febvre became president of the new interdisciplinary École Pratique des Hautes Études. He continued to edit *Annales: economies, sociétés, civilisations*, as it became in 1946, thus extending its range to the 'history of mentalities' practised by Febvre in his own work on the Reformation. He was aided by Fernand Braudel, whose doctoral thesis on *The Mediterranean and the Mediterranean World in the Age of Philip II* (1949) quickly made him famous. Braudel dominated the second generation of the movement, which was most truly a 'school' with distinctive concepts and methods. Braudel himself stressed the importance of the long term (*la longue durée*) of historical geography, and of material culture (*civilisation matérielle*). Pierre Chaunu emphasized quantitative methods (*l'histoire sérielle*), notably in his vast study of trade between Spain and the New World, *Seville et l'Atlantique* (1955–66). Pierre Goubert, a former student of Bloch's, integrated the new historical demography, developed by Louis Henry, into a historical community study of the Beauvais region. Robert Mandrou remained close to Febvre and the history of mentalities.

A third phase in the history of the movement opened in 1968 (a date that seems to mark the revenge of political events on the historians who neglected them). Braudel reacted to the political crisis by deciding to take a back seat and confiding the direction of the journal to younger men, notably Emmanuel Le Roy Ladurie. Le Roy Ladurie made his reputation with *The Peasants of Languedoc* (1966), a total history from the ground up in the Braudel manner, which used quantitative methods wherever possible, but he has since moved 'from the cellar to the attic', towards the history of mentalities and historical anthropology, as in his bestselling study of a fourteenth-century village, *Montaillou* (1975). The 1980s saw a fragmentation of the former school, which has in any case been so influential in France that it has lost its distinctiveness. It is now a 'school' only for its foreign admirers and its domestic critics, who continue to reproach it for underestimating the importance of political events. Some members of the *Annales* group, notably Le Roy Ladurie and Georges Duby, a medievalist, who has moved, like Ladurie, from rural history to the history of mentalities, are presently concerned to integrate both politics and events into their approach, and to provide narrative as well as analysis.

Others, notably Jacques Le Goff, Roger Chartier and Jean Claude Schmitt, have developed a new approach to the history of culture, in a wide sense of this term, including the history of rituals, gestures and ways of reading.

Since Braudel had a quasi-filial relationship with Febvre and a quasi-paternal relationship with Ladurie, the development of the *Annales* movement into a school and its fragmentation into a loosely organized group might be interpreted in terms of the succession of three generations. It also illustrates the cyclical process by which the rebels become the establishment and are in turn rebelled against. The movement is less influential than it once was. However, the journal (renamed *Annales: histoire et sciences sociales*) and the people associated with it still offer the most sustained long-term example of fruitful interaction between historians and social sciences.

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SEE ALSO: Braudel; social history

ANTHROPOLOGY

The central issue in anthropology is human variation. In the nineteenth century, the guiding idea was that there were significant biological differences between human populations, and that these biological differences – notably in the development of the brain – explained variations in rationality, technical sophistication and social complexity. The Enlightenment belief that human history was a unified history of progress in knowledge and rationality was recast in an evolutionist idiom: there had been a steady and determined movement from more primitive to more advanced human types. Differences between populations were represented as reflecting the fact that they had achieved different levels of development. Ancient civilizations revealed by archaeology were thought to represent stages of development through which all modern societies had once progressed. There were also still some primitive human populations that closely resembled not only our own remote ancestors but also even the primate ancestors of humanity. 'Primitive' peoples – like, it was thought, the Fuegians, Australian Aboriginals and the South African Bushmen – were physically less evolved than other humans, lived in a 'primitive' society based on kinship and had a 'primitive' totemic religion. Other living populations represented intermediate stages of development between 'primitive' and 'civilized' modern peoples. In the 1880s, an alternative view became popular, which was that each human 'race' had specific inherent capacities and therefore produced more or less sophisticated cultural forms and social institutions.

A major paradigm shift occurred in the first decades of the twentieth century, which resulted in the abandonment of the 'evolutionist' approaches of the nineteenth century. In the USA, Franz Boas (1858–1942) and his students were among the pioneering critics of racial theory. They helped to establish that biological differences between extant human populations cross-cut the racial classifications; that these racial classifications were crude and unreliable, being based on a few phenotypical features; and that there were no apparent differences in intellectual capacity between populations. It was not race that caused the differences between cultures. Cultural differences were themselves the main source of human variation. Anthropologists in the Boasian mould accordingly distinguished between biological and cultural processes.

Culture was conceived as that part of the human heritage that was passed on by learning rather than by biological inheritance. There were, however, two very different views of culture. E.B. Tylor (1832–1917) and other evolutionist writers had typically treated culture or civilization as a single, cumulative attribute of humankind: some communities simply enjoyed more or less 'culture' as they advanced. The Boasian scholars were critical of these evolutionist speculations, and were more concerned with local histories and with regional distributions of cultural traits. In contradiction to the evolutionists, they insisted that cultural history did not follow any set course. A culture was formed by contacts, exchanges, population movements. Each culture was a historically and geographically specific accretion of traits. There was no necessary course of cultural development, and in consequence cultures could not be rated as more or less advanced.

In Britain, Bronislaw Malinowski (1884–1942) and A.R. Radcliffe-Brown (1881–1955) abandoned what they termed speculative reconstructions of the past and insisted rather that beliefs, customs, institutions and practices could be understood only in terms of the context of their use. Contemporary causes were sought, rather than historical origins. Inspired by the theories of Emile Durkheim (1858–1917), they situated anthropology within the social sciences, drawing particularly on sociology and social psychology.

The new schools of anthropology in Europe and North America agreed that social, cultural and biological processes were largely independent of each other. This fostered a divergence between the biological study of human beings and the study of cultural and social processes. Although Boas himself contributed to 'physical anthropology' or 'biological anthropology', this became a distinct specialism in the USA. In Europe, physical anthropology (often confusingly termed 'anthropology') developed independently of what had initially been called ethnology, the study of living populations. Some influential figures in American anthropology tried to preserve the 'four fields' approach, which linked cultural anthropology, physical anthropology, archaeology and linguistics, but increasingly the specialisms within anthropology diverged from each other. By the middle of the twentieth century the intellectual links between the four fields had become increasingly exiguous. Certainly there is some mutual influence. Archaeology has increasingly drawn on cultural and social theory, and some biological anthropologists have developed neo-Darwinian explanations of social institutions. In general, however, cultural anthropology in North America and social anthropology and ethnology in Europe can be treated in isolation from the other anthropological disciplines.

Ethnographic research

Europeans had accumulated a considerable body of information on the peoples of Asia, the Americas and Africa since the sixteenth century, but the reports were often unsystematic and unreliable. Since the eighteenth century, scholars had increasingly concerned themselves with the study of the literary and religious traditions of the East. Reliable and detailed descriptions of the peoples beyond the great centres of civilization were, however, hard to come by, and the universal historians of the Enlightenment had to rely on scattered and generally unsatisfactory sources. Even the pioneer anthropologists had to make do with decontextualized and often naïve reports of exotic customs and practices. It was only in the last decades of the nineteenth century that ethnographic expeditions began to be undertaken by professional scientists. These were typically surveys of extensive regions. Their model was the field reports of botanists and zoologists, and the ethnographies they produced typically took the form of lists of cultural traits and techniques, and included physical measurements and data on natural history. The most influential of these were often guided by questionnaires issued by metropolitan theorists, notably Lewis Henry Morgan (1818–81) and J.G. Frazer (1854–1941).

In the early twentieth century there was a shift to longer, more intensive field studies of particular, often very small, populations. Franz Boas made an extended study of the native peoples of southern, coastal British Columbia, collecting a vast archive of vernacular texts from key informants. Russian scientists made intensive studies of the Siberian peoples, and European scholars began to publish studies of small societies in the tropical colonies. Between 1915 and 1918 Bronislaw Malinowski engaged in a field study of the Trobriand Islands in Melanesia that introduced a new approach to ethnographic research. He spent 2 years in the field, working in the Trobriand language, and systematically recorded not only rules, values and ceremonies but also the daily practices of social life. Influenced by the sociology of Durkheim, he conceived of the Trobrianders as constituting a social system with institutions that sustained each other and served to meet a series of basic needs. But he did not provide a merely idealized account of the social order, insisting rather that even in small-scale and homogeneous communities social practices often diverged from the rules, and that individuals engaged in rational, strategic behaviour to maximize personal advantage.

Malinowski's method of fieldwork, which came to be termed 'participant observation', eventually became the standard mode of ethnographic research. In particular, the British school of social anthropology exploited the potential of this method and produced a series of classic ethnographies that may prove to be the most enduring achievement of twentieth-century social and cultural anthropology. (See e.g. Firth 1936; Evans-Pritchard 1937; Malinowski 1922, 1935; Turner 1957.) Soon large regions of Africa, Indonesia, Melanesia and the Amazon had been documented in a set of interlinked ethnographic studies that provided a basis for intensive regional comparison.

The ethnographies produced between about 1920 and 1970 were typically holistic in conception. The guiding notion was that the institutions of the society under study formed an integrated and self-regulating system. As a heuristic device this was undoubtedly fruitful, since it directed attention to the links between different domains of social and cultural life, and resulted in rounded accounts of communities. However, this perspective tended to exclude history and social change. It also tended to neglect social and cultural processes that crossed borders, and it was not adapted to the investigation of the effects of the colonial institutions that impinged on local social life. From the 1960s, ethnographers increasingly began to develop historical perspectives, drawing on oral traditions as well as archival sources, particularly as more studies were undertaken in peasant societies in Europe and the Near and Far East. Sociologists had begun to undertake 'ethnographic' studies of urban populations on Malinowski's model in the 1930s, but it was not until the 1970s that social and cultural anthropologists began to do field studies on a regular basis in the cities, suburbs, factories and bureaucracies of Western societies.

Comparison and explanation

Ethnography was perhaps the most successful enterprise of social and cultural anthropology, but what was the purpose of piling up meticulous ethnographies that dealt mainly with small and remote communities? There were four possible responses to this challenge. (1) The first, historically, was the evolutionist notion that living so-called primitive peoples would provide insights into the ways of life of our own ancestors. (2) Some anthropologists believed that the evidence provided by comparative ethnography would permit the definition of the elements of a universal human nature. (3) Drawing on the social sciences (particularly after 1920), many anthropologists argued that ethnographic research and comparison would permit the development of genuinely universal social sciences, which embraced all the peoples of the world. (Virtually all research in the other social sciences was devoted to the study of modern Western societies.) (4) Humanists, often sceptical about generalizations concerning human behaviour, and critical of the positivist tradition, argued that the understanding of strange ways of life was valuable in itself. It would extend our appreciation of what it means to be human, inculcate a salutary sense of the relativity of values and extend our sympathies.

(1) The evolutionist faith was that the social and cultural history of humankind could be arranged in a series of fixed stages, through which populations progressed at different speeds. This central idea was badly shaken by the critiques of the Boasians and other scholars in the early twentieth century, but it persisted in some schools of archaeology and was sustained by Marxist writers. There have been attempts to revive a generalized evolutionist history in a more sophisticated form (e.g. Gellner 1988). There have also been detailed studies of type cases designed to illuminate evolutionary processes. Richard Lee (1979) undertook a detailed account of !Kung Bushman economic life, for example, with the explicit aim of seeking clues to the way of life of Upper Palaeolithic foraging populations. His study revealed that the !Kung could sustain a viable way of life using simply technologies in a marginal environment, and the details of !Kung social and economic organization were widely referred to as a paradigmatic example of hunter-gatherer life now and in the distant past (Lee and DeVore 1968). An influential critique has argued that on the contrary the !Kung are to be understood in terms of their particular modern history. They are the heirs of centuries of contact with Bantu-speaking pastoralists and with European colonists, and their way of life represents a defensive adaptation to exploitation (Wilmsen 1989). Others argued that the culture of the !Kung could best be understood as a local example of a specific cultural tradition, shared by pastoralist Khoisan peoples as well as other Kalahari Bushmen groups. These critiques are reminiscent of the Boasian critiques of the evolutionist theories of their day.

A related tradition, sometimes termed neo-evolutionist, was concerned rather with human universals, and with the relationships between human capacities and forms of behaviour and those of other primates. In the1970s and 1980s, the sociobiological movement gave a fresh impetus to this project, combining the ethological emphasis on human nature with a theory of selection: institutions (such as the incest taboo) could be explained in terms of their evolutionary payoff. In the 1990s, genetic determinism became fashionable. Social and cultural anthropologists were in general more impressed with the variability of customs and the speed with which cultures could change, and objected to the downplaying of cultural variation that neo-evolutionist research programmes seemed to require (Sahlins 1976).

(2) An alternative approach to human universals was offered by the structuralism of Claude Lévi-Strauss, who argued that common intellectual processes – determined by the structure of the human mind – underlay all cultural productions (see e.g. Lévi-Strauss 1963, 1977). Lévi-Strauss was inspired by structural linguistics, but more recent approaches to the study of human cognitive universals in anthropology draw rather on cognitive studies (Sperber 1996, 2000).

(3) Social science approaches were dominant in social and cultural anthropology for much of the twentieth century. In Europe, the term social anthropology became current, reflecting the influence of the Durkheimian tradition of sociology. Ethnographic studies were typically written up in a 'functionalist' framework, which brought out the interconnections between institutions in a particular society. Attempts were also made to develop typologies of societies, religions, kinship and political systems, etc. (e.g. Fortes and Evans-Pritchard 1940). In the USA, G.P. Murdock produced a cross-cultural database to permit the testing of hypotheses about the relationships between particular variables, such as family form and economy, or between the initiation of young men and the practice of warfare, and so on (Murdock 1949). Since the mid-1980s, individualist sociologies have become more popular, but the structuralist tradition also persists. In the USA, the influence of psychology was more marked. A specialism developed that attempted to apply psychological theories in non-Western settings. Initially the main interest was in socialization, but recently there has been more emphasis upon the study of cognition (D'Andrade 1995). There is also a long and still vital tradition of regional comparison, which takes account of historical relationships and seeks to characterize local structural continuities, and more ambitious programmes of cross-cultural comparison are also being revived (Gingrich and Fox 2002).

(4) Boas and his students tended to emphasize the variety of local cultural traditions and the accidental course of their development. Some of his most creative associates, notably Edward Sapir, came to see cultural anthropology as one of the humanities, and this view characterized much of US cultural anthropology in the last decades of the twentieth century. Its leading

exponent is Clifford Geertz, who argued generally that 'interpretation' rather than 'explanation' should be the guiding aim of cultural anthropology (Geertz 1973). Anthropologists of this persuasion are sceptical about social science approaches, harbour a suspicion of typologies and reject what they describe as 'reductionist' biological theories. From the mid-1970s, post-structuralist movements in linguistics, hermeneutics and literary theory made converts. Claims for the superiority of a Western rationalist or scientific view of the world were treated with grave suspicion, and the ethnographer was urged to adopt a critical and reflexive stance (see Clifford and Marcus 1986).

Recent developments

The broad field of anthropology is sustained by its ambition to describe the full range of human variation. The ethnographic record provides a rich documentation of the social and cultural variety of human thought and institutions. Archaeology traces the full sweep of the history of the species. Biological anthropology studies human evolution and biological variation.

The uses to which these empirical investigations are put are many and diverse. Evolutionist approaches attempt to find common themes in the history of the species, or to define a common human nature, or to relate human behaviour to that of other primates. Social and psychological anthropologists engage in a dialogue with contemporary social science. They confront the models current in the social sciences with the experiences and models of people all over the world, living in very diverse circumstances. Finally, a humanist tradition aspires to provide phenomenological insights into the lived experience of other peoples.

Once criticized as the handmaiden of colonialism, anthropology is increasingly a truly international enterprise, with major centres in Brazil, Mexico, India and South Africa, where specialists concern themselves mainly with the study of the peoples of their own countries. In Europe and North America, too, there is a lively movement that applies the methods and insights of social and cultural anthropology to the description and analysis of the Western societies that were initially excluded from ethnographic investigation.

Applied anthropology developed in the 1920s, and was initially conceived of as an aid to colonial administration. With the end of the European colonial empires, many anthropologists were drawn into the new field of development studies. Others began to apply anthropological insights to problems of ethnic relations, migration, education and medicine in their own societies. As local communities of anthropologists were established in formerly colonial societies, they too began more and more to concern themselves with the application of anthropology to the urgent problems of health, demography, migration and economic development. Medical anthropology is today probably the largest speciality within social and cultural anthropology, and a majority of US Ph.D.s in anthropology are now employed outside the academy.

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SEE ALSO: cultural anthropology; economic anthropology; political anthropology; psychological anthropology; social anthropology

ANXIETY

Anxiety states are generally defined as unpleasant emotional reactions to anticipated injury or harm from some external danger. Charles Darwin (1872) argued that they were the product of evolution in both humans and animals, and observed that fear and anxiety vary in intensity, from mild apprehension or surprise, to an extreme 'agony of terror'. Freud regarded fear as 'objective anxiety'. The intensity of the emotional reaction was proportional to the magnitude of an external danger: the greater the external danger, the stronger the perceived threat, the more intense the resulting anxiety reaction. Freud also emphasized the experiential (phenomenological) qualities of anxiety, which he defined as 'something felt', an unpleasant emotional state characterized by subjective feelings of chronic apprehension, and by 'all that is covered by the word "nervousness"' (1924 [1895]: 79). According to Freud, the perception of danger evoked an anxiety state that served to warn the individual that some form of adjustment was necessary.

In contemporary psychiatry and psychology, anxiety refers to at least two related, yet logically different, constructs. Anxiety is most commonly used to describe an unpleasant emotional state (S-Anxiety). It may also refer to the disposition to experience anxiety as a personality trait in relatively stable individual differences (T-Anxiety). Persons high in T-Anxiety tend to see the world as a more dangerous or threatening place than is the case for most other people. They are therefore more vulnerable to stress. Consequently, they experience S-Anxiety more frequently and often with greater intensity than persons who are low in T-Anxiety.

Anxiety states can be distinguished from other unpleasant emotions, such as anger or depression, by their unique combination of experiential and physiological manifestations. An anxiety state is characterized by subjective feelings of tension, apprehension, nervousness and worry, and by activation (arousal) and discharge of the autonomic nervous system. Tension, apprehension and nervousness accompany moderate levels of anxiety. Intense feelings of fear, fright and panic are indicative of very high levels of anxiety. The physiological changes that occur in anxiety states include increased heart rate (palpitations, tachycardia), sweating, muscular tension, irregularities in breathing (hyperventilation), dilation of the pupils, dryness of the mouth, vertigo (dizziness), nausea and muscular skeletal disturbances, such as tremors and tics. Individuals who experience anxiety are generally aware of their subjective feelings, and can report the intensity and duration of these unpleasant emotional reactions.

The intensity and duration of an anxiety state will be proportional to the amount of threat that a particular situation poses for an individual, given her or his interpretation of the situation as personally dangerous. The appraisal of a particular situation as threatening will be influenced by the person's skills, abilities and past experience. The arousal of anxiety generally involves a temporally ordered sequence of events, which may be initiated by stressful external stimuli (stressors) or by internal cues that are interpreted as dangerous or threatening. Stressors are defined as situations or stimuli that are objectively characterized by some degree of physical or psychological danger. Threat denotes an individual's subjective appraisal of a situation as potentially dangerous or harmful. Appraisals of danger or threat evoke S-Anxiety, the emotional state that is at the core of the anxiety process.

Stressful situations that are frequently encountered may lead to the development of effective coping responses that quickly eliminate or minimize the danger. However, if a situation is perceived as dangerous or threatening and the individual is unable to cope with the stressor, he or she may resort to intrapsychic manœuvres (psychological defences) to eliminate or reduce the intensity of the resulting anxiety state. Psychological defence mechanisms may also modify, distort or render unconscious the feelings, thoughts and memories that would otherwise provoke S-Anxiety. To the extent that a defence mechanism is successful, the circumstances that evoke anxiety will be perceived as less threatening, and there will be a corresponding reduction in the intensity of the S-Anxiety reaction. However, defence mechanisms are generally inefficient and often maladaptive because the underlying problems that caused the anxiety remain unaltered.

While everyone experiences anxiety states from time to time, there are substantial interpersonal differences in the frequency and the intensity with which these states occur. So if we are told, 'Ms Smith is anxious', this may mean that she is anxious *now, at this very moment*, or that she *frequently* experiences anxiety. If Ms Smith is anxious right now, she is experiencing S-Anxiety as an unpleasant emotional state. If she experiences anxiety states more often than others, she is high in T-Anxiety, and may be classified as 'an anxious person'. Even though Ms Smith may be an *anxious person*, whether or not she is *anxious now* will depend on how she interprets her present circumstances.

Psychologists have identified two important classes of stressors that evoke anxiety states in people who differ in trait anxiety. Persons high in T-Anxiety are more concerned about being evaluated by others because they lack confidence in themselves and are low in self-esteem. Situations that involve psychological threats, i.e. threats to self-esteem, particularly ego-threats when personal adequacy is evaluated, are generally more threatening for persons who are high in T-Anxiety. Individuals very high in trait anxiety, e.g. psychoneurotics or patients suffering from depression, frequently experience high levels of S-Anxiety. In contrast, persons high or low in T-Anxiety generally experience comparable increases in S-Anxiety when responding to situations involving physical danger, such as imminent surgery. Prior to 1950, there were no well-established measures of anxiety, and relatively few experimental studies of anxiety in humans (May 1950), in part because there were ethical problems associated with inducing anxiety in laboratory studies. The Taylor Manifest Anxiety Scale (TMAS) (1953) was the first widely used psychometric instrument designed to assess anxiety in adults. The fifty items comprising the TMAS were selected from the Minnesota Multiphasic Personality Inventory (Hathaway and McKinley 1951) on the basis of a textbook description of the symptoms observed in patients suffering from anxiety neurosis (Cameron 1947), a clinical syndrome first identified by Freud (1924 [1895]). Respondents to the TMAS report whether or not each item describes how they generally feel.

Over the past 40 years, Cattell's (1966) Anxiety Scale Questionnaire (ASQ) and the State-Trait Anxiety Inventory (STAI: Spielberger 1983; Spielberger *et al.* 1970) have also been widely used to assess anxiety in research and clinical practice. Cattell (1966) pioneered the use of multivariate techniques in the assessment of anxiety, and was the first to identify trait and state anxiety as unique constructs. The forty-item ASQ, which is highly correlated with the TMAS, provides an objective measure of individual differences in trait anxiety.

The concepts of state and trait anxiety, as refined and elaborated by Spielberger (1972, 1983), provided the conceptual framework for constructing the STAI, which was intended to provide reliable, relatively brief, self-report scales for assessing state and trait anxiety in research and clinical practice (Spielberger *et al.* 1970). In developing the STAI, the initial goal was to identify a single set of items that could be administered with different instructions to assess the intensity of S-Anxiety and individual differences in T-Anxiety. However, subsequent research indicated that altering the instructions could not overcome the strong state or trait psycholinguistic connotations of the key words in a number of items (Spielberger *et al.* 1970).

Given the difficulties encountered in measuring state and trait anxiety using the same items, the best items for assessing S-Anxiety and T-Anxiety respectively were selected for the STAI (Form X). When given with trait instructions, the twenty items with the best concurrent validity, as indicated by the highest correlations with the TMAS and the ASQ, and that were stable over time, were selected for the T-Anxiety scale (Spielberger *et al.* 1970). The twenty items with the best construct validity when given with state instructions, as indicated by higher or lower scores under stressful and non-stressful conditions, were selected for the S-Anxiety Scale. Factor analyses of the STAI(-Form Y) have consistently identified distinct state and trait anxiety factors (Spielberger 1983). Since the STAI was first published more than 30 years ago (Spielberger *et al.* 1970), this inventory has been translated and adapted in sixty-two languages and dialects, and cited in more than 14,000 archival studies.

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SEE ALSO: anger, hostility and aggression; emotion

ARISTOTLE (384–322 BCE)

Aristotle (Aristotelês) was born in 384 BCE at Stageira (also spelled Stageiros), in the Chalcidic peninsula of northern mainland Greece. His father was physician to King Amyntas III of Macedon, a kingdom that was at first merely adjacent to Chalcidice but by the time of Aristotle's death had swallowed it up and physically destroyed Stageira itself (348, later rebuilt). In 367 he joined Plato's Academy of scholars and intellectuals in Athens, leaving it only in 347 on the founder's death. After sojourns in Macedon (where he was hired by Amyntas's son Philip II to instruct his son and heir Alexander, later Alexander III the Great) and northwest Anatolia (where he married the ward of a local absolute ruler, another former pupil of Plato), and travels in the eastern Mediterranean (where he encountered Theophrastus, who was to succeed him as head of his own school), he returned to Athens in the mid-330s to found the institute for advanced study known as the Lyceum after its location within a grove devoted to Wolfish Apollo. Anti-Macedonian reaction in 323, following the death of Alexander at Babylon, compelled him to leave Athens once more, and he died in 322 at Chalcis on the neighbouring island of Euboea, thereby helping to prevent the Athenians from sinning against philosophy a second time (the first being the death sentence against Socrates in 399).

Some 500 titles of works were attributed in antiquity to Aristotle, whose extraordinary personal library passed eventually into the famous Library built at Alexandria in the early third century BCE. But only some thirty works actually survive, all composed for 'esoteric' consumption within the Lyceum rather than for 'exoteric' use, and some have been preserved solely through Arabic translations done in Baghdad or Moorish Spain.Their inelegant, jerky style probably faithfully reflects both their origin in lecture notes and Aristotle's determinedly down-to-earth manner (the fresco by Raphael known as *The School of Athens* depicts him with his hand pointing down towards the earth, in contrast to Plato next to him who points upwards to heaven). Aristotle was primarily a scientist, as that term would then have been understood, with major interests in biology and zoology, and a preoccupation with minute empirical observation and taxonomy. The generic term for his intellectual activity was *historia*, 'enquiry'.

In his social scientific writings on ethics and politics he adopted the method of beginning from the *phainomena* (that which seemed to be the case) of the sublunary perceptible world and from the *endoxa* (the reputable opinions of reputable people of intelligence and perception) entertained about it, but only so as then to go on from and beyond them in the direction of ever greater analytic precision and philosophical, including logical, refinement. He was indeed the founder of a systematic logic, which eliminated many of the sophistical puzzles that had perplexed earlier thinkers, and he extended the idea of mathematical proof to other areas of philosophical and scientific thought. He was especially concerned to clarify and systematize the principles of argument that had been worked out piecemeal and empirically in law courts and assembly debates, and in written as well as oral disputes between medical and other scientific or would-be scientific practitioners.

His early master, Plato, had believed that the visible world was merely an imperfect reflection of a reality that could be apprehended only intellectually, by a very select few. Aristotle claimed not to understand the relation between Plato's Forms and the ordinary real world of change and sense-data, and, perhaps influenced by his father's medical background, took the robustly practical view that it was the duty of the philosopher to reason out the right way for humankind in society and then to persuade rather than impose on his fellow-citizens. In his *Politics* ('Matters concerning the *polis* state-form') Aristotle's primary emphasis was characteristically not on the construction of an absolutely ideal polity so much as the improvement of existing real polities in line with precepts of demonstrable or plausibly predictable practicality.

In Aristotle's day the importance of private, in contradistinction to public, civic life was growing, partly as the scope for independent political action diminished in an era increasingly dominated by large territorial states. This to some extent explains Aristotle's preoccupation with friendship, apparent in all three of his Ethical writings, especially the *Nicomachean Ethics*; though one kind of friendship he analysed was precisely a political kind, and the *polis* or citizen-state was never far from the centre of his preoccupations. Indeed, in light of the supersession of the *polis* as a power-unit his preoccupation with it can be seen to be somewhat reactionary. On the one hand, he commented – perhaps with one wary eye to his former pupil Alexander – that, if the Greeks could achieve a single political framework of self-governance, a common *politeia*, they would rule the world. On the other hand, man as a species being was defined by him precisely as a living creature designed by its nature to achieve it full actualization within and only within the framework of the individual, small-scale *polis*. That is the full meaning of his often traduced definition of the human being as a *politikon zöon*, a 'political animal'. He and his pupils researched and wrote up the 'constitutions' of more than 150 contemporary polities, most of them Greek *poleis*.

The second major source of tensions in Aristotle's life, between opposing epistemologies, was perhaps even more fruitful than that between different constructions of the political. He firmly asserted both the practical utility and the intellectual satisfactions of studying even the apparently lowest forms of animal life and of engaging in dissection (though not of living organisms, nor of human corpses). He extended the methods of research developed in medicine to the whole field of biology. He reflected systematically on logic and processes of reasoning, both human and – by analogy – animal. The characteristics that humans shared with animals, for example a kind of courage, became a basis for understanding, and that intellectual transformation had particularly far-reaching implications for psychology.

Being a prophet of things as they are inevitably meant embracing, and indeed seeking to justify philosophically, current Greek conceptions of the nature and status of women and the necessity of unfreedom for many, especially non-Greeks. Hence were derived Aristotle's rebarbative view that women (all women, including Greek) were biologically deformed, that is incomplete, males, and sociobiologically speaking the second sex, since their reasoning capacity was inauthoritative. Hence, too, his lame and retrogressive defence of a 'natural' form of slavery, in cases where the enslaved lacked by nature – and so irreparably – the reasoning capacity altogether and had to have it supplied for them by a master or mistress. Since such natural slaves were by definition non-Greeks, the natural slave doctrine could connote racism as well as extreme illiberalism. Aristotle also believed that money-making for its own sake was morally wrong, which led him to misprise the economic developments of his own day, though he made a better shot at properly economic analysis of pre-capitalist wages, prices and profit than any of his predecessors.

Within these limits, however, Aristotle has often been an inspiration to those who wish for a more fully participatory form of political engagement, and heed the call for a return to the Greeks' view of politics as the life and soul of the good citizen's endeavours. He was a shrewd observer of human social behaviour and accepted that social conflict was inevitable as long as there were economic differences between rich and poor of a kind that would later be analysed as due to and expressive of socioeconomic 'class'. The best way to achieve a due measure of social stability, he believed, was for there to be a sufficiently large intermediate class of middling citizens who would hold the political balance between the two extreme groups, a theory that certainly applied with force to the society of Athens within which he chose to spend the majority of his adult life as an unenfranchised resident alien. Firmly rejecting the Socratic-Platonic view that virtue is knowledge, since he was aware that people often fail to do what they know they should, he argued instead that virtue was an activity of soul lying in the mean between excess and defect – a sophisticated philosophical version of the maxim inscribed on the contemporary temple of Apollo at Delphi, 'Nothing in Excess' (*mêden agan*).

From one standpoint – one that Aristotle himself would not have rejected outright – Aristotle seems to be an intellectual consolidator, a synthesizer and sytematizer of ideas originally formulated by others rather than a minter of brand new theory. On the other hand, Aristotle opened up new fields of *historia*, made lasting contributions to methodology and technical-scientific vocabulary, and proposed critical readings and intelligent solutions of longstanding philosophical dilemmas. For those achievements, unparalleled in his own day and rarely attained since, the Stagirite fully deserves Karl Marx's accolade of 'giant thinker'.

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ART, SOCIOLOGY OF

The term 'sociology of art' has been widely supplanted by the more inclusive term 'sociology of the arts'. This growing area of specialization is concerned with the visual arts, literature, music, drama, film, crafts and other art forms, which it treats from various sociological perspectives. Research focuses on processes like artistic production (or creation), mediation and the reception (or consumption), as well as the characteristics of people, networks and organizations involved with these processes.

While no single theoretical framework dominates the field, several approaches have particularly marked the sociology of the arts over the past half-century, among them Marxist and neo-Marxist approaches; symbolic interactionism; neo-structuralism and the so-called 'production of culture approach'.

The Marxist legacy in theories of the arts and society

Is art outside of society? Does art 'reflect' society? Can the arts shape social values and practices? Sociologists direct their attention to the social processes and political institutions, ideologies and other factors that situate art, and influence artists (Zolberg 1990). Seminal early work by Marxist sociologists like Theodor Adorno, Antonio Gramsci and Lucien Goldmann continues to fuel discussion about the place of class-based taste and aesthetic practices in processes of domination and resistance in society.

For example, Adorno suggested that the culture industries promoted art forms that induce passivity (such as styles of popular music), whereas avant-garde art forms stimulate critical thinking and resist commercialization. Others contend that art catering to 'low-brow' tastes and working-class values has creatively and effectively challenged hegemonic authority.

Marxist approaches to art, popular in many other parts of the world since the 1960s, had less influence in English-speaking America. Critics claimed that reflection theory – the notion that art reflects societal values and practices – is overly reductive. Another complaint was that critical theorists failed to take into account the specificity of aesthetic content and values, and seldom put their theoretical claims to empirical test. Nevertheless, some writers creatively combined Marxist aesthetics with insights drawn from psychology and semiotics (Luhmann 2000 [1995]). Questions of 'content' were addressed by examining art works as 'texts' or 'codes'. Other sociologists have studied the social conventions associated with the arts, considering, for example, the expectations of different types of readers and their effect upon the reception of literary works and films. And Marxist ideas infiltrated other perspectives. For example, contemporary work on the place of aesthetic experiences and conduct in cognition and agency draws on Adorno's complex oeuvre (Tia DeNora 2003; Witkin 2002).

The social organization of art worlds

Sociologists of the arts have devoted much attention to the social processes and institutions that structure artistic creation, mediation and reception. Drawing on symbolic interactionism, Howard Becker proposed a framework for understanding the social organization of the arts as networks of 'art worlds' (Becker 1982, http://home.earthlink.net/hsbecker/), showing how participants in elite and in popular art worlds develop creative relationships through conventions, consensus and collaboration. He associates different forms of social interaction with specific art forms, and analyses various categories of participants, some with roles that fall outside the occupational categories normally associated with the arts. In his discussion of filmmaking, for example, he considers camera equipment manufacturers, electrical technicians, scriptwriters, camera operators, actors, directors and producers. He also proposed a typology of artists, distinguishing integrated professionals (who work within the conventions of their art world); mavericks (who know the rules of the game but choose not to follow them); folk artists (who work in artistic genres with different goals); and naïve artists (who generally work outside of aesthetic conventions).

Studies of outsider art, non-Western artistic traditions, and the efforts by non-Western artists to engage with avant-garde aesthetic movements suggest that contemporary practices are diversifying (Oguibe and Enwezor 1999; Zolberg and Cherbo 1997). However, funding opportunities and major institutions with connections to international art markets remain highly centralized in most artistic fields. Work in the arts has long been marked by rapidly changing tastes, strong seasonal variations, irregular remuneration and reliance on alternative part-time employment, features emphasised in studies of artistic labour markets and contemporary career strategies (Menger 2003).

Studies of the social organization of the arts are not only concerned with direct participants in artistic creation. Organizational structures also shape (and are influenced by) social boundaries that are important for understanding mediation and reception. Critics, gallery owners and impresarios may function as gatekeepers, participating in the processes that define and legitimate cultural practices related to the arts (Balfe 1993; Shrum 1996). Fans, connoisseurs and various types of patrons have played crucial roles in structuring both popular and high-culture art forms.

The high-culture model

Organizational structures of arts institutions and patterns of patronage are intimately connected to status distinctions. For example, beginning with successful initiatives in classical music and the visual arts, elite forms of organization that relied on not-for-profit models were extended to embrace theatre, opera and dance in the USA. This movement promoted institutional change and fostered new elites (DiMaggio 1991). Elite arts participation and philanthropy have also sometimes responded to the need to balance prestige with diversity and accessibility (Ostrower 2002).

The association of 'high culture' with elite tastes and education has attracted the attention of researchers who are concerned with the persistence of social inequalities. In his studies of the social production (and reproduction) of culture, Pierre Bourdieu developed core notions that are now used by many sociologists of the arts (sometimes rather indiscriminately), among them cultural capital, *habitus* and the value of symbolic goods (Bourdieu 1993).

The production of culture perspective, and new approaches

Richard Peterson introduced the 'production of culture' perspective in the 1970s, arguing that the symbolic content of culture (and of specific art forms) is shaped by the context in which it is produced and disseminated. For example, the interaction of music promoters, music makers and their fans was crucial for the invention of the conventions and stylistic features that came to define country music as a genre (Peterson 1997). This approach has influenced research on the arts, media and informally produced culture (Alexander 2003; Dowd 2002).

New approaches combine the 'production of culture' perspective with ideas drawn from other current sociological frameworks, including post-colonialism, neo-institutionalism and actor-network theory (Hennion 2001). Nathalie Heinich has produced an influential body of work that cuts across disciplinary boundaries, beginning with monographs about how artists and art works have gained recognition, historically and in contemporary society (Heinich 1998). She proposed that contemporary artists attain notoriety through a three-fold game of transgression (by the artist), rejection (by uninitiated publics) and the eventual integration of new values. In this process the onus is on the artist to express singularity in ways that are recognizable to art world insiders. Studies of censorship controversies and cases of vandalism and iconoclasm provide insights into social values and expectations of different cultural groups (Gamboni 1997; Marcus 1998). Studies of participation in the arts, the development of tastes and the cultural heritage movement have drawn attention to identity issues, agency and collective memory (Griswold 2000; Halle 1993; Tota 2002). Developments in other fields have penetrated the sociology of the arts, and public interest has been stimulated by commentators and policy-makers who recognize the contribution made by the arts to well-being and economic vitality in contemporary society (Florida 2002).

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SEE ALSO: mass media; popular culture

ARTIFICIAL INTELLIGENCE

Research in artificial intelligence (AI) represents an attempt to understand intelligent behaviour (and its prerequisites: perception, language use and the mental representation of information) by making computers reproduce it. It has historical precedents in the work of Pascal, Leibniz and Babbage, who all devised schemes for intelligent machines that were impractical, given the mechanical components from which it was envisaged that those machines would be constructed. The existence of AI as an independent discipline, however, can be traced to the invention of the digital computer, and, more specifically, to a conference at Dartford College, New Hampshire, in 1956. At that conference, Allen Newell, Cliff Shaw and Herbert Simon (see e.g. 1957) described the use of heuristic, rule of thumb, procedures for solving problems, and showed how those procedures could be encoded as computer programs. Their work contrasted sharply with immediately preceding attempts to explain intelligent behaviour by modelling the properties of brain cells.

Newell *et al.*'s work led to the development of more sophisticated programming languages (in particular John McCarthy's LISP), and their general approach, dubbed *semantic information processing* by Marvin Minsky, was applied to fields as diverse as visual object recognition, language understanding and chess playing. The advent of larger, faster computers forced AI researchers to confront the problem of whether their programs would scale up so that they could operate in the real world, rather than on small-scale laboratory tasks. Could a program that conversed about wooden blocks on a table top be generalized so that it could talk about poverty in the developing world, for example?

Often the answer was: no. Tricks that worked in a limited range of cases would fail on other cases from the same domain. For example, ideas used in early object recognition programs were later shown to be restricted to objects with flat surfaces. Many aspects of intelligence came, therefore, to be seen as the exercise of domain-specific knowledge, which had to be encoded in detail into computer programs, and separately for each subdomain. This conception of intelligence led to the construction of *expert systems*. DENDRAL (see Lindsay *et al.* 1980), which computed the structure of complex organic molecules, and MYCIN (see Shortliffe 1976), which diagnosed serious bacterial infections, were the first such systems, and they remain among the best known. Expert systems have become commercially important, usually in the guise of sophisticated *aides-mémoires* for human experts, rather than as replacements for them. One of their principal strengths is their ability to process probabilistic information, which contributes to many kinds of diagnosis. In recent years attention has focused on discovering the detailed formal properties of such systems.

A different attack on the semantic information processing research of the 1960s came from David Marr (see, in particular, 1982). Marr argued that AI researchers had failed to provide a *computational theory* of the tasks their machines were trying to carry out. By a computational theory he meant an account of what outputs those machines were trying to produce from their inputs, and why. Marr wanted to combine evidence from neurophysiology and perceptual psychology with computational techniques from AI, and other parts of computer science, to produce a detailed and explanatory account of human vision. Although he did not wholly succeed before his untimely death in his mid-thirties, his work on the lower levels of the human visual system remains the paradigmatic example of successful research in cognitive science.

Marr's computational models contained units that were intended to mimic the properties of cells in the visual system. He, therefore, reintroduced techniques that had been sidelined by Newell *et al.*'s information processing approach. *Connectionism* is a more direct descendant of the earlier neural modelling approach. However, the units from which connectionist models are built are not based on specific classes of nerve cells, as those in Marr's models are.

Marr questioned whether traditional AI could generate *explanations* of intelligent behaviour, and connectionists asked whether it could model *biological*, and in particular human, intelligence. Not surprisingly, therefore, many AI researchers in the 1980s embraced the engineering side of the discipline, and focused their attention on its applications. This orientation was also sensible at a time when funding was more readily available for projects with short- to intermediate-term returns. Ideas from AI, albeit not always in a pure form, found their way into commercial expert systems, learning aids, robots, machine vision and image processing systems, and speech and language technology. Indeed, techniques that have their origin in AI are now widespread in many types of software development, particularly of programs that run on personal computers. Object-oriented programming was first introduced in the AI language SMALLTALK. It is now a staple of programming in languages such as C++, one of the standards for writing Windows applications.

Learning posed another problem for traditional AI. The semantic information processing approach assumed that the analysis of an ability, such as chess playing, should be at an abstract level, independent of the underlying hardware – person or machine – and independent of how the hardware came to have the ability, by learning or by being programmed. The ability to learn is itself an ability that might be modelled in an AI program, and some AI programs were indeed programs that learned. However, a vague unease that learning was not receiving the attention it deserved fostered the feeling, in some quarters, that machines could never be really intelligent unless they could learn for themselves. Furthermore, the kinds of learning modelled in AI programs were limited. For example, concept learning programs were capable only of making slightly more complex concepts out of simpler ones that were programmed into them. For some kinds of *machine induction* this kind of learning is satisfactory, and it can produce impressive results on large machines. However, it leaves questions about the limitations of such methods of learning unanswered.

Connectionism, with its techniques of pattern abstraction and generalization, has been seen by many as at least a partial solution to the problems about learning that beset traditional AI. A different approach is based on the analogy between evolution and learning, and on the idea that many types of intelligent behaviour are the product of evolution, rather than of learning in individual animals. *Genetic algorithms* were originally invented in John Holland (see 1992) who showed, perhaps surprisingly, that computer programs can be evolved by a method that parallels evolution by natural selection. The programs are broken into pieces that can be recombined according to fixed rules (as bits of genetic material are recombined in sexual reproduction). The new programs then attempt to perform the to-be-learned task, and the ones that work best are selected to enter the next round, and to leave offspring of their own. As in evolution, this process must be iterated many times if order is to emerge, in the form of a program that can carry out the required task. The use of genetic algorithms is important in the discipline of artificial life, which is broader in scope and more controversial than AI. Research in artificial life tries to create robots that behave intelligently in something approaching a natural environment. It also attempts to model social and other contextual influences on such behaviour, such as the factors that influence how flocks of birds behave. In artificial life it is typically assumed that intelligence does not lie in an individual organism, or even a group of organisms but in a broader system that includes the environment – the notion of *situated cognition*.

Many of the controversies that surround artificial life are philosophical ones, and they often parallel those generated by AI research. Two main questions have been prompted by work in AI. First, can machines really exhibit intelligence, or can they only simulate it in the way that meteorological computers simulate weather systems? Second, if there were intelligent machines, what moral issues would their existence raise? Potentially, intelligent machines are different from weather-predicting computers, since those computers do not produce rain, whereas robots could act intelligently in the real world. The moral question, like all moral questions raised by scientific advances, must be addressed by society and not specifically by AI researchers.

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SEE ALSO: computer simulation; connectionism; mind; problem-solving

ASYMMETRIC INFORMATION

Asymmetric information, as the adjective indicates, refers to situations in which an agent engaged in a transaction possesses information that is not available to other agents involved in the same transaction. This rather self-evident premise has nevertheless revolutionized modern economic thought since the 1970s. Take, for example, two major results in the economics and finance literature, the *first fundamental theorem of welfare economics* and the *Modigliani–Miller theorem*.

The first welfare theorem states that in a competitive economy with no externalities, prices would adjust so that the allocation of resources would be *optimal* in the Pareto sense (an environment is *competitive* when the action of any one single agent does not affect prices; there is an *externality* in the economy when the action of one single agent directly affects the welfare of other agents; finally, an allocation is said to be *Pareto* optimal if there does not exist any other allocation that makes at least one individual better off without making other agents worse off). A key assumption that must be made if the theorem is to hold is that the characteristics of all products traded on the market should be equally observed by all agents. When this assumption fails to hold, i.e. when information is *asymmetric*, prices are distorted and optimality in the allocation of resources is not achieved. Standard government interventions such as regulation of monopolies to replicate a competitive environment, or fiscal policy to alleviate the effects of externalities, are no longer sufficient to restore optimality. Similarly, in the finance literature, the Modigliani–Miller theorem concluded that the value of a firm is independent of its financial structure. The acknowledgement of asymmetric information within organizations shifted the debate on optimal financial structure from fiscal considerations to the provision of incentives to align the interests of managers and workers with the interests of stakeholders.

When two (or more) individuals are about to agree on a trade, and one of them happens to have some information that the other(s) do not have, this situation is referred to as *adverse selection*. Seminal contributions include Akerlof (1970), Spence (1973), and Rothschild and Stiglitz (1976) (in 2001, the Nobel Prize in Economic Science was awarded to Akerlof, Spence and Stiglitz 'for their analyses of markets with asymmetric information'). Each of these three papers investigates the implications of adverse selection on the product, labour and insurance markets respectively. Akerlof (1970) considers the example of a seller who has private information about the quality of a used car. A buyer would like to acquire a car, but is keen on paying a 'fair' price for it, i.e. a price that is consistent with the quality of the car. To make things more concrete, suppose that there are nine different cars, each car having 'fair' value, $100, $200...$900 respectively. As the buyer cannot observe quality, owners of low-quality cars will always claim they are selling a high-quality product worth $900. A fair price will then reflect the average quality of the market, in this case $500. However, sellers whose cars are worth more than $500 find such a price too low, and so they exit from the market. The average price must then drop to $300, inducing more exits, and so forth. Consequently, with the exception of sellers who are offering the worst-quality cars worth $100, no seller is willing to sell a car that a buyer is willing to buy! Spence (1973) refers to a similar mechanism when workers 'sell' their labour to firms and have private information about their skills, while Rothschild and Stiglitz (1976) analyse the insurance market in which it is the buyer who has the advantage of private information, since he or she knows more about his or her health or his or her driving skills than does the insurer.

The literature on adverse selection then investigates arrangements that allow segmentation of the market according to unobserved quality. There are studies, for example, of how insurance companies and banks *screen* their customers with the use of deductibles and collateral requirements (Rothschild and Stiglitz 1976); how sellers *signal* the quality of their products by offering product-warranties to customers or how workers *signal* their ability by getting academic degrees (Spence 1973). It is important to emphasize that market segmentation does not primarily come from some information inherent to, say, warranties or deductibles, but rather from a *menu of contracts* offered to agents that leads to self-selection, revealing their private information. In the examples mentioned above, such menus would be of the form *low insurance premium, high deductible* or *high insurance premium, low deductible*, and in the product market example, of the form *low price, no warranty* or *high price, 1-year warranty*. Such menus then induce careful drivers to opt for a *low premium, high deductible* contract, while less careful drivers prefer to pay a high premium and face a low deductible in case of accident. Similarly, sellers of high-quality goods will want to charge a high price but offer in exchange a one-year warranty to customers. This is a policy that sellers of low-quality goods are not willing to mimic.

On the other hand, the case in which the information asymmetry occurs *after* an agreement is obtained between individuals is called *moral hazard*. The framework often used to analyse moral hazard situations is the *principal–agent problem*, whereby one individual – the principal – wants to hire another individual – the agent – to perform a given task. However, once the contract has been signed, the agent can either take an action that the principal is unable to observe (hidden action), or obtain information about some characteristics of the environment that the principal cannot acquire (hidden information). As opposed to the previous case, in which agents were offered a menu of contracts, moral hazard situations imply that every agent is given the same contract. The contract must therefore take into account future information asymmetries, and hence address the *incentives* problem. Analyses of the principal–agent problem follow pioneering works due to Mirrlees (1999), Holmström (1979) and Grossman and Hart (1983).

To illustrate this phenomenon, consider the example of the car insurance market developed in Mirrlees (1999). A driver (the agent) wants to buy insurance from an insurance company (the principal). The source of concern is that once the insurance contract is signed, the insurance company cannot observe whether the driver is careful enough. In the present case, there is no attempt to evaluate the skill of particular drivers, as opposed to the adverse selection situation addressed previously. The objective of the contract is to make drivers financially accountable for their misbehaviour, so to induce careful driving. How can the insurance company motivate the driver to take care? Suppose that it can put a camera in every single car to monitor the driver's behaviour. It could then contract with the driver that he or she would drive carefully (after agreeing on the definition of what 'carefully' means), and that in exchange the insurance would cover all costs due to any traffic accident. In this hypothetical world of symmetric information, such a contract would be optimal in that it transfers all uncertainty from risk-averse drivers on to risk-neutral insurance companies. However, putting a camera in every car is not (yet) feasible. If insurers nevertheless keep offering the same contract, drivers are fully insured against risks that are independent of how they drive their cars but also against risks arising from their own misbehaviour. This will probably lead to less careful driving, an increase in the number of accidents and a larger risk-premium. Drivers are the first to be harmed by such an outcome. An alternative to full coverage is accordingly desirable, in order to provide incentives to drive carefully. In short, an optimal contract in an environment with moral hazard must trade insurance off against the provision of incentives. The application of deductibles, and the prospects of increased insurance premiums following repeated accidents, are examples of measures designed to induce careful driving.

The principal–agent framework is now widely used to address issues ranging from public economics to corporate finance. What is quality control if not the alleviation of information asymmetries between management and employees by making actions observable? Stock-options, salaries paid in cash and in stocks, and merit-based salary increases are all examples of instruments that aim at providing the right incentives to constituencies of an organization, aligning their own objectives with the objectives of stakeholders.

A more complex version of the principal–agent problem may involve several agents: a seller (the principal) wants to sell a good to several buyers (the agents), but does not have information on how much buyers are willing to pay for the good. The design of the appropriate contract in this particular environment is nothing less than the starting-point of the theory of auctions. Another modification could consist of considering one agent but several principals. Such a *common agency* framework is useful to analyse a large set of situations including voters choosing their representatives, producers selling their goods through intermediaries, or even parents educating children!

Asymmetric information considerations have encompassed all fields of economics and finance. Recognizing that the presence of information asymmetries could be the source of large economic inefficiencies, considerable emphasis has been placed on the characterization of mechanisms or institutions that could alleviate the information asymmetry. The economics of information has opened new avenues for research and policy in the social sciences, which surely contributed to a better understanding and management of our economic and social environment.

QUY-TOAN DO
THE WORLD BANK

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SEE ALSO: competition; contracts; markets

ATTITUDES

The capacity to differentiate hostile from hospitable stimuli within the environment is arguably the single most important aspect of human functioning. It is perhaps no surprise, then, that the study of ‘attitudes’ – people’s general and relatively enduring evaluative responses to objects – has long been one of the most central and most fertile domains within the field of social psychology. Indeed, the attitude has been described as ‘the most distinctive and indispensable concept in contemporary American social psychology’ (Allport 1935: 798).

In the decades since this bold claim, interest in the attitude construct has wavered very little. Today, a search of the psychological literature using ‘attitude’ as the search term yields more than 40,000 articles, chapters, books and dissertations. And this extensive literature attests to the fact that, as Allport (1935) suggested nearly 70 years ago, attitudes often exert a powerful influence on perception, cognition and behaviour, profoundly shaping people’s interactions with the social world (for a review, see Eagly and Chaiken 1993).

What is an attitude?

Conceptualizations of the attitude construct have changed over the years, but most contemporary researchers define an attitude as a general, relatively enduring evaluation of an object. Attitudes are evaluative in that they reflect the degree to which our response to an object is positive and approach-oriented versus negative and avoidance-oriented. Indeed, attitudes are typically conceptualized as falling along a bipolar dimension ranging from extremely negative to extremely positive. Attitudes are general in that they reflect our overall, summary evaluation of an object (which may be based on a number of more specific positive and negative attributes of the object). Attitudes are enduring in that they are presumed to be represented in long-term memory and to exhibit at least some stability over time, rather than being fleeting evaluative responses to an object. Finally, attitudes are specific to particular objects (such as a person, a group, an issue or a concept) rather than diffuse evaluative responses (such as moods).

How are attitudes formed?

Attitudes can be derived from one or more distinct classes of antecedents. Some attitudes are based primarily on our cognitions about an attitude object. We may come to support a particular political candidate, for example, because of our beliefs about the policies he or she will promote and the skills and attributes he or she is perceived to possess. These beliefs may form an elaborate interconnected cognitive structure containing all of the knowledge that we possess about the candidate, and from this set of cognitions we may derive a positive overall evaluation of the candidate.

Other attitudes are based primarily on our affective reactions to an object. Instead of deriving our attitude towards a candidate from our beliefs about him or her, for example, we may base our overall evaluation on the feelings that we associate with him or her. A candidate who evokes feelings of pride and hope may be evaluated positively, whereas one who evokes feelings of fear or anger may be evaluated negatively.

Attitudes can also be derived from our past behaviour. Sometimes this occurs through self-perception processes. Just as we infer others' attitudes from the behaviours that they perform, we sometimes look to our own behaviour for insights regarding our attitudes (Bem 1972). When asked about our attitude towards a political candidate, for example, we may canvas our memory for relevant information. One thing that may come to mind is past behaviour relevant to the candidate. We may recall, for example, having accepted a button from one of the candidate's campaign workers, or adding our name to a petition when a co-worker was collecting signatures in support of the candidate. From these behaviours, we may infer that we hold a positive attitude towards the candidate.

Our behaviour can influence our attitudes in a second way as well. Rather than inferring our attitudes from our behaviours, sometimes we change our attitudes to bring them into line with past behaviours. One of the central themes of the attitude literature during the 1960s was the notion that people strive to maintain consistency among the elements of their cognitive system (e.g. attitudes, beliefs). According to cognitive dissonance theory, inconsistency between cognitions produces an uncomfortable state of arousal, one that people are highly motivated to reduce (e.g. Festinger 1957). For example, the knowledge that we have performed a behaviour that is incongruent with our attitude is often uncomfortable. Resolving this discomfort requires bringing these elements into harmony with one another. Because the behaviour has already been performed and cannot be undone, the easiest way to restore consistency often involves changing the attitude to make it congruent with the behaviour. And, indeed, a wealth of empirical evidence suggests that people often do modify their attitudes to bring them into line with past behaviours, consistent with cognitive dissonance theory.

Why do we hold attitudes?

Attitudes are presumed to serve important psychological functions for people (e.g. Katz 1960; Smith *et al.* 1956). Perhaps the most basic of these is a 'utilitarian' function – attitudes help us to gain rewards and avoid punishment by summarizing the positive or negative outcomes with which an object is associated, efficiently guiding our behaviour regarding the object. Without attitudes stored in memory, we would be required to assess the evaluative implications of an object each time we encounter it to determine whether to approach or avoid the object, a process that would quickly exceed our cognitive capacity and would be dangerously slow in situations that require immediate action.

Attitudes can serve one or more other psychological functions as well. Some attitudes serve a 'value-expressive' function. They enable us to affirm central aspects of our self-concept by expressing our core values. Other attitudes serve a 'social-adjustive' function, facilitating smooth social interactions with important others. Holding a positive attitude towards environmental conservation, for example, may make it easier to get along with close friends who hold pro-environment attitudes. And some attitudes serve an ‘ego-defensive’ function, protecting us from having to acknowledge unpleasant aspects of ourselves. We may project our own unacceptable impulses or feelings of inferiority onto out-groups, for example. By holding negative attitudes towards out-group members, we distance ourselves from these negative aspects, protecting our self-image.

What do attitudes do?

A large literature attests to both the ubiquity of attitudes and their impact on behaviour. There is clear evidence, for example, that attitudes are activated automatically upon encountering an object. Indeed, before we have finished processing the semantic meaning of an object, our brains have extracted its evaluative meaning. Evidence from psychophysiological studies suggests that almost instantly objects are categorized into things that we like versus things that we dislike.

And once an attitude has been activated, it has predictable consequences for thought and behaviour. For example, attitudes often bias our judgements regarding the logical validity of syllogisms. If the consequence of a syllogism is attitude-congruent, we perceive the syllogism to be more logically valid than if the consequence is attitude-incongruent. Attitudes also shape our interpretation of ambiguous stimuli: people on both sides of an issue have been shown to interpret an ambiguous passage of text as supporting their own position on the issue. Attitudes bias our predictions about the future as well – preferred outcomes are seen as more likely to occur. And our own attitudes shape our perceptions of other people’s attitudes – we tend to overestimate the prevalence of our attitudes.

There is also plenty of evidence that attitudes motivate and guide behaviour. For example, people’s attitudes towards snakes are strongly predictive of their behaviour when confronted by a snake. And attitudes towards political candidates are excellent predictors of voting behaviour. Indeed, attitudes have been shown to predict behaviour towards a diverse range of objects, including recycling, littering, alcohol, contraception and breast feeding, among many others.

An important caveat

Attitudes do not always exert powerful effects on thought and behaviour, however. In fact, from the start, inconsistencies within the attitude literature surfaced with troubling frequency. Sometimes attitudes seemed to be entirely unrelated to thought and action. By the late 1960s, the number of glaring inconsistencies in the literature had grown sufficiently large to lead some prominent scholars to question the very existence of attitudes.

Since then, tremendous strides have been made towards clarifying the nature of attitudes and identifying the conditions under which attitudes exert strong effects on cognitive and behavioural outcomes. We now recognize, for example, that attitudes influence thought and behaviour for some types of people more than others, and in some situations more than others. More recently, social psychologists have also come to recognize that some attitudes are *inherently* more powerful than others. That is, across people and situations, some attitudes exert a strong impact on thinking and on behaviour, whereas others are largely inconsequential. Similarly, some attitudes are tremendously durable, resisting change in the face of a persuasive appeal and remaining stable over long spans of time, whereas others are highly malleable and fluctuate greatly over time.

The term ‘attitude strength’ is often used to capture this distinction, and researchers have identified a number of specific attributes of an attitude that are associated with its strength (Petty and Krosnick 1995). For example, attitudes tend to be strong and consequential when they are deemed personally important to the attitude holder, when they are based on a large store of attitude-relevant knowledge, when they are held with great certainty, and when they are highly accessible in memory. A large literature now exists documenting the relations between roughly a dozen of these attitude attributes and the durability and impactfulness of an attitude.

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SEE ALSO: prejudice; stereotypes

AUCTIONS

Auction theory is one of economics' success stories. It is of both practical and theoretical importance: practical importance, because many of the world's most important markets are auction markets, and good auction theory has made the difference between successful auctions and disastrous ones; theoretical importance, because lessons from auction theory have led to important insights elsewhere in economics.

Auctions are not a new idea: the Babylonians auctioned wives, the ancient Greeks auctioned mine concessions and, in addition to their notorious slave auctions, the Romans auctioned everything from war booty to debtors' property. In the modern world, auctions are used to conduct a huge volume of economic transactions. Governments use them to sell treasury bills, foreign exchange, mineral rights including oil fields, and other assets such as firms to be privatized. Government contracts are typically awarded by procurement auctions, and procurement auctions are also often used by firms buying inputs or subcontracting work; in these cases, of course, the auctioneer is seeking a low price rather than a high price. Houses, cars, agricultural produce and livestock, art and antiques are commonly sold by auction. Other economic transactions, for example takeover battles, are auctions by another name.

The range of items sold by auction has been greatly increased by e-commerce, and in the last decade or so there has also been an explosion of interest in using auctions to set up new markets, for example for energy, transport and emissions permits. Although many of these markets do not look like auctions to the layman, they are best understood through auction theory. (For example, electricity markets are best described and analysed as auctions of infinitely divisible quantities of identical goods.) Probably the most famous of the new auction markets have been the auctions of mobile phone licences across the world (Klemperer 2002, 2003a).

Two basic designs of auction are most commonly used: the ascending auction, in which the price is raised successively until only one bidder remains and that bidder wins the object at the final price he or she bid; and the first-price sealed-bid auction, in which each bidder independently submits a single bid without seeing others' bids, the object is sold to the bidder who makes the highest bid, and the winner pays his or her bid.

The key result in auction theory is the remarkable *Revenue Equivalence Theorem* that tells us, subject to some reasonable-sounding conditions, that the seller can expect equal profits on average from all the standard (and many non-standard) types of auctions, and that buyers are also indifferent among them all. William Vickrey's Nobel Prize was in large part awarded for his (1961, 1962) papers that developed some special cases of the theorem, and Riley and Samuelson (1981) and Myerson (1981) offer more general treatments.

Much of auction theory can be understood in terms of this theorem, and how its results are affected by relaxing its assumptions of a fixed number of symmetric, risk-neutral bidders, who each want a single unit, have independent information, and bid independently. Myerson's (1981) paper shows how to derive optimal auctions (that is, auctions that maximize the seller's expected revenue) when the assumption of symmetry fails. Maskin and Riley (1984) consider the case of risk-averse bidders, in which case the first-price sealed-bid auction is the most profitable of the standard auctions. Milgrom and Weber (1982) analysed auctions when the assumption of independent information is replaced by one of 'affiliated' information, and showed that the most profitable standard auction is then the ascending auction. (Roughly, bidders' information is affiliated if when one bidder has more positive information about the value of the prize, it is more likely that other bidders' information will also be positive.) Models of auctions in which bidders demand multiple units lead to less clear conclusions. For practical auction design, however, it is probably most important to relax the assumptions that there are a fixed number of bidders and that they bid independently; sealed-bid designs frequently (but not always) both attract more serious bidders and are better at discouraging collusion than are ascending designs (Klemperer 1998, 2002).

The predictions of auction theory have been the basis of much empirical and experimental work. In particular, auctions have become a leading testing ground for game theory because they are particularly simple and well-defined economic institutions, constraining the extensive form of the game so tightly that sharp qualitative predictions are possible (Hendricks and Porter 1988; Kagel and Roth 1995; Laffont 1997). There has been considerable debate in this literature about whether or not bidders really fall prey to the famous 'winner's curse' – the phenomenon that if the actual value of the prize is uncertain but the same for all the bidders, the winning bidder will often lose money if he or she made her bid without allowing for the fact that winning suggests he or she is among the most optimistic bidders.

Auction theory has also been the basis of much fundamental theoretical work not directly related to auctions: by carefully analysing very simple trading models, auction theory is developing the fundamental building-blocks for our understanding of more complex environments. It has been important in developing our understanding of other methods of price formation, including posted prices, and negotiations in which both the buyer and seller are actively involved in determining the price.

There are especially close connections between the theories of auctions and perfect competition. Wilson (1977), Milgrom (1979) and others have developed conditions under which the sale price of an object whose value is the same to all bidders converges to this value as the number of bidders becomes large, even though each bidder has only partial information about the value. The fact that the auction thus fully aggregates all of the economy's information justifies some of our ideas about perfect competition and rational expectations equilibrium.

There is also a close analogy between the theory of optimal auctions and the theory of monopoly pricing; the analysis of optimal auctions is 'essentially equivalent to the analysis of standard monopoly third-degree price discrimination' (Bulow and Roberts 1989). Insights can therefore be translated from monopoly theory to auction theory and vice versa.

More recently, auction-theoretic tools have been used to provide useful arguments in a broader range of contexts – including many that do not, at first sight, look like auctions – starting with models of oligopolistic pricing, running through non-price means of allocation including queues, wars of attrition, lobbying contests, other kinds of tournaments and rationing, and extending to models in finance, law and economics, labour economics, political economy, etc. (Klemperer 2003b). It turns out that a good understanding of auction theory is valuable in developing intuitions and insights that can inform the analysis of many mainstream economic questions.

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SEE ALSO: bargaining; competition; experimental economics; game theory; markets

AUTHORITARIAN AND TOTALITARIAN SYSTEMS

Authoritarian systems are political regimes that are characterized by a concentration of political power in the hands of a small group of political elites who are not in any institutional sense accountable to the public. Thus, they lack those traits that distinguish liberal democratic orders – in particular, extensive civil liberties and political rights guaranteed by law, interparty competition, free, fair and regular elections, and, finally, representative government.

There are many forms of authoritarian government. Rule can be by the military or by civilian politicians, and political power can be exercised by individuals acting on their own account or as leaders of a political movement or political party. Moreover, dictatorships vary in their ideological commitments, with some leftist in terms of goals and class representation, and others rightist. Perhaps the most important distinction among authoritarian regimes, however, is on the dimensions of despotism and penetration (Mann 1986). Despotism refers to the extent to which the exercise of political power is both capricious and violent, whereas penetration refers to the extent to which the state intervenes in daily life. At one end of this continuum would be 'soft and superficial' dictatorships. This is where the reach of the state is limited, where repression is also limited, and where publics – and elites outside the inner governing circle – have some room for political and economic manœuvre. At the other end of the continuum would be 'hard and deep' dictatorships, or totalitarianism. This is where an interlocking and highly centralized party–state directorate uses terror, detailed organization and ideological indoctrination to control virtually all aspects of political, social and economic life (Friedrich and Brzezinski 1956). In the first case, there are boundaries separating politics, economics and society, whereas, with totalitarianism, such boundaries disappear.

The rise of states as forms of political organization was accompanied by the rise of authoritarianism. In this sense, authoritarianism is as old as the state itself, because it was through authoritarian political practices that states began to form (Anderson 1974; Tilly 1975). However, beginning in the eighteenth century in Europe, states began to differentiate themselves in terms of their degree of accountability to the public. This process – which eventually led in England and France, for example, to the rise of democracy – has produced a spirited set of debates about the rise of democracy versus the consolidation of authoritarian rule in fascist and communist forms (Moore 1967; Rueschemeyer *et al.* 1992; Anderson, Jr *et al.* 2001).

Debates have also flourished on three other issues. One is why some democracies evolve into authoritarian systems (Collier 1979; Luebbert 1991). Another is why some authoritarian systems collapse and give way to more liberalized political orders (Bunce 1999; Di Palma 1990). A final issue addresses the legacies of authoritarian rule and their consequences for democratic politics (Howard 2003).

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SEE ALSO: fascism; military regimes; power

AUTHORITY

Authority involves a distinctive type of command and an associated type of compliance. It is a distinct subset of power: like coercion, persuasion, influence and manipulation, it is a way of getting others to do what they would not otherwise do (and where what they do is what you want them to do). But a command involves the exercise of authority if and only if it implicitly or explicitly claims a right to determine how the other should act *and* is able to elicit compliance which recognizes that right to command.

Coercion works by creating disincentives for some set of actions; when people respond to coercion they do so to avoid incurring costs that are threatened or actual. Persuasion works by changing the agent's view of what he or she must do to secure some objective or interest. But much social and political behaviour is difficult to explain if people are assumed to act only in response to threats and sanctions or to efforts at rational persuasion – persuading them, for example, that *x* rather than *y* course of action more fully meets their interests. In emergency situations, for example, commands are often authoritative simply because they offer clarity of direction in the midst of confusion – they provide a salient co-ordination solution and orders will be accepted so long as they fall within a reasonable range. Moreover, they are often authoritative over bystanders whose interests are not directly affected by the emergency, and who could just walk away. In such cases we are dealing neither with coercion, since there are no sanctions, nor with persuasion, since in many cases there is no occasion to provide an explanation or justification for the command. More widely, there are many cases where we simply accept the right of an individual to command us in some respect – 'all rise', 'move along now', 'don't walk on the grass', 'drink up now', 'keep to the right', and so on. In most cases there is no attempt to persuade and no threat, yet the commands produce compliance. At a more general level still, most states and social and economic institutions are able to secure people's compliance with very low levels of coercion, and without engaging in extensive deliberation and persuasion. In both cases, the suggestion is that much co-ordinated social and political behaviour can be understood as involving a distinctive type of compliance that is elicited in the exercise of authority. There are different explanations for this behaviour, with some giving greater weight to implicit coercion, information costs and risk aversion, and others to shared understandings and values, but there is wide recognition that this remains a distinctive type of social action. In understanding this relationship of command and compliance several distinctions are of value (Friedman 1973; Lukes 1978; Raz 1986, 1989).

What is it that is special about the character of the command and of the compliance that Y renders X which marks off authority from coercion and rational agreement? Essentially, a command appeals to authority when it implicitly or explicitly claims a right to determine the action of the subject of the command. A command that does not imply this right effectively implies a threat and becomes an attempt at coercion (and to that extent ceases properly to be a 'command'). The form of compliance is also distinctive. Coercion secures Y's compliance by the use of force or threats; persuasion convinces Y by appeal to arguments that an action is in Y's interests, or is, for example, morally right, or prudent; but Y complies with X's authority when Y recognizes X's right to command in a certain sphere. Y surrenders the right to make compliance contingent on an evaluation of the content of X's command, and obeys because X's order comes from an appropriate person and falls within the appropriate range. A servant who makes up her mind as to whether or not she will obey her mistress's commands depending on whether she thinks them reasonable or is concerned only to avoid penalties for failing to do so, is not responding to her mistress's authority. One who obeys the commands because she acknowledges her mistress's right to command her within a particular domain, does acknowledge – and thereby completes – her mistress's authority.

Authority is a two-tier concept: it refers to a mode of influence and compliance, and to a set of criteria that identify who is to exercise this influence over whom. For this influence to take effect it must be exercised 'within a certain kind of normative arrangement accepted by both parties' (Friedman 1973). The set of criteria can develop a certain independence from the relationship of command and compliance. Thus, someone who tries to exercise authority and fails, e.g. the Speaker calling 'Order!' in an especially unruly meeting of the House of Commons, may still be recognized as occupying a position of authority, despite the fact that in this instance he is unable to ensure that his right to compliance takes effect. Here the distinction between *de facto* and *de jure* authority is helpful (Peters 1967; Winch 1967). *De facto* authority is evidenced whenever Y complies with X in the appropriate manner; *de jure* authority exists where X has a right to Y's compliance in a given area that derives from a set of institutional rules or more general societal norms. That X has *de jure* authority does not entail that X will also have *de facto* authority. But if someone with *de jure* authority never in fact has *de facto* authority then there is room for doubt at to whether the institutional structure or societal norms have any grounding within the broader society – a royal pretender may claim the right to rule but if that right receives no institutional support or normative recognition, and no compliance, the claim to *de jure* authority seems empty. Inversely, someone can recognize another as having a right to rule even in the absence of a broader institutional or widely shared normative background of justification – so that a *de facto* authority relationship can exist without a *de jure* relationship. We have, however, to press the question of why the person who complies treats their commander's utterances as normative for them. As Hart (1961) argues, for someone to recognize that an authority exists we do seem to require the existence of some underlying 'rules of recognition' or 'marks' by which to identify those eligible to exercise it, and it seems odd to think that the act of recognition can in itself wholly confer (rather than partly respond to) such marks. But the broader sense that authority relationships may start from either end does seem to be right: developing customary compliance may generate institutional orders and societal norms within which *de jure* authority can be claimed and exercised; and the establishment of institutional orders and associated claims to authority may over time come to elicit *de facto* compliance.

One issue that concerns social scientists is the appropriate background account required to explain the existence of authority relationships. For example, MacIntyre (1967) and Winch (1967) see authority relationships as reflecting underlying common traditions, practices, sets of beliefs and norms in a society, and they see authority as functioning most effectively the higher the level of normative integration (see also Arendt 1963; Parsons 1960; Durkheim 1992 [1957]). In contrast, some game-theoretic accounts see the norms and rules of the social order as providing a co-ordination solution from which each gains – but where the gain is used to explain the resilience of the institutions and their related claims to authority, rather than being offered as an account of the motive for each act of compliance (see Hobbes 1651; Hardin 2004; see also Elster's (1989) discussion of the power of norms that suggests the limits of game-theoretic accounts). Finally, if we operate with a more deeply conflict-based account of the social and political order we will tend to explain political and social authority as the outcome of habituated obedience originally instilled through coercion, so that, although social order is imposed by force, it derives its permanence and stability through techniques of legitimation, ideology, hegemony, mobilization of bias, false consensus and so on, which secure the willing compliance of citizens through the manipulation of their beliefs (Lukes 1978; Weber 1978 [1922]). These perspectives offer different accounts of the origins, grounds and likely stability of authority relationships, but they do so while sharing an understanding of what it is for X to exercise authority over Y. Similarly, Weber's distinctions between traditional, charismatic and legal-rational authority are best understood, not as different types of authority so much as different bases upon which authority relationships may rest.

A further important distinction is that between being *an* authority and being *in* authority. The former concerns matters of belief; the latter concerns X's place in a normative order with recognized positions of *de jure* authority. When X is *an* authority, X is held to have, or successfully claims, special knowledge, insight, expertise and so on, which justifies Y's deference to X's judgement. When X is *in* authority, X claims, and is recognized as occupying, a special institutional role with a co-ordinate sphere of command (as with Weber's legal-rational authority (1978 [1922])). When Y complies with X's judgement where X is *an* authority, Y's compliance involves belief in the validity of A's judgement; whereas, when X is simply *in* authority, Y may disagree yet comply because Y recognizes X's *de jure* authority. Traditional and charismatic leaders are authoritative over belief and value; leaders in legal-rational systems are granted authority in certain spheres of action for convenience and may be authoritative over neither belief nor value. Where X is *an* authority, X's influence over Y relies on Y's continued belief in X's guaranteed judgement. Where X is *in* authority, X relies on Y continuing to recognize that X fulfils a valuable co-ordination function. Both systems may face legitimation crises when Y no longer believes X or no longer believes that X successfully co-ordinates. However, both systems may seek to maintain Y's belief through a variety of techniques: ideology, hegemony, mobilization of bias and so on (Habermas 1976 [1973]).

There is also an issue of the scope of authority, both in terms of the extent to which a given society is governed by relations of authority across a wider rather than narrow range of political, social and legal institutions, and in terms of the range within which a given individual accords to another the right to rule him or her. On the first count, there has been a tendency to use the term authoritarian regime to describe regimes that are invasive across a wide range of political, social and personal behaviour, and demand unresisting compliance no matter how intrusive the command. The analysis of such regimes in the postwar period often suggested that people's indoctrination was such that they accepted the state's claim to this scope and depth of intrusion. But the collapse of such regimes, in Central and Eastern Europe in particular, raised doubts as to how far people's compliance with the regime really had had much to do with authority rather than fear and coercion – saying and doing 'the right thing' is not equivalent to doing so for the right reason (a recognition of the right to rule) (see Kuran 1995 and Scott 1990). The second issue, concerning the range within which an individual accords to another the right to rule, also deserves further exploration: Y's compliance with X's authority may be

1 unlimited, as when Y will accept any order issued by X as legitimate;
2 delimited, so that Y has a clear sense of the boundaries within which X may command him or her;
3 uncritical in that B makes no attempt to consider the content of the order (so long as it falls within the appropriate domain); or
4 critical, where B complies because he recognizes A's right to command, but nonetheless has reservations as to the wisdom of doing so.

Categories 1 and 2, and 3 and 4, are contrastive, but the two sets may cut across each other. In any analysis of an authority relationship we can refine the description by identifying the precise character of Y's compliance. X's charismatic authority may elicit unlimited compliance, without the compliance being uncritical, or it may be delimited but uncritical. These dimensions help clarify the dimensions of a particular relationship of authority, but they do so within a common definition of the essential character of an authority relationship.

Many writers have referred to authority as 'legitimate power'. Although this rather muddies the waters by linking a partly consensual relationship of command and compliance with a coercive implication, there is a clear case in which the phrase does make sense. If power is understood as the ability to get others to do what they would not otherwise do then, for X to have authority over individuals $Y_{1\ldots n}$, is for X to be able to get them to act in ways they would not otherwise have acted and for him to do so through commands that are recognized as legitimate by those subject to them. This treats authority as a subset of power, and defines power as legitimate when it involves the exercise of authority and evokes the appropriate form of compliance. The term is less helpful when it is used to describe a case where X coerces Y where X's *de jure* authority over Y fails to elicit Y's compliance. This usage risks ambiguity because it fixes the content of 'legitimate' by reference to X's institutional position, and in doing so it treats all *de jure* authority as legitimate. Yet, if people are not complying appropriately then they are not responding to the claim to authority and they cannot be said to regard the exercise of power as legitimate. And while some instances (like the Speaker of the Commons) clearly can claim broader legitimacy, it is not invariably the case that institutional claims have overriding legitimacy despite being, in practice, unable to elicit the compliance of those nominally subject to them. Crumbling authoritarian orders have many institutional structures but it is questionable to regard a claim to authority as legitimizing their coercion of their recalcitrant subjects.

A final set of issues concerns the authority of the state within democratic orders. There is a basic sense that it is preferable to live in political orders that can rely on authority rather than on the continuous exercise of force and coercion (presuming that a state based wholly on free and open deliberation is implausible). Moreover, the more that this authority resides in laws, procedures, institutions and offices, rather than being attached to the personal attributes of individuals, the closer we approach to an ideal of a constitutional and procedural state, in which a high level of consensus and a high level of efficient coordination of collective action can be achieved. In many respects this ideal provided the basis for idealized views of the nineteenth-century constitutional state. But this ideal was not strongly democratic. Moreover, the tendency in many modern democratic orders to increase the accountability and regulation of those exercising power and authority within the state can threaten to erode the authority of modern democratic states. The assumption that the governed should be able to regulate and scrutinize the activities of politicians and public servants to ensure that they act in the public's interest is now unremarkable, yet there are grounds for concern that direct forms of popular accountability are fundamentally incompatible with preserving the authority of public office. Judges who are directly elected and subject to democratic recall are hard pressed to function independently of public opinion, and their authority is correspondingly undermined; civil servants who are directly accountable to the public (or who are made wholly subordinate to their political masters) become subservient to those to whom they are answerable, rather than having institutional authority by virtue of their official position and function; and politicians who become wholly subordinate to public opinion no longer exercise authority over it. Clearly, such concerns are a matter of tendency, but the suggestion raises two important issues. The first, of interest to theorists of institutional design, concerns the extent to which modern forms of democratic accountability are supportive of, rather than destructive of, political authority. The second concerns the more general issue of how far we are witnessing the evolution of the modern state into forms in which authority is more fragile and less institutionalized – and, if we are, what consequences this might have (will political systems become correspondingly more coercive, more volatile and less procedural?). Complex political systems rely on those in public office having authority to undertake the organizational and administrative tasks they face and it seems increasingly clear that many modern forms of regulation and accountability undercut that authority (see for example Anechiarico and Jacobs 1996). If it is one of the great achievements of liberal constitutional orders to have established procedures and institutions that moderate conflict and constrain the direct pursuit of interests in ways that violate norms of fairness, justice and so on, one of the pressures they face as a result of democratization is that the independence and authority of the offices that make up these institutional orders can easily be eroded (Philp 2001; Suleiman 2003).

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SEE ALSO: leadership; legitimacy; power

B

BALANCE OF PAYMENTS

Popular thinking on the balance of payments reflects the views of a group of seventeenth- and eighteenth-century pamphleteers (called mercantilists, because of their association with merchants) who argued that a country should export more than it imports. The most famous of these mercantilists, Thomas Mun, believed the world's trading activities constituted a zero-sum game and that the balance of trade measured the gains or losses of each country. The mercantilists coined the phrase 'a favourable trade balance'. This quaint notion seems to linger forever in the popular press even though international trade specialists have long argued there is nothing particularly favourable about exports exceeding imports.

The balance of payments is a record of all the economic transactions between the residents of one country and residents of the rest of the world during a specified time period, such as a quarter or a year. It is a bookkeeping system in which positive entries reflect incoming payments and negative entries outgoing payments. Exports of goods and services, visits by foreigners, remittances from foreigners as gifts or income receipts from home assets located in the foreign country, and investments by foreigners in the home country are the main categories of positive items; imports of goods and services, travel to a foreign country, remittances by the home country as gifts to foreigners or as income payments for foreign assets located in the home country, and home investments abroad are the main categories of negative items.

If one thinks about the balance of payments as a series of subaccounts, such as goods, services, income payments on assets, and the capital account, then it is convenient to say that the sum of all the subaccounts must be zero. The USA in the late twentieth century and early twenty-first century had a trade deficit that was counterbalanced by inflows of foreign capital. Without those inflows of foreign capital, interest rates in the USA would have been higher.

Balance of payments theory began with a brilliant 1752 essay by David Hume. Even though the balance of payments is always 'in balance', it may be balanced by drawing down on a country's assets, such as purchasing imports with a country's supply of gold or, in modern times, foreign exchange reserves. A 'deficit' simply means a loss of such reserves. Hume began his essay by pointing out how several decades ago the country was alarmed when a writer suggested that if current trends continued Britain would soon run out of gold. Hume pointed out that the prediction turned out to be completely false. He then set out to explain the mechanism of the gold standard. If two countries base their monetary systems on gold, a balance of payments deficit will be corrected by the impact of the resulting fall in the money supply at home and rise in the money supply abroad. Prices and especially wages will fall at home and rise abroad as a consequence of the redistribution of the world's money supply. As prices fall at home and rise abroad, the 'deficit' will soon be corrected by an automatic mechanism because exports would be cheaper and imports more expensive. In modern times, with large capital flows, interest rate adjustments will also play a role. The same would happen under a flexible exchange rate, because although domestic prices would not change, a country in deficit would find that its exchange rate would depreciate, causing exports to become cheaper compared to imports.

The automatic nature of the balance of payments requires that countries follow certain rules or conventions. Under a fixed exchange rate standard, countries must allow deficits to reduce the supply of money and surpluses to increase the supply of money. Thus deficits would be accompanied by downward pressure on wages and prices, and upward pressure on interest rates. Countries that operate a floating exchange rate system must not try to peg the exchange rate. If deficits are neutralized by domestic policy instruments, the causes of the deficit persist and a balance of payments crisis may erupt. But if deficits are not neutralized, the automatic adjustment works quite well in practice. The euro, the common European currency, is based on Hume's theory of balance of payments adjustment because there is a European Central Bank that determines the total supply of euros rather than the distribution of euros within Euroland. The same happens within the USA with the dollar. Should New York have a deficit and Texas a surplus, the money supply shifts from New York to Texas, which puts pressure on prices and interest rates in such a manner as to cure the disequilibrium. It is 'automatic' because New York and Texas do not have the institutions in place to increase their domestic money supplies independent of what the central monetary authority is doing.

Floating exchange rates govern the balance of payments in trade between Europe, the USA, Japan, and the UK. When exchange rates are allowed to fluctuate freely, adjustments are effected by simply changing the exchange rate instead of adjusting internal wages and interest rates. After the Second World War there was a brief experiment with a system of adjustable 'pegged' exchange rates. This broke down by 1972 when it was discovered that such a system is prone to excessive speculation, since there is little to lose from betting against a country that is losing a large fraction of its foreign exchange reserves. The floating system has worked well compared to the pre-1972 system of pegs, with its recurrent crises.

Three aspects of the balance of payments deserve emphasis. The first is that under stationary conditions there is a tendency to go through certain stages. Should a country be a young creditor country, it must have a trade surplus to finance its foreign investments abroad, and its income from foreigners will be comparatively small. Over time, however, foreign assets abroad will accumulate, causing a surplus on the income account. As time goes on this surplus can outweigh the capital outflow and bring about a state of permanent trade deficit when the country is a mature creditor country. A young debtor country could similarly start with a trade deficit and end with a trade surplus. In the late twentieth century and the early twenty-first century the USA was a young debtor country, and thus had a large trade deficit. Should current trends continue, as obligations to pay income abroad increase, the USA is likely to generate a trade surplus, without any change in the USA's competitiveness.

A second point to remember is that no matter what the composition of the balance of payments, there appears to be no link with the general rate of unemployment. The reader can confirm this by taking any country with a reasonable data base and running a correlation between imports or exports (relative to Gross Domestic Product) and the unemployment rate. It will always be the case that if there is a positive correlation of imports with unemployment, there will also be a positive correlation with exports! Similarly, if there is a negative correlation with exports, there will be a negative correlation with imports. Any correlation that is observed is accidental; what is not accidental is that the correlations between unemployment and either imports or exports should be the same because exports and capital inflows pay for imports and capital outflows.

Third, since the balance of payments is a series of accounts, some will be in deficit while others are in surplus. It is a mistake of the first order to fear deficits in one account while ignoring the surpluses in the other accounts. Indeed, deficits in a particular subaccount, such as trade, is not in itself bad because it is the other side of the coin to the surplus in other accounts. Likewise, a surplus on the trade account and a deficit in the capital account is not in itself good. Both sets of circumstances are the way in which the balance of payments reflects the many decisions of businesses and consumers to invest, save and spend according to their private interests.

The most blatant error is to suppose that a country loses on its exchanges with another country if it runs a large bilateral trade deficit.

The gain from trade consists primarily of the imports. Exports help particular industries, but imports help the country as a whole. Exports may be regarded as the price that has to be paid to purchase the imports. The invisible hand of free competition enables a country to acquire products or services that it cannot produce, or which cost more labour and capital than is required to produce the exports that pay for them.

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SEE ALSO: exchange rate; international trade; national accounts

BANKING

The word for a bank is recognizably the same in many European languages, and is derived from a word meaning 'bench' or 'counter'. The bench in question appears to have been that of the money-changer at the medieval fairs rather than that of the usurer, and the link of banking with trade between nations and communities has been maintained. The early banks were often started as a subsidiary business by merchants, shippers, cattle drovers and, more recently, by travel agents. Other banks grew out of the business of the goldsmiths, and some of the earliest were founded for charitable reasons. In the last two centuries, however, banking has become a recognizable trade in its own right, and companies and partnerships have been founded to carry on the specific business of banking.

Each legal system has its own definition of a bank. One common element present in nearly all definitions is the taking of deposits and the making of loans for the profit of the owners of the bank, although in some cases the proviso is made that both the deposits and the loans should be short term. An economist would be more likely to seize on the fact that bankers are able to use a relatively small capital of their own to pass large sums from ultimate lenders to ultimate borrowers, taking a margin on each transaction in the form of higher interest rates for loans than for deposits. Both these approaches credit banks with only one function, the macroeconomic function of intermediation. In reality all banks perform many more functions, while some recognized banks are not particularly active as intermediaries. Many provide payment services, and most act as insurers by giving guarantees on behalf of their customers. Services of this sort could plausibly be regarded as facilitating intermediation, but there are many other services that are purely incidental – investment management, computer services and travel agency are among them. Increasingly important in many countries is the part of the bank's income that comes from fees and commission rather than from the interest margin.

Because the liabilities of banks form a large part of the accepted definitions of the money supply, banks attract government regulation on a scale that is greater than that applying to almost every other sector. This regulation can be divided into two main areas. The first is regulation for the purposes of furthering monetary policy. The other area of regulation covers prudent behaviour of banks in an effort to ensure the safe and efficient functioning of the banking system.

Monetary policy seeks to influence the behaviour of the real economy by changing various financial variables like interest rates, the stock of money, the volume of credit and the direction of credit. Since bank deposits account for a large part of the stock of money, and since bank loans are a very important part of the total volume of credit, it is only natural that banks should be the most important channel for monetary policy measures. The measures that have been imposed on banks include control of their interest rates, primary and secondary requirements on holdings of reserves with the central bank and of government securities, limitation of the amount of credit extended, and control over the direction of credit. Many of these measures built on constraints that the banks had previously observed on their own initiative for prudential reasons.

Banking is a business that depends completely on the confidence of the public, and for the most part banks have always been very careful not to endanger that confidence. After the banking crisis of the early 1930s, the self-regulation that banks had practised for prudential reasons was supplemented in most countries by an elaborate set of prudential regulations and often by detailed supervision; the same intensification of prudential regulation and supervision occurred after the 1974–5 banking crisis. The various measures adopted are often said to be motivated by a desire to protect the interests of the depositor, but an even more important motive is the need for any government to protect the stability and soundness of the entire financial system. The measures laid down in regulations are designed to prevent bank failures by ensuring that the capital and reserves are adequate to cover all likely risks of loss, and that there are sufficient sources of liquidity to meet cash demands day by day. Many sets of regulations seek to achieve these aims by detailed and rigid balance-sheet ratios, and since 1989 banks of all kinds in most developed countries have been required to observe a minimum ratio devised by bankers from the largest countries meeting at the Bank for International Settlements in Basle. Under this scheme banks must hold capital equal to at least 8 per cent of the total of risk-weighted assets, the weights ranging from zero for government securities up to 100 for normal bank loans.

The agent for carrying out monetary policy is always the central bank, which is in a specially favourable position for influencing financial flows because it is usually the banker to the government, the main domestic banks and the central banks of other countries; it thus stands at the crossroads between the banking system and the private, public and external sectors, and can influence the behaviour of all of them to various degrees by its regulations and its market operations.

There has long been a strong current of opinion which held that the central bank should not be a government department but should have some autonomy. In the USA and in Italy, the central bank is wholly or partly owned by private banks and not by the government. The Bank of England was not nationalized until 1946. In 1997 it was granted operational independence, subject only to a broad brief from the parliament.

Prudential regulation and supervision are often carried out by the central bank, but many countries, including Germany and the Scandinavian countries, have long had separate supervisory bodies; the USA has several. In 1998, the Bank of England's responsibility for banking supervision was transferred to a new statutory body, the Financial Services Authority.

Since the 1960s, the banking systems of most developed countries have changed considerably in several directions. The first major trend has been the internationalization of banking. Until the mid-twentieth century, banks conducted most of their international business through correspondent banks in the various countries, but most large and many medium-sized banks now reckon to have branches in all important international financial centres. This move was led by the large banks from the USA, and they and branches of banks from other countries have introduced new techniques and been the catalysts for change in many countries whose banking markets were previously sheltered. Banking has also become internationalized through the establishment of a pool of international bank deposits (the eurodollar market) and through syndicated lending by numbers of large banks to multinational corporations and to governments. During the recession that started in 1978, the inability of many governments and other borrowers to meet the conditions of loan repayments has been a considerable source of instability, which continued into the recession that started at the end of the 1980s. The heavy provisions that banks had been forced to make against sovereign debt in the first of the two recessions were joined by provisions against domestic loans in the second. The banking systems of developed countries were considerably weakened by these two bouts of provisions against bad loans, and their large customers turned to the capital market for a much higher proportion of their funding needs. Banks have proved very flexible in this situation by themselves acquiring subsidiaries in the securities industry and in insurance, and by the switch to non-interest income referred to earlier, but the balance of power in the financial system has moved considerably away from banking to the securities markets and to the institutional investors that are the biggest holders of most types of security.

On the domestic scene, the methods of operation of the international banking market have been adopted in what is termed wholesale banking, in which banks deal with large organizations. The technique is essentially the mobilization of large deposits through an interbank money market to provide funds for loans of up to 10 years, often at rates of interest that change every 3 or 6 months.

In retail banking, with households and small businesses, the number of personal customers has increased, especially through the payment of wages into bank accounts rather than by cash. Competition has intensified, and savings banks, building societies and co-operative banks are becoming more like the main banks in their powers and kinds of business. Electronic payment technologies increased competition, making it easier for institutions without branch networks to compete successfully with those that have branches.

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SEE ALSO: capital, credit and money markets; financial regulation; financial system; interest; securitization

BARGAINING

Bargaining is ubiquitous. Married couples are constantly in negotiation about who will do which domestic chores, or who will take the kids to the local park on a wet Sunday afternoon, and the children negotiate homework, bed times and TV rights. Government policy is typically the outcome of negotiations amongst cabinet ministers. The passage of legislation through parliament or congress may depend on the outcome of negotiations amongst the dominant political parties. National governments are often engaged in a variety of international negotiations on matters ranging from economic issues (such as the removal of trade restrictions) to global security (such as the reduction in the stockpiles of conventional armaments, and nuclear non-proliferation and test ban), and environmental and related issues (such as carbon emissions trading, biodiversity conservation and intellectual property rights). Much economic interaction involves negotiations on wages and commodity prices, and the recent wave of mergers and acquisitions provoked highly publicized and nerve-wracking negotiations over the price of these transactions. What variables (or factors) determine the outcome of this whole gamut of negotiations? That is the subject matter addressed by the modern theory of bargaining.

Consider the following situation. Aruna owns a house that she is willing to sell at a minimum price of £50,000; that is, she 'values' her house at £50,000. Mohan is willing to pay up to £70,000 for Aruna's house; that is, he values her house at £70,000. If the trade takes place, and Aruna sells the house to Mohan at a price that lies between £50,000 and £70,000, then both Aruna (the 'seller') and Mohan (the 'buyer') would become better off. This means that in this situation these two individuals have a common interest to trade. At the same time, however, they have conflicting (or divergent) interests over the price at which to trade: Aruna, the seller, would like to trade at a high price, while Mohan, the buyer, would like to trade at a low price. Any such exchange situation, in which a pair of individuals (or organizations) can engage in mutually beneficial trade but have conflicting interests over the terms of trade is a *bargaining situation*. Stated in general terms, a bargaining situation is one in which two or more players – where a 'player' may be either an individual or an organization (such as a firm, a political party or a country) – have a common interest to co-operate, but have conflicting interests over exactly how to co-operate.

There are two main reasons for being interested in bargaining situations. The first, practical reason is that bargaining situations are so important, interesting and widespread. Wherever there is an exchange, the potential for bargaining exists. This is obvious where goods are being exchanged in a market situation, but it is equally true in many social contexts. Even in the intimate and enduring relationship between a husband and wife, bargaining situations constantly recur.

In the political arena, bargaining situations crop up in a variety of forms. For example, when no single political party can form a government on its own (such as when there is a hung parliament), the party that has obtained the most votes will typically find itself in a bargaining situation with one or more of the other parties. Bargaining may sometimes be built into constitutional arrangements. In the USA, for instance, it is often required to cope with the sometimes acute divergences between the policies of the legislative and the executive arms. The second, theoretical reason for being interested in bargaining situations is that understanding such situations is fundamental to the development of an understanding of the workings of markets and the appropriateness, or otherwise, of prevailing monetary and fiscal policies.

The main issue that confronts the players in a bargaining situation is the need to reach agreement over exactly how to co-operate. Each player would like to reach some agreement rather than to disagree and not reach any agreement, but each player would also like to reach an agreement that is as favourable to him or her as possible. It is therefore always possible that the players will strike an agreement only after some costly delay, or indeed fail to reach any agreement.

Bargaining may be defined as any process through which the players try to reach an agreement. This process is typically time-consuming, and involves the players making offers and counter-offers to each other. A main focus of any theory of bargaining is on the efficiency and distribution properties of the outcome of bargaining. The former property relates to the possibility that the players fail to reach an agreement, or that they reach an agreement only after some costly delay. Examples of costly delayed agreements include: when a wage agreement is reached after lost production due to a long strike, and when a peace settlement is negotiated after the loss of life through war. The distribution property relates to the issue of exactly how the gains from co-operation are divided between the players. The principles of bargaining theory determine the roles of various key factors (or variables) on the bargaining outcome (and its efficiency and distribution properties). As such they determine the sources of a player's bargaining power.

If the bargaining process is 'frictionless' – by which I mean that neither player incurs any cost from haggling – then each player may continuously demand that agreement be struck on terms that are most favourable to him or her. So Aruna may continuously demand that trade take place at the price of £69,000, while Mohan may continuously demand that it take place at the price of £51,000. In such a case, the negotiations are likely to end in deadlock, since the negotiators would have no incentive to compromise and reach an agreement. If it did not matter *when* the negotiators agree, then it would not matter *whether* they agreed at all. In most real-life situations, however, the bargaining process is not frictionless. Haggling has a cost because bargaining is time-consuming, and time is valuable to the player. Indeed a player's bargaining power will tend to be higher the less impatient he or she is relative to the other negotiator. Aruna will be able to get a better price for her house if she is less impatient to close the deal than Mohan is.

In general, patience confers bargaining power. A person who has been unemployed for a long time is typically quite desperate to find a job, and so may be willing to accept work at almost any wage. This propensity can be exploited by potential employers, who then obtain most of the gains from employment. Consequently, an important function of minimum-wage legislation is to strengthen the bargaining power of the long-term unemployed. In general, since a player who is poor is typically more eager to strike a deal in any negotiations, poverty (by inducing a larger degree of impatience) adversely affects bargaining power. This is one reason why the richer nations of the world often obtain relatively better deals than the poorer nations in international trade negotiations. Another potential source of friction in the bargaining process comes from the possibility that the negotiations might break down due to some exogenous and uncontrollable factors. Even if the possibility of such an occurrence is small, it nevertheless may provide incentives to the players to compromise and reach an agreement. In general, a player's bargaining power is higher the less averse he or she is to risk relative to the other negotiator.

In many bargaining situations the players may have access to 'outside' options and/or 'inside' options. Aruna may be sitting on a non-negotiable (fixed) price offer on her house from another buyer; and she may also derive some 'utility' (or benefit) while she lives in it. The former is her outside option, while the latter her inside option. Should Aruna exercise her outside option, accepting the offer from another buyer, her negotiations with Mohan will be ended. In contrast, her inside option is the utility per day that she derives by living in her house while she, perhaps temporarily, disagrees with Mohan over the price at which to trade. Similarly, a married couple who are considering divorce may have outside and inside options. Their outside options are their payoffs from divorce, while their inside options are the payoffs they will enjoy from remaining married, even if their relationship has many problems. A player's bargaining power is higher the better his outside option and/or inside option.

Commitment tactics also affect the bargaining outcome. This tactic involves a negotiator taking actions prior to and/or during the negotiations that partially commit her to a particular bargaining position. For example, before a government goes to international trade negotiations it may attempt to enhance its bargaining position by making statements calculated to persuade its public that few concessions should be made. If the cost of abandoning a partial commitment of this sort is high, it enhances a player's bargaining power. Paradoxically, what may appear to be a weakness (the high cost of revoking a partial commitment) is actually a resource that enhances a bargaining position. So a government's hand is strengthened at the negotiating table because its interlocutors are aware that it will pay a high price should it renege on public commitments made to its electorate. Such tactics can, however, make bargaining difficult, if not impossible, resulting at best in costly delayed agreements. This is particularly likely in cases where two or more governments make incompatible partial commitments to their respective electorates, and their respective costs of reneging on such partial commitments are sufficiently large.

Another important determinant of the outcome of bargaining is the extent to which information about various variables (or factors) is known to all the parties in the bargaining situation. For example, the outcome of union–firm wage negotiations will typically be influenced by whether or not the current level of the firm's revenue is known to the union. A key principle is that costly delays can be mechanisms through which privately held information is credibly communicated to the uninformed party. For example, the employers may not know how tough the union is prepared to be in pressing its demands. In order to persuade the company that it is indeed tough (and so to extract a higher wage), the union may need to undertake a costly strike.

A bargaining situation is a game, in the sense that the outcome of bargaining depends on both players' bargaining strategies. Whether or not an agreement is struck, and the terms of the agreement (if one is struck), depends on both players' actions during the bargaining process. Because bargaining situations share many features with other games, the methodology of game theory has been used to develop the principles of bargaining theory.

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SEE ALSO: auctions; contracts; experimental economics; game theory; markets

BASIC NEEDS

This concept was taken up in studies of development in the 1970s, especially as a result of initiatives taken by the International Labour Office (ILO). Strictly the idea had a longer history (see, for example, Drewnowski and Scott 1966; Drewnowski 1977). The ILO was concerned about the slow rate of progress in improving conditions in the poorest countries and wanted to accelerate development programmes and anti-poverty policies alike. There was also concern that poor countries lacked the infrastucture provided by public facilities and services during the later stages of the industrialization in the twentieth century of the rich countries. Developing countries seemed to be being denied public-sector necessities that had been accepted and indeed institutionalized by their wealthier forebears. Basic needs were said to include two elements:

> Firstly, they include certain minimum requirements of a family for private consumption: adequate food, shelter and clothing, as well as certain household furniture and equipment. Second, they include essential services provided by and for the community at large, such as safe drinking water, sanitation, public transport and health, education and cultural facilities.. . .The concept of basic needs should be placed within a context of a nation's overall economic and social development. In no circumstances should it be taken to mean merely the minimum necessary for subsistence; it should be placed within a context of national independence, the dignity of individuals and peoples and their freedom to chart their destiny without hindrance.
>
> (ILO 1976: 24–5; and see also ILO 1977)

The concept of 'basic needs' played a prominent part in a succession of national plans (see, for example, Ghai *et al.* 1977 and 1979, and, for India and Kenya, Townsend 1993) and in international reports (see, for example, UNESCO 1978; and the Brandt Report 1980). In international work poverty was perceived to have been restricted too much to the means of achieving individual or family subsistence rather than the development of facilities and services for the majority of the population. Universal or collective needs had to be recognized. Emphasis was therefore placed on the minimum facilities and the essential services, like health and education, required by local communities as a whole and not only on the resources required by individuals and families for physical survival and efficiency.

This drew heavily on the 'universal' services established over many years in the industrialized countries. Health, education, housing and community services had been established with free or heavily subsidized access. But it also drew implicitly on a number of the articles of human rights agreed in various of the Declarations and Conventions on Human Rights agreed by majorities of governments in the years after the 1939–45 war. Thus, Article 24 of the Convention on the Rights of the Child recognizes the fundamental right of the child to the enjoyment of the highest attainable standard of health and to 'facilities for the treatment of illness and rehabilitation of health. States parties shall strive to ensure that no child is deprived of his or her right of access to such health care services.' Article 26 recognizes 'for every child the right to benefit from social security'. Article 28 recognizes the right of the child to education. States parties must, among other things, therefore make 'primary education compulsory and available free to all'. Any reading of the various instruments for human rights demonstrates the consciously expressed aim of many governments to establish commonly available facilities and services – not targeted or selective services. In the mid-1970s the ILO was concerned to highlight the agreements already reached in the early postwar years and to accelerate the process of action to enable developing countries to 'catch up'.

However, proponents of the concept of basic needs seem to have had great difficulty in producing acceptable criteria for the choice and precise operational definition of those basic facilities and services. The minimum *form* of those arrangements was not unambiguously specified (Streeten 1984; Hunt 1989: 268–9). Sceptics argued that the needs of populations cannot be defined adequately just by reference to the physical needs of individuals and the more obvious physical provisions and services required by local communities. The nature of minimum facilities requires exposition as detailed and persuasive as of minimum individual nutrition. The exposition of need also depends on assumptions that have to be made about the development and functioning of societies and, in particular, how the organization of markets can be reconciled with the organization of collective utilities and services. Under the influence of monetarism and neo-liberalism the insistence on establishing free trade and a larger place for markets and for private business in plans for development involved major costs for sections of the populations of developing countries. Governments found they were expected to reduce tariffs without being offered corresponding concessions by the industrial countries (Watkins 2002).

The expectations laid upon governments during the last years of the twentieth century as well as their citizens in the development reports of the international financial agencies and by the governments of the major industrial countries came to be increasingly recognized to be illogical. To give priority to the work ethic without giving equal attention to the needs of people who cannot work and cannot be expected to work – children and disabled, sick and elderly people – and to the needs of the victims of discrimination and racism, was regarded as unbalanced as it was wrong and attracted strong opposition. For example, the disproportionately greater poverty and deprivation experienced by ethnic minorities, women, the elderly, children and people with disabilities in developing countries had not been sufficiently allowed for in formulations of development. Specialized investigation of their conditions and situation was inseparable from more general analysis and judgement. The social structure of poverty, with sections or groups in the population experiencing higher risk of poverty, some of whom are more severely impoverished than others, had to be set out, so that the extent and form of service could correspondingly be precisely identified, and the costs of bringing existing facilities up to standard estimated. This illuminates cause, but also priorities in policy. The links between the two have to be recognized, so that they can be exploited for both scientific and political or social reasons. The 'basic needs paradigm', as it has been called (Hunt 1989: 77 and 265–78; but see also Streeten 1984, Cornia 1984 and Stewart 1985), gained a good deal of support, and was also linked to the need of local communities for access to their own plots of land. Under the basic needs approach the modernization of traditional farming could be advocated, using public works programmes to invest in small- to medium-scale labour-intensive methods of farming.

One of the attractions of the 'subsistence' concept to liberal theorists was its limited scope and therefore its limited implications for sociostuctural reform, which allowed poverty to be reconciled more easily with the individualism and free-market ethos underlying liberal-pluralism. On the other hand, the 'basic needs' concept appeared to go much further in accepting certain, albeit limited, preconditions for community survival and prosperity in all countries. This amounted to necessary structural reform to establish public-sector facilities and services to be used, if not entirely owned, by sovereign states and their entire populations, which simultaneously provided individual entitlement to those social provisions.

In the 1990s and early 2000s the influence of the concept of basic needs has waned. This has been due partly to the strong revival of neoclassical economics and theoretical attempts to reconcile basic needs with that perspective – for example, by emphasizing investment in 'human capital' rather than investment in the institutions of public service. But it has been due partly to the growing strength of alternative formulations, including what Amartya Sen has called the 'case for re-orienting poverty analysis from *low incomes* [and basic needs] to *insufficient basic capabilities*' (Sen 1992: 151, and see also p. 109, his emphasis). This change of direction in the priorities of development appealed to most economists at the time, but despite the elegance and overarching intentions of the 'capabilities' approach it has proved difficult to measure and has still to demonstrate enduring influence on development policies.

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SEE ALSO: deprivation and relative deprivation; poverty

BEHAVIOURAL ECONOMICS

Behavioural economics – the enrichment of economics with findings and insights from other disciplines – emerged as a major force in the discipline at the end of the twentieth century. As late as 1990, one could count on one hand the number of influential behavioural economics papers published in mainstream economics journals, yet by the early twenty-first century behavioural economics was well represented in the pages of major journals, and its practitioners were on the faculty of top economics departments, and among the recipients of honours and awards such as the John Bates Clark Award and the Nobel Prize.

In fact, behavioural economics is not a new enterprise. Adam Smith presented the psyche as the site of a struggle between our passions and our efforts to see ourselves through the rational eyes of an 'impartial spectator'. Psychological speculations were common in the economics literature well into the early stages of the neo-classical revolution, and the neo-classical paradigm itself, with its core concept of utility maximization, takes individual behaviour as the foundation of analysis. However, from Freud's 'unconscious motives' to William James's rejection of self-interest as an explanation of human behaviour, psychological theories of the time were antithetical to the postulates of utility maximization (Lewin 1996), and despite attempts to reintroduce psychology into economics by, among others, Tibor Scitovsky, George Katona and Harvey Leibenstein, the gap could not be bridged as long as critics of neo-classicism offered no compelling alternative theory.

In the early 1970s two seminal papers launched the field of *behavioural decision research*, a subfield of psychology that directly contrasts actual human behaviour with the assumptions and predictions of economics. The psychologists Tversky and Kahneman (1974) proposed that – contrary to the neo-classical assumption of human rationality, but consistent with Herb Simon's notion of bounded rationality – people use simplifying heuristics to assess probabilities and update beliefs. In certain situations, reliance on such heuristics leads to systematic biases, such as the 'gambler's fallacy', or the tendency to give undue weight to information that is vivid or easily called to mind. In the second paper, Kahneman and Tversky (1979) proposed a theory of decision-making under risk. Called 'Prospect Theory', it deviates from expected utility theory in several important respects: (1) it weighs probabilities non-linearly, overweighting small probabilities and underweighting changes in probabilities in the mid-range; (2) it assumes that people care about changes in, rather than levels of, wealth; and (3) it assumes that people dislike losses much more than they like gains, a concept known as 'loss aversion'. In 1980 a third seminal paper, by Richard Thaler, applied these ideas to economics.

In the decades following the publication of these three foundational papers, progress in behavioural economics has followed a roughly predictable curve: (1) one or more behavioural economists identify a regularity, or 'anomaly', which violates economic theory; (2) mainstream economists then attempt to show the anomaly is artefactual or argue that the regularity is not anomalous, i.e. does not violate economic theory; (3) debate continues until behavioural economists prevail and go on to study the anomaly's psychological underpinnings and boundary conditions, develop formal models of the phenomenon and use the models to derive specific implications for economics.

The cycle can be illustrated with the classic case of the 'endowment effect'. First recognized by Thaler (1980), the endowment effect identifies the tendency for people to become attached to objects in their possession, an attachment that may lead them to demand a (sometimes dramatically) higher price for selling the object than what they would have paid for it. Many economists initially doubted this effect, perhaps because it poses such a fundamental challenge to the economic assumption that preferences are invariant with respect to transient endowments, and there were many empirical attempts to discredit the effect or to account for it within traditional theory. Once the dust had cleared from the field, behavioural economists began to model the effect mathematically (e.g. Tversky and Kahneman 1991), and to investigate its psychological underpinnings. Subsequent research has shown, for example, that buyers tend to focus on the money they will relinquish, while sellers focus on the object they will receive (Carmon and Ariely 2000); that people cannot predict beforehand that they will become attached to objects after they receive them (Loewenstein and Adler 1995); and that the strength of the effect depends on how one obtained the object (e.g. whether one earned it. (Loewenstein and Issacharoff 1994)). Most recently, behavioural economists have begun to examine implications of the endowment effect for real-world phenomena such as investor behaviour and boom–bust cycles in the housing market (Genesove and Mayer 2001).

New directions

Having established what seems to be a firm foothold within the profession, behavioural economics is currently heading in several interesting directions.

First, behavioural economists have begun to look past behavioural decision research, and even beyond psychology, for new insights and findings. They have drawn, for example, on social psychology and sociology to develop models of 'social preference' that incorporate motives such as aversion to unfairness (Rabin 1993) and inequality aversion (e.g. Fehr and Schmidt 1999). An especially promising source of new findings and insights is the nascent field of cognitive (as well as affective) neuroscience.

Second, behavioural economists are designing and implementing policies that draw on behavioural insights rather than depending only upon the price mechanisms of traditional economics. For example, whereas economics traditionally relies on changes in interest rates or taxation to encourage savings behaviour, behavioural economists have recently demonstrated the efficacy of changing default contributions rates in retirement plans to promote savings (which has a large impact on savings rates, contrary to standard predictions (Madrian and Shea 2001)). Alternatively, they exploit behavioural insights into self-control by, for example, persuading people that they should commit to make savings out of *future* increments to salary (Bernartzi and Thaler 2001).

Third, having begun as a largely experimental science, behavioural economics now draws on a more diverse range of methods, including field studies and, most recently, brain imaging.

Fourth, and most controversially, behavioural economists are exploring ideas that challenge not only the core assumptions, but also the fundamental paradigm, of neo-classical economists. Virtually all of the most influential work in behavioural economics over the past decades has adopted what could be called an 'incremental' approach, adhering to the basic economic assumption of utility maximization. Emboldened by the success of their enterprise, however, and armed with new insights culled from neuroscience and other fields, many behavioural economists have begun to question whether human behaviour is in fact best modelled using the framework of maximizing utility, and have begun to explore alternative accounts. Whether such more radical variants of behavioural economics will eventually take root will depend on whether these insights can be incorporated into coherent theoretical frameworks that predict behaviour better than do the models developed by behavioural economists working within the neo-classical paradigm.

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SEE ALSO: decision-making

BENTHAM, JEREMY (1748–1832)

Jeremy Bentham was undoubtedly one of the most important and influential figures in the development of modern social science. His numerous writings are major contributions to the development of philosophy, law, government, economics, social administration and public policy, and many have become classic texts in these fields. To these subjects he brought an analytical precision and careful attention to detail that, especially in matters of legal organization and jurisprudence, had not been attempted since Aristotle, and he transformed in method and substance the way these subjects were conceived. He combined a critical rationalism and empiricism with a vision of reform and, latterly, radical reform, which gave unity and direction to what became Philosophic Radicalism. Although he was not the first philosopher to use the greatest-happiness principle as the standard of right and wrong, he is rightly remembered as the founder of modern utilitarianism. Many of Bentham's writings were never published in his lifetime or were completed by various editors. The new edition of the *Collected Works* (1968–in progress) will replace in approximately sixty-five volumes the inadequate *Works of Jeremy Bentham* (1838–43), edited by John Bowring, and will reveal for the first time the full extent and scope of Bentham's work.

Bentham is best known for some of his earliest writings. *An Introduction to the Principles of Morals and Legislation* (printed in 1780 and published in 1789) and *Of Laws in General* (not published until 1945) are important texts in legal philosophy and, together with his critique of William *Blackstone's Commentaries on the Laws of England* in the *Comment on the Commentaries* (published first in 1928) and *A Fragment on Government* (1776), represent major landmarks in the development of jurisprudence. The *Introduction to the Principles of Morals and Legislation* was also intended to serve as an introduction to a penal code, which was an important part of a lifelong ambition, never fully realized, of constructing a complete code of laws (latterly called the *Pannomion*). At this time Bentham also turned to economic questions, which were to occupy him in various forms throughout his life. His first publication was the *Defence of Usury* (1787), a critique of Adam Smith's treatment of this subject in *The Wealth of Nations*.

From the outset of his career, Bentham was devoted to reform and especially to the reform of legal institutions. His attitude towards fundamental political reform developed more slowly. Although at the time of the French Revolution he was not part of the radical movement in England, he wrote numerous manuscripts in support of democratic institutions in France. He eventually reacted strongly against the excesses of the revolution, but earlier contacts, largely developed through Lord Lansdowne, and the publication of his *Draught of a New Plan for the Organisation of the Judicial Establishment of France* (1790), led to his being made an honorary citizen of France. One important development of this period was his friendship with Etienne Dumont, the Swiss reformer and scholar, whose French versions of Bentham's works, especially the *Traités de législation, civile et pénale* (1802), were read throughout Europe and Latin America, and earned for Bentham a considerable international reputation. Following the French Revolution much of Bentham's practical energies were devoted, in conjunction with his brother Samuel, to establishing model prisons, called Panopticons, in various countries. His main effort in England failed, and this failure, though ultimately compensated by the government, was one factor leading him to take up the cause of radical political reform. The influence of James Mill was perhaps the most important factor (there were many) in his 'conversion' to radicalism in 1809–10, and the publication of *A Plan of Parliamentary Reform* in 1817 launched the Philosophic Radicals in their quest for parliamentary reform. In the 1820s, though now in his seventies, Bentham resumed the task of codification and the construction of the *Pannomion* in response to requests from governments and disciples in Spain, Portugal, Greece and Latin America. In his massive, unfinished *Constitutional Code* (1822–), he set forth a theory of representative democracy that was a grand synthesis of many of his ideas and a classic of liberal political thought.

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SEE ALSO: utilitarianism

BOAS, FRANZ (1858–1942)

Franz Boas, born in Germany in 1858, and naturalized as a US citizen in 1892, unquestionably dominated both the intellectual paradigm and institutional development of twentieth-century US anthropology until the Second World War, presiding over the emergence of anthropology as a professional discipline based on the concept of culture, and establishing a subdisciplinary scope including cultural, physical and linguistic anthropology as well as prehistoric archaeology.

In spite of his focus on professionalism in science, Boas himself was trained in (psycho)physics in his native Germany, thereby coming into contact with the folk psychology of Wundt and the anthropology of Bastian (European folk cultures) and Virchow (anthropometry). Boas's dissertation at the University of Kiel in 1881 on the colour of sea water led to concern with the inherent subjectivity of observer perception. His work in geography with Fischer initially supported environmental determinism, but his expedition to the Eskimo of Baffin Land in 1882–3 led to a more flexible argument stressing the interaction of culture and environment.

Boas settled permanently in North America only in 1887, recognizing greater opportunities there for an ambitious young Jewish scholar. In the ensuing years, he was crucially involved in the development of US anthropology in all of its early major centres. The institutional framework for the emerging Boasian anthropology was usually collaboration between a university, ensuring the academic training of professional anthropologists, and a museum to sponsor field research and publication. Boas himself settled in New York, teaching at Columbia from 1896 until 1936. He had previously served as Honorary Philologist of the Bureau of American Ethnology, which dominated Washington and government anthropology. Through F.W. Putnam of Harvard, he organized anthropology at the Chicago World's Fair of 1892 and acquired ties to archaeological work centring at Harvard. Boas's own students established programmes elsewhere, particularly Kroeber at Berkeley, Speck at Pennsylvania and Sapir in Ottawa. By about 1920, Boasian anthropology was firmly established as the dominant paradigm of the North American discipline.

Boas's theoretical position, often characterized as historical particularism, claimed that unilinear evolution was an inadequate model for the known diversity of human cultures. Human nature was defined as variable and learned tradition. Although he was extremely interested in particular historical developments, Boas argued that progress did not necessarily follow a fixed sequence, nor was it always unidirectional from simple to complex. He further parted from evolutionary theorists like E.B. Tylor in his contention that cultural learning is basically unconscious rather than rational. Boas produced particular ethnographic examples to argue the limits of theoretical generalization in anthropology, indeed in social science generally. 'Laws' comparable to those of the natural sciences were possible in principle though usually premature in practice. The ultimate generalizations of anthropology would be psychological (1911b), but Boas's own studies rarely transcended the prior level of ethnographic description. Later students, especially Margaret Mead and Ruth Benedict, elaborated these ideas in what came to be called culture and personality.

Particular histories could not be reconstructed in detail for societies without written records. In contrast, Boas stressed the historical dimensions of synchronically observable, particular cultural phenomena. For example, distribution was the primary reconstructive method to trace the diffusion (borrowing) of folklore motifs and combinations on the Northwest Coast. Elements in a single culture had diverse sources rather than a single common origin. Boas applied this same argument to linguistic work, assuming that language was a part of culture. His scepticism about distant genetic relationships of American Indian languages was consistent with his lack of training in Indo-European philology, and brought him into frequent disagreement with his former student Edward Sapir, whose linguistic work was far more sophisticated.

On the other hand, Boas made important contributions to linguistics, being the first to establish the theoretical independence of race, language and culture as classificatory variables for human diversity (1911a). He broke with the Indo-European tradition in insisting on the 'inner form' (Steinthal) of each language in its grammatical patterning, developing new analytic categories appropriate to American Indian languages.

Boas insisted on the importance of first-hand fieldwork in living cultures, and he returned again and again to the Kwakiutl and other Northwest Coast tribes. He trained native informants to record their own cultures, and collected native language texts for folklore as well as linguistics. He was particularly concerned to record the symbolic culture of these tribes, focusing on art, mythology, religion and language, and was influential in the development of the disciplines of folklore and linguistics as well as anthropology.

Boas's own research spanned the scope of anthropology in its North American definition. In archaeology, he pioneered in Mexico and the Southwest in developing research programmes to reconstruct the history of particular cultures. In physical anthropology, he demonstrated that the head-form of descendants of immigrants can change in a single generation, thereby illustrating the essential variability and plasticity of the human form. He further developed important statistical methods for human growth studies, using longitudinal studies and family-line variation to show the role of environment in modifying heredity. Moreover, Boas was dedicated to the idea that anthropology had practical consequences for society generally, arguing, particularly in response to events in Nazi Germany at the end of his life, for the essential equality of races (defined in terms of statistical variability) and the validity of each cultural pattern.

Boas is, then, more than any other individual, responsible for the characteristic form that the discipline of anthropology has taken in North America. During his long career, he and several successive generations of students stood for a particular scope, method and theory, applied largely to the study of the American Indians. The increasing diversity of North American anthropology since the Second World War still has Boasian roots.

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BODY

Since the early 1970s the human body has become a vivid presence in the human sciences and interdisciplinary cultural studies. Feminist theory, literary criticism, history, comparative religion, philosophy, sociology, psychology and anthropology are all implicated in the move towards the body. It has been suggested that this widespread interest in the body may be due to the current historical moment in which 'we are undergoing fundamental changes in how our bodies are organized and experienced' such that we are seeing 'the end of one kind of body and the beginning of another kind of body' (Martin 1992: 121).

Recent scholarship (Bynum 1989; Frank 1991) appears to support this claim. The body has been typically assumed, by scholarly and popular thought alike, to be a fixed, material entity subject to the empirical rules of biological science, and characterized by unchangeable inner necessities. The new body beginning to be identified can no longer be considered a brute fact of nature. A chorus of critical statements has declared that 'the body has a history' in that it behaves in new ways at particular historical moments, that neither our personal nor social bodies are natural because they exist only within the self-creating process of human labour, and that as the existential ground of culture the body is characterized by an essential indeterminacy and flux. With biology no longer a monolithic objectivity, the body is transformed from object to agent.

Others argue that the human body can no longer be considered a 'bounded entity' due to the destabilizing impact of social processes of commodification, fragmentation and the semiotic barrage of images of body parts (Kroker and Kroker 1987). In the milieu of late capitalism and consumer culture, the body/self is primarily a performing-self of appearance, display and impression management. Fixed life-cycle categories are blurred, and the goals of bodily self-care have changed from spiritual salvation, to enhanced health, and finally to a marketable self. The asceticism of inner-body discipline is no longer incompatible with outer-body hedonism and social mobility, but has become a means towards them.

The contemporary cultural transformation of the body is also observable in the problematizing of the boundaries of corporeality itself. These include the boundaries between the physical and non-physical, between animal and human, between animal/human and machine or automaton, and between human and gods or deities. Yet another inescapable transformation of the contemporary body is being wrought by the incredible proliferation of violence: ethnic violence, sexual violence, self-destructive violence, domestic violence and gang violence. From the dissolution of self in torture and the denaturing of the body in situations of chronic political violence, from unarticulated bodily resistance to hegemonic oppression among the impoverished and again to the madness of 'ethnic cleansing' and rape as political weapons, the body is the threatened vehicle of human being and dignity.

Across these transformations, several general approaches to the body can be identified in current literature. A premise of much writing is an 'analytic body' that invites discrete focus on perception, practice, parts, processes or products. Other literature concentrates on the 'topical body', that is, an understanding of the body in relation to specific domains of cultural activity: the body and health, the body and political domination, the body and trauma, the body and religion, the body and gender, the body and self, the body and emotion, the body and technology are examples. Finally, there is the 'multiple body', with the number of bodies dependent on how many of its aspects one cares to recognize. Douglas (1973) called attention to the 'two bodies', referring to the social and physical aspects of the body. Scheper-Hughes and Lock (1987) give us 'three bodies', including the individual body, social body and body politic. O'Neill (1985) ups the ante to 'five bodies': the world's body, the social body, the body politic, the consumer body and the medical or medicalized body.

To greater or lesser degrees these approaches study the *body* and its transformations while taking *embodiment* for granted. Emphasis on embodiment problematizes conceptual dualities between mind and body, pre-objective and objectified, subject and object, culture and biology, mental and material, culture and practice, gender and sex. There is among champions of the body in contemporary theorizing a tendency to vilify what is usually called Cartesian dualism as a kind of moral abjection. Yet Descartes in part introduced the doctrine as a methodological distinction and a way to free scientific thought from subjection to theology and strict institutional supervision by the Church. The philosopher is doubtless not entirely to blame for the ontologization of the distinction, and the way it has become embedded in our thinking (cf. Leder 1990).

The possibility that the body might be understood as a seat of subjectivity is one source of challenge to theories of culture in which mind/subject/culture are placed in contrast to body/object/biology. Much theorizing is in fact heir to the Cartesian legacy in that it privileges the mind/subject/culture set in the form of representation, whether cast in terms of rules and principles by social anthropology and sociology, signs and symbols by semiotics, text and discourse by literary studies, or knowledge and models by cognitive science. In such accounts the body is a creature of representation, as in the work of Foucault (1979, 1986), whose primary concern is to establish the discursive conditions of possibility for the body as object of domination. In contrast, the body can be comprehended as a function of being-in-the-world, as in the work of Merleau-Ponty (1962), for whom embodiment is the existential condition of possibility for culture and self. If indeed the body is in a critical historical moment, the corresponding theoretical moment is the tension between representation and being-in-the-world.

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BOURDIEU, PIERRE (1930–2002)

Pierre Bourdieu was probably the most influential French sociologist of the last third of the twentieth century. Synthesizing diverse philosophical and sociological traditions, his research practice and theory aimed at unveiling correspondences between social and mental structures, and at giving a historical account for their emergence – a research orientation that Bourdieu himself once called 'constructivist' or 'genetic structuralism'. He became internationally renowned for introducing or reactualising the concepts of 'practice', '*habitus*', 'capital' and 'field' in social science. Having graduated in philosophy, Bourdieu turned to anthropology and sociology during a stay in Algeria in the late 1950s. He taught at the Ecole des Hautes Etudes en Sciences Sociales (Paris) from 1964, and edited the interdisciplinary journal *Actes de la Recherche en Sciences Sociales* from 1975. In 1981 he obtained a professorship at the Collège de France, the most prestigious French academic institution, and became latterly one of the leading intellectuals in France.

At first sight, Bourdieu's work covers a bewildering range of subject-matter, including perceptions of time among Algerian peasants, matrimonial strategies in Southwestern France, students' performances at French schools and higher education institutions, cultural tastes, language, literature, museums, photography, sports, *haute couture*, housing, intellectuals, urban ghettos and the state, to name some central areas of investigation. There is, however, one main theme that runs through most of Bourdieu's analyses, namely the issue of unequal access to the dominant culture, and the sociopolitical preconditions and consequences of this inequality.

Bourdieu drew a significant amount of his material from three sites: the French region of Béarn, where he was born in 1930, the son of a lower civil servant; 1950s Algeria, where he did military service, conducted fieldwork and taught at university level; and (elite) higher education institutions in Paris, which he attended as a student and where he worked until his death in 2002. Albeit informed by philosophy (his original subject of study), Bourdieu's concepts were forged out of the practical engagement with and the critical analysis of these three fields.

Bourdieu examined Algeria, the Béarn and the French elite in terms of 'symbolic violence'. A universally shared system of values and perceptions privileges those who embody the dominant or legitimate culture, whereas those who have less access to material and cultural resources are devalued. What is more, the disadvantaged segments of the population (colonised Algerians, rural Béarnais, poor and uneducated Frenchmen) contribute to their own domination to the extent that they unquestioningly share the system of evaluation that works against them.

For instance, Bourdieu showed that, in the 1950s, with increasing urbanization, peasant families in the Béarn encouraged their daughters to marry townsmen, whom they considered to be a better match than young farmers, thus condemning their own sons to celibacy and depreciating life in the countryside still further. As this example indicates, Bourdieu looked at kinship (and social action in general) in a more dynamic, more actor-centred and more politicized framework than Lévi-Straussian structuralism, the dominant paradigm in 1960s French social science.

He elaborated on themes from Durkheim and Mauss (social systems of classification), Marx (class relations) and Weber (legitimacy, subjective representations), and orchestrated a fruitful dialogue between their points of view.

Bourdieu himself represented his own social thought as an attempt to overcome dualisms, and in particular the opposition between 'objectivism' and 'subjectivism'. According to Bourdieu, most social action is guided neither by objective rules, nor by subjective choices. '*Habitus*', 'strategy' and 'practical sense' are the concepts that he used to express this intermediate position. *Habitus*, a term taken from Aristotelian discourse, refers to a set of dispositions that are inculcated in childhood, persist more or less unchanged over the course of a life, and incline people to act and react in specific ways that virtually always betray their social background. Relatively unaware and without following any conscious rule, people of similar social origin share homologous attitudes, categories and perceptions, and engage in similar practices.

The sense of honour of Kabyle men, and the humble attitude of Kabyle women, in Algeria, are examples of such dispositions. The *habitus* is history materialized and embodied; it is inscribed in the Kabyle house (which is organized along an opposition between a dark, damp, lower, 'female' part and a light-filled, noble, upper part) and in the (upright, male, or stooped, female) bodies of the Kabyle. Pierre Bourdieu used the Kabyle material as an illustration in *Outline of a Theory of Practice* [1972] and *The Logic of Practice* [1980], two highly influential books that summed up his social thought in mid-career, about two decades before the comprehensive presentation of his approach in *Pascalian Meditations* [1997].

Bourdieu drew on concepts derived from economics to conceptualize social action. Agents have different kinds and amounts of 'capital'. These include material resources in the original sense of the word, but also 'social capital' (social relations, networks), 'symbolic capital' (prestige, honour) and 'cultural capital'. Cultural capital takes three forms: it is materialized as books and art works in one's possession, incorporated as a certain cultivated '*habitus*' and institutionalized in the form of diplomas and degrees.

With the help of these conceptual instruments, Bourdieu analysed the workings of the French educational system. *The Inheritors: French Students and Their Relation to Culture* [1964] and *Reproduction in Education, Society and Culture* [1970], two books co-authored with Jean-Claude Passeron, showed that students from lower social classes, being less familiar with the dominant culture, are more likely to fail in school than those with a certain social and cultural capital. Notwithstanding an appearance of neutrality, the school system reproduces and legitimizes preexisting social differences.

Generally, and with the complicity of the educational system, the dominant classes accumulate all kinds of capital. In strategies that are designed to bring about the reproduction of their social standing, they sometimes transform one kind of capital into another, for example when they invest in the education of their children. Having graduated from prestigious schools, the latter obtain leading positions in industry and the state, so converting their cultural and symbolic capital back into economic capital.

In accordance with the amount and structure of their capital, agents occupy different 'positions' in the 'social space'. In *Distinction: A Social Critique of the Judgement of Taste* [1979], Bourdieu made a fine-tuned analysis of the class visions and divisions of French society in the 1960s and 1970s. He correlated social positions with preferences for certain types of music, art and theatre, but also seemingly trivial cultural forms such as foodstuffs, table manners, sports and interior design. Such seemingly natural tastes and 'choices', Bourdieu argued, are in reality strategies that serve to differentiate oneself from (or sometimes to emulate) members of other social groups.

The social space can be seen as a juxtaposition of various 'fields', for instance the economic and the political field, or the fields of science, fine arts and literature. A field is a relatively autonomous microcosm with its own rules and logic. Agents and institutions compete with each other over a highly priced value or good that all agree is at stake, e.g. truth in the field of science, or salvation in the field of religion. Everyone employs strategies (either consciously or, more often, out of practical sense, the 'feel for the game') in order to maintain and increase their capital. The existence of a field implies struggle and a power relationship between a dominant and a dominated section within the field.

These fields have evolved historically. For instance, Bourdieu investigated the emergence of an autonomous field of the arts in the late nineteenth century. He argued that only such a historical analysis could unearth the conditions for 'understanding' art in our time, e.g. for judging artworks according to purely formal aesthetic criteria rather than appreciating their (religious, economic or decorative) function.

Bourdieu advocated a similar historization for every scientific endeavour. In an exercise of self-reflexivity or 'participant objectivation', social scientists should question their research interests and strategies in three ways: how much are these research orientations influenced first by the scholars' social origin, and, second, by their current position in the scientific field; and do they have an 'intellectualist' bias, i.e. is sufficient attention paid to the fact that most social action is practice rather than the conscious creation of meaning or application of rules? In *Homo Academicus* [1984], Bourdieu proposed an analysis of the field of higher education in France prior to and during the events of May 1968, investigating correspondences between scholars' social and symbolic capital, their career paths, research interests and outlooks; and he included his own career and research activities in this review.

In the 1990s, Bourdieu had amassed enough scientific authority (or symbolic capital) to make his voice heard outside his own field. Obviously, there was a political agenda in Bourdieu's research virtually from the beginning. By exposing the mechanisms of domination, social science should provide weapons of defence against symbolic violence, as he argued repeatedly. From the mid-1990s however, having published *The Weight of the World* [1993], an account of the daily suffering of the disadvantaged in France, Bourdieu intervened more and more often directly in public debate, speaking out against neoliberalism and in defence of the welfare state. If these statements secured him a considerable following outside the field of social science and stirred increasing media attention, they also provoked sometimes harsh criticism from political adversaries and some peers.

Social scientists have also questioned certain of Bourdieu's central concepts. The actual impact of childhood experiences on the *habitus* has come under scrutiny. What is the influence of the plural, perhaps contradictory settings in which many humans grow up? What role do media and other discourses play in the formation of *habitus*? The notion of the *field* might be extremely pertinent for the analysis of socioprofessional domains, but possibly much less so for other social realities, such as the family. Is there necessarily conflict and domination as soon as relations between human beings are established? Is it appropriate to suspect (conscious or unconscious) interests behind expressions of friendship, compassion and solidarity? As for 'capital', how can one account for the social action of those who do not possess any at all?

Many of Pierre Bourdieu's analyses are highly pertinent criticisms of French society, where the republican ideology of egalitarianism and meritocracy often clashes with a reality of racism, class contempt and relative social immobility. His writings have had a decisive impact on the sociological study of culture and education, as well as on the anthropology of Algeria. Bourdieu's social thought offers suggestions about how to overcome theoretical impasses associated with dichotomies such as the social and the individual, free will and determinism, body and mind, structure and agency. One of the most important legacies of his work is his own *modus operandi*, i.e. the ethos of a social science that crosses boundaries between disciplines such as sociology, anthropology, philosophy and history; between different national intellectual traditions; and between the purely academic exchange of ideas and public debate.

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SEE ALSO: habitus; sociology: new theoretical developments

BRAUDEL, FERNAND (1902–85)

Fernand Braudel was one of the most influential historians of the twentieth century. The third of the founding fathers of the so-called Annales School of French historians, he followed the lead of such pre-Second World War historians as Lucien Fèbvre and Marc Bloch in seeking to revitalize the study of history in the light of the methods and concerns of the social sciences. However, Braudel went considerably further along this path than his predecessors, developing an entirely new concept of, and approach to, historical studies. In a more systematic way than his precursors, Braudel sought to emancipate history from its traditional division into political, economic and cultural history, and to achieve a 'total' history of society. The objective was to integrate all aspects of humankind's past, placing the chief emphasis on the changing environment and lifestyle of the common person and of society as a whole. Inevitably, the new approach involved a marked de-emphasizing and distancing from the political and constitutional history, which had always been the central preoccupation of historians and which Braudel and his followers term '*histoire événementielle*'.

Braudel's most famous and important work, on the Mediterranean world in the age of Philip II, was first published in 1949 and was greeted with widespread and eventually almost universal acclaim. A revised and considerably expanded second edition was published in 1966. In this vast undertaking, Braudel transcended all political and cultural borders, as he did in all historical practice and procedure. He sought to reveal the immense scope and implications of the decline of Mediterranean society in the sixteenth century, achieving a majestic and often elegant synthesis of economic, demographic, cultural and political data and interpretation. It was by no means Braudel's intention to disregard political phenomena; rather he wished to tackle these in a new way, within the context of long- and medium-term socioeconomic trends. Thus one of his principal objectives was to throw new light on the shift in the policy concerns of Philip II of Spain away from the Mediterranean and towards the Atlantic, a change in the direction of Spanish policy-making that dates from the 1580s.

Basic to Braudel's approach was his novel categorization of history into simultaneous processes proceeding on different levels at quite different speeds. He envisaged these various trends as taking place on three main levels and, on occasion, compared the processes of historical change to an edifice consisting of three storeys. On the lowest level, he placed the slow, long-term changes in humankind's agrarian, maritime and demographic environment. On the middle level, Braudel placed the medium-term economic and cultural shifts that take place over one or two centuries rather than millennia. Finally, on his uppermost storey, he located all short-term fluctuations and 'events' in the traditional sense.

This novel approach to history is further developed in Braudel's second major work, an ambitious trilogy entitled *Civilisation matérielle et capitalisme* (1967–79) (English trans. 1973–82; *Material Civilization and Capitalism*), which deals with the evolution of the world economy and of society generally from the end of the Middle Ages to the Industrial Revolution. Despite Braudel's insistence on material factors as the determinants of social change, and his readiness to borrow concepts from Marx, including the term capitalism, which figures prominently in his later work, Braudel's system, like the work of the Annales School more generally, is in essence quite outside the Marxist tradition in that it allocates no central role to class conflict. In the view of some scholars, certain weaknesses evident in the earlier work are much more pronounced in the later study. A less secure grasp of detail, frequent errors both of fact and interpretation of data, and, generally, much less convincing evaluations detract considerably from the value of the later work. Certain historians now also see serious defects in Braudel's overall approach, running through his entire *œuvre* that, besides the two major works, includes a number of noteworthy short books and essays. In particular it is felt that Braudel's method of handling the interaction between socioeconomic and political history is unconvincing and unsatisfactory. Thus, his radical de-emphasizing of political and military power, and the impact of 'events' on socioeconomic development, gives rise in his writing to numerous, often major, distortions.

The influence of Braudel's ideas and the extent to which they have been adopted as the modern approach to historical studies varies from country to country, but has been pervasive in several European and many Latin American countries as well as in North America, but is less so now. It has been repeatedly asserted that he was 'indisputably the greatest of living historians', but it must also be said that a tendency towards uncritical adulation of his work has become fashionable in many quarters on both sides of the Atlantic. Some history departments in universities, and a number of collaborative historical research projects and publications, have professed Braudel and his approach as the guiding principle directing their studies, though this tendency, predictably perhaps, has much receded since the 1980s.

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Further reading

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SEE ALSO: Annales School; social history

BUREAUCRACY

The word bureaucracy is used any number of ways in ordinary discourse, as well as in the social sciences. In everyday discussions bureaucracy is usually a term of derision, implying inefficiency, buck-passing, shirking and a host of other behaviours that cast doubt on the ability of bureaucracies to provide services to clients. Although many of these characteristics may exist in large organizations in either the public or private sectors, bureaucracy is usually used to describe the permanent administration in government. Further, in addition to the other dysfunctions associated with large, formal organizations, these organizations in the public sector are assumed to attempt to promote the unjustified expansion of their own budgets (see Blais and Dion 1992), and to advance their own conceptions of policy against those of their nominal political masters.