A

Above-average effect: a cognitive bias, also known as the illusory superiority bias, that leads people to overestimate their positive qualities and underestimate their defects. Evidence of the above-average effect is quite robust with respect to common abilities and tasks (e.g., driving, parenting, managerial skills) but weaker with respect to unusual tasks. An above-average effect may distort one's perception of difficulties. Behavioral economists classify the above-average effect under the category of "positive illusions" (i.e., unrealistically favorable perceptions about one's self) (Taylor and Brown, 1988). As with other positive illusions, such as unrealistic optimism and illusion of control bias, the above-average effect may undermine estimations of risk and lead to a distortion of incentives. See also ***optimism bias***, ***illusion of control bias***, and ***Hurwick optimism–pessimism index***.

Absolute advantage: a person or a firm is said to have an absolute advantage when it can produce a good or service at a lower cost than its competitors (or more quantity at the same cost). The term "absolute advantage" may be a useful descriptor when making comparisons between firms; however, being the best at producing something and having an absolute advantage over other producers does not mean that undertaking such activity is the best way to use one's productive capacity. The criterion of absolute advantage fails to take into account the opportunity cost of using one's productive capacity in a particular way. From a social efficiency perspective, the allocation of productive capacity and specialization should be determined by the concept of comparative advantage, not absolute advantage, in order to maximize all possible gains from trade. See also ***comparative advantage***.

Absorptive capacity: a term used to describe the rate of learning and evaluation of outside knowledge. Absorptive capacity is determined by several factors, such as the existence of economies (or diseconomies) of scale and/or scope in the learning and processing of information, raising issues of optimal timing and sequence in the attainment of information (Cohen and Levinthal, 1990). The concept is used in both education policy and business contexts to determine the optimal pace of learning and the optimal size of knowledge-sharing institutions and firms.

Accounting profits versus economic profits: accountants and economists both define a firm's "profit" as its revenues minus costs. The difference between accounting profits and economic profits is that accounting profits count only

explicit costs, ignoring implicit costs (i.e., opportunity costs), while economic profits count both explicit and implicit costs. Consequently, economic profits will tend to be represented by a smaller figure than accounting costs, although in some idiosyncratic cases, implicit benefits may offset implicit costs, in which case the measure of economic profit may be larger than accounting profit. See also **producer profit**, **producer surplus**, and **opportunity cost**.

Acoustic separation: a theoretical ideal solution to the conflict between prescriptive and reactive functions of legal systems. Dan-Cohen (1984) describes the analytical distinction between conduct rules (rules aimed at guiding future behavior) and decision rules (rules aimed at judging past behavior). Dan-Cohen observes that conduct rules and decision rules are often at cross-purposes, and he uses this tension to motivate the following thought experiment. Imagine a "world in which only judges and officials know the content of the decision rules and only the general public knows the content of the conduct rules." In order to sustain the separation between conduct rules and decision rules, the two groups – the general public and judges – must live in separate, insulated worlds. Dan-Cohen terms this condition "acoustic separation," and argues that the conflicting functions (i.e., prescriptive versus reactive) of a legal system would be reconciled in such a world. Although legal systems of the ancient past occasionally effected a selective transmission of legal information that incidentally resembled acoustic separation, the implementation of selective transmission would obviously raise issues of legitimacy in contemporary legal systems, as well as problems of credibility and time consistency in policymaking. Nevertheless, the concept of acoustic separation is frequently mentioned in the literature to highlight some inescapable moral dilemmas that arise when the forward-looking and the backward-looking functions of the law are in conflict with one another. See also **conduct rules versus decision rules**, **credibility**, **dynamic inconsistency**, and **ex ante versus ex post**.

Activity level externalities: in potentially tortious situations, parties impose precautionary care costs upon each other. When parties increase their activity levels, they increase the cost of (non-durable) precautionary care for other parties. The residual bearers of liability do not take into account such externalities. See also **Shavell's activity level theorem** and **precaution externalities**.

Activity level versus care level: several factors affect the likelihood of an accident, including the quality and quantity of the precautions taken by tortfeasors and victims and the intensity and duration of tortfeasors' and victims' activities. Law and economics scholars group these factors under the headings of "care levels" and "activity levels." Polinsky (1980) and Shavell (1980b) independently point out the relevance of this distinction. The care level refers to the observable precautions used by courts to ascertain negligence, and indicates the extent of parties' precautionary efforts in carrying out their activities (e.g., in the case of automobiles: vehicle speed, use of headlights at night, observing road signals).

The activity level refers to the other factors that are not taken into account by courts to ascertain negligence, and indicates the intensity and duration of the parties' activities (e.g., how many miles did the tortfeasor drive, how often did the victim cross the intersection?). Dari-Mattiacci and Parisi (2005b) observe that some precautions are non-observable ex post. Investment in non-observable precautions may reduce the probability of an accident, but would not reduce the likelihood of being found negligent if an accident did occur. For this reason, the incentives to invest in non-observable precautions generally follow the activity level incentives of the parties. The distinction between care level and activity level becomes relevant when the criterion of negligence is used to establish liability. As pointed out by Shavell (1980b), negligence liability introduces a dichotomy between care-type and activity-type precaution investments. When establishing negligence, courts do not look at the "quantity" (activity level) of the parties' behavior, but only at their "quality" (care level). The distinction between care and activity level is irrelevant in regimes of strict liability and no liability. Activity level incentives (and the incentives to invest in non-observable precautions) are determined by the allocation of the residual liability (i.e., only the party who bears the cost of the accident in equilibrium has incentives to reduce his or her activity level and invest in non-observable precautions). See also **activity level externalities**, **precaution externalities**, **non-observable precautions**, and **Shavell's activity level theorem**.

Adaptive expectations: the impact of a proposed policy change depends on how consumers respond to it. The principle of adaptive expectations holds that individuals base expectations about future events on past trends and are slow to revise their expectations when trends change. The adaptive expectations model is based on the idea that individuals develop forecasts about the future value of a variable on the basis of past actual values adjusted for their own past expectations. Specifically, the expected future value of a variable is worked out by calculating a weighted average of past expected values and past actual value. Adaptive expectations models are thus based on the notion that economic actors adapt their future expectations in the light of their recent experience. The extent to which expectations change in the model depends on how individuals weight past expectations and actual experiences. Analytically, adaptive expectations are represented by the equation

$$p^e = p^e_{-1} + \lambda\left(p - p^e_{-1}\right)$$

where p^e represents the current expected value of a variable; p^e_{-1} represents the previous year's expected value; $(p - p^e_{-1})$ represents the difference between last year's expectations and the actual value; and λ designates the "lag" effect – how quickly individuals adjust to new information. According to adaptive expectations, individuals who have had a given experience in the past tend to expect a similar experience in the future. The principle of adaptive expectations, also

known as error learning because of the quantification of past error, is distinguishable from rational expectations, a notion that assumes that agents use all and only current market data to ascertain future performance. See also ***rational expectations***.

Adjustment dynamics: a form of dynamic analysis whereby models are subjected to changes in parameters so that the process of convergence to a new equilibrium can be studied. See also ***comparative dynamics*** and ***dynamic models***.

Adverse selection: adverse selection and moral hazard are the two categories of circumstances involving asymmetric information. What distinguishes the two is that, whereas the term "moral hazard" refers to ex post informational asymmetry, the term "adverse selection" refers to ex ante informational asymmetry. The adverse selection problem was first analyzed by Nobel laureate George Akerlof, in his 1970 paper entitled "The market for 'lemons,'" in which he observes that the relationship between sellers and buyers of used cars suffers from an ex ante information asymmetry, theoretically leading to market failure. Consequently, adverse selection is sometimes also referred to as the "lemons problem." Adverse selection has three elements: (a) there is a random variation in the quality of a good; (b) parties have asymmetric information concerning the actual quality of a specific item; and (c) sellers of poor-quality items are more willing to sell at lower prices than sellers of high-quality items. Often cited examples of adverse selection include insurance, labor markets, and used car markets. In these cases, a party possesses information about quality that the other contracting party cannot easily verify. In the lemons example, sellers of used cars are in a better position to know about the defects of their car than potential buyers. Consequently, owners of lower-quality cars would fill the market, since they would be eager to sell their cars at market price, whereas owners of higher-quality used cars would be selling at a loss. Therefore, the quality distribution of cars of a given model/year offered for sale would not be representative of the overall distribution of the quality of cars of that model/year. If buyers took such adverse selection into account, causing the market value for cars of that model/year to decline, the problem would simply be pushed back, since only owners of cars that are worth less than the reduced offer price would be willing to sell. Indeed, one can imagine the process repeating until the price were reduced to such an extent that only the single worst car on the market would be offered. This unraveling would entail the total collapse of the used car market. Parties respond to adverse selection problems by developing tools for screening and signaling. For example, sellers may offer warranties for hidden defects in their products. By offering a warranty, sellers credibly reveal private information about the quality of their product (signaling). This induces a separating equilibrium, whereby sellers of high-quality goods offer a warranty that sellers of a low-quality good would be unwilling to match. Likewise, commercial records of car breakage and car theft may reduce the cost of information for prospective buyers (screening). These signaling and screening devices facilitate the matching of sellers of

low-quality goods with those buyers who are less sensitive to defects, and sellers of high-quality goods with more sensitive or demanding buyers. Legal rules also play an important role in preventing/correcting adverse selection problems. For example, some legal rules create incentives for the voluntary disclosure of private information (e.g., penalty default rules). In other situations, legal systems create affirmative duties to disclose private information that may negatively affect the value of the transaction to the other contracting party (e.g., disclosure of hidden defects, disclosure of prior employment record, disclosure of preexisting health conditions). The question of when to impose legal rules and when to allow market forces to mitigate the effects of adverse selection has been the subject of much scholarly debate. See also ***asymmetric information***, ***reverse adverse selection***, and ***inverse adverse selection***.

Agency problems: also known as principal–agent problems, these can be found in any relationship involving asymmetric information in which one party's conduct can produce effects on another party. Game theorists and mechanism design scholars were among the first to study agency problems systematically. The findings and the terminology of this literature have had a pervasive influence in law and economics. In a typical agency relationship, one individual (the "principal") retains another individual (the "agent") to carry out activities on his or her behalf (e.g., the owner of a company retains an individual to manage his business interest). Ab initio, principals and agents generally have misaligned incentives (e.g., a company owner wants to maximize the profits of his or her company, while the manager cares about his or her leisure time and compensation). Information is asymmetric, and the principal cannot perfectly monitor the activity of his or her agent. Hence, the agent may fail to act in the principal's best interest. The agency problem (or principal–agent problem) is to motivate the agent to adopt the interests of the principal as his or her own. Agency problems can be found in a number of situations, such as in most employer–employee relationships or in the delegation of legislative authority to bureaucratic agencies. In employment contracts, individual contracts solve the agency problem by making employee compensation a function of performance, through a variety of mechanisms, such as profit sharing, efficiency wage, discretionary bonuses, options, commissions, or contingency fees. Empirical studies have found that productivity improves when compensation is conditioned on performance. However, pay-for-performance schemes increase free-riding incentives in the jobs involving team production, characterized by large positive externalities and low returns to the individual. See also ***adverse selection***, ***moral hazard***, ***free-riding***, ***screening***, and ***signaling***.

Agenda setting: policymakers face many competing challenges and have limited resources with which to address these challenges. The term "agenda setting" is generally used to describe the process by which policymakers decide the sequence of decisions and policy issues on which to focus. Kingdon (1995) distinguishes three stages that are relevant to the agenda-setting process: (a) the

problem identification stage, (b) the policy formulation stage, and (c) the political deliberation stage. Public choice and social choice theorists have studied the relevance of agenda setting to determining the outcome of collective decision-making processes. They have found that the sequence of decisions does indeed often affect outcomes. For example, when collective decisions are subject to cyclicality, the setting of the voting agenda can be strategically manipulated to game the desired outcome. Empirical and theoretical literature in public choice theory further supports the proposition that agenda setters have substantial power in policymaking. See also *policy window*.

Aggregate misperception: see *pluralistic ignorance*.

Aggregate surplus: in a voluntary exchange, both sellers (producers) and buyers (consumers) benefit from a transaction. The sum of the buyers' and sellers' benefits is the aggregate surplus. In an exchange, the aggregate surplus can be easily computed as the difference between the buyer's willingness to pay and the seller's willingness to accept. The concept of aggregate surplus is important in law and economics, in which economic and competition policies are designed to maximize aggregate surplus. See also *consumer surplus* and *producer surplus*.

Aggregation problem: the need to make comparative evaluations between different rules motivates much of law and economics. Consequently, an important methodological problem in law and economics concerns the choice of criteria for carrying out such comparative analysis. In practical terms, this problem concerns the method of aggregation of individual preferences into social preferences. This problem is not unique to law and economics. It is part of a much larger methodological debate in economic philosophy and welfare economics. As early as the late nineteenth century Edgeworth (1881: 7–8) was stating the moral dilemma of social welfare analysis, observing that a moral calculus should proceed with a comparative evaluation of "the happiness of one person with the happiness of another . . . Such comparison can no longer be shirked, if there is to be any systematic morality at all." The problem obviously arises from the fact that economists do not have any reliable method for measuring individuals' utility, let alone make interpersonal comparisons of utility (Klick and Parisi, 2005). See also *Kaldor–Hicks criterion*, *Nash criterion of welfare*, *capability approach*, and *Rawlsian maximin*.

Akerlof, George Arthur (1940–): an American economist whose work has been particularly influential in the field of law and economics. He is best known for his work on markets characterized by asymmetric information. He received the Nobel Prize in economics in 2001 (shared with Michael Spence and Joseph Stiglitz) for his 1970 paper "The market for 'lemons': quality uncertainty and the market mechanism," in which he identifies the reasons for the severe problems that often afflict markets characterized by information asymmetries. Akerlof was born in New Haven, Connecticut, on June 17, 1940, and received his undergraduate degree from Yale University in 1960. He went on to receive his Ph.D. from

the Massachusetts Institute of Technology in 1966. Together, he and his wife, Janet Yellen, vice chairman of the Federal Reserve System, wrote *Efficiency Wage Models of the Labor Market* (1986), in which they propose rationales for the efficiency wage hypothesis, which postulates that employers will pay above the market-clearing wage for labor for various reasons. Akerlof has also proposed, in his 1993 paper with Paul Romer "Looting: the economic underworld of bankruptcy for profit," that there may be incentives for the managers and owners of corporations to "loot" their companies rather than help them flourish, and that there should be norms embedded in macroeconomics for how corporations "should" behave in order to prevent such outcomes. In addition to his other contributions to the field of economics, Akerlof, along with Rachel Kranton, has been influential in developing the field of identity economics, which proposes that social identities and norms are as influential as monetary incentives when it comes to individual economic decision-making. See also *asymmetric information* and *adverse selection*.

ALACDE: Latin American and Iberian Law and Economics Association (originally called the Latin American and Caribbean Law and Economics Association). Founded in 1995 under the leadership of a group of scholars led by Andrés Roemer, Edgardo Buscaglia, and Robert Cooter, the association was created to promote awareness, advance, and develop legal research employing the tools of economic analysis, and to keep law schools in Latin America, the Caribbean, and Iberia abreast of the latest findings and groundbreaking work in the field. The first meeting was held in Mexico City in October 1995, organized by Andrés Roemer and Miguel de la Madrid. Since then the annual meeting has been held on a rotating basis. Presidents pro tempore of the association are elected annually, and have included Avelino Porto and Edgardo Buscaglia (1996), Julia Barragon (1997), Valeria Merino (1998), Emilio José Archila Peñalosa (1999), Rafael Mery and Ricardo Predes (2002), Alfredo Bullard (2004), Robert Cooter (2005), Juan Vicente Sola and Horacio Spector (2006), Flavia Santinoni Vera (2007), Juan Javier del Granado (2008), Pablo Salvador (2009), Rafal Barraza (2010), and Alfredo Bullard (2011). In addition to its annual meetings, the association sponsors the translation of law and economics literature into Spanish and Portuguese. Thanks to funding provided by the Microsoft Corporation, the association awards an annual ALACDE Award for Best Research in Law and Economics for both junior and senior scholars. Since 2006 the association has published the *Latin American Journal of Law and Economics*. See also *ALEA*, *CLEA*, *EALE*, and *ASLEA*.

ALEA: American Law and Economics Association. Founded in 1991 under the initiative of Henry Manne, who was then dean of George Mason University Law School in Fairfax, Virginia, the association was created to respond to the needs of the growing community of law and economics scholars and to promote and encourage research in the field. The John M. Olin Foundation provided initial funding for the development of the association. ALEA

publishes the biannual journal *American Law and Economics Review*. The first organizational meeting occurred in January of 1990 at George Mason University and was attended by Robert Cooter (Berkeley), Charles Goetz (Virginia), Victor Goldberg (Columbia), A. Mitchell Polinsky (Stanford), George Priest (Yale), Steven Shavell (Harvard), Michael Trebilcock (Toronto), Thomas Ulen (Illinois), and Richard Zerbe (Washington). The first annual meeting of the association was held on May 24 and 25, 1991, at the University of Illinois in Champaign-Urbana, and was attended by 200 scholars. The meeting included a plenary session honoring Guido Calabresi (Yale), Ronald Coase (Chicago), Henry Manne (George Mason), and Richard Posner (Chicago) as the founding fathers of law and economics. The association has subsequently held an annual meeting on a rotating basis. The presidents of the association are elected annually: George Priest (1991), William Landes (1992), A. Mitchell Polinsky (1993), Robert Cooter (1994), Richard Posner (1995), Alan Schwartz (1996), Oliver Williamson (1997), Roberta Romano (1998), Lewis Kornhauser (1999), Robert Ellickson (2000), Steven Shavell (2001), Michael Trebilcock (2002), Frank Easterbrook (2003), Henry Hansmann (2004), Daniel Rubinfeld (2005), Oliver Hart (2006), Lucian Bebchuk (2007), Michelle White (2008), Orley Ashenfelter (2009), Louis Kaplow (2010), John Donohue (2011), Jennifer Reinganum (2012), and Douglas Baird (2013). See also ***American Law and Economics Review***, ***ASLEA***, ***EALE***, ***CLEA***, and ***ALACDE***.

Allocative efficiency: resources and legal entitlements are allocated with different mechanisms, ranging from equal share distributions, first-come first-serve allocations, random initial assignments, competitive bidding and auctions, litigation contests, etc. The concept of allocative efficiency is used to evaluate how alternative mechanisms allocate resources and entitlements efficiently (e.g., to the highest valuing user, to the most productive firm, etc.). Although Coase (1959, 1960) shows that inefficient initial allocations can be corrected through ex post (Coasean) bargaining, when ex post reallocations are costly or prohibited the efficiency of the initial allocation becomes important. See also ***Coasean bargaining*** and ***efficiency***.

Altering rules: legal systems determine the ways in which private parties can modify default rules. The modification of default rules can be made more or less costly by the law, effectively turning the contractible rules versus mandatory rules divide into a continuum. McDonnell (2007) and Ayres (2012) refer to the rules governing the modification of default rules as "altering rules." In some cases, altering rules aim at reducing the relative cost of opting out by encouraging parties to negotiate explicitly and penalizing parties that fail to do so (penalty default rules). In other cases, altering rules take a more neutral stand and leave parties free to modify default rules without altering the relative cost of an opt-out (majoritarian default rules). In yet other cases, altering rules allow parties to raise the opt-out costs, creating some "stickiness" in the modification of default

rules (sticky default rules). See also ***sticky default rules***, ***penalty default rules***, and ***default rules***.

Alternative hypothesis: see ***null versus alternative hypothesis***.

Alternative versus joint care: in a bilateral accident, the probability and severity of an accident depend on both the victim's and the injurer's behavior. Law and economics scholars further distinguish between alternative care and joint care situations. In alternative care situations, the parties' care efforts are substitutable: one party's untaken precautions can effectively be overcome by an increase in the other party's precautions. At the limit, one party's care may be sufficient to avoid an accident. In joint care cases, the parties' care efforts are complementary to one another: one party's untaken precautions cannot be easily overcome by the other party's care. In this latter situation, it is desirable for both parties to take precautions in order to avoid an accident. In economic models, the sign of the cross-partial derivative describes the relationship between the two parties' efforts of care. Using the conventional notation, where x and y represent the care levels of the two parties and $p(x, y)$ represents the probability of an accident, alternative care cases will be denoted by a negative cross-partial derivative, $\partial^2 p / \partial x \partial y < 0$, while joint care cases will be denoted by a positive cross-partial derivative, $\partial^2 p / \partial x \partial y > 0$. See also ***bilateral accident***, ***double-edged torts***, and ***hybrid precautions***.

American Law and Economics Association: see ***ALEA***.

American Law and Economics Review: established in 1999 as the official journal of the American Law and Economics Association. Orley Ashenfelter and Richard Posner served as the editors of this review from its founding until 2008, followed by John Donohue (2009–present) and Steven Shavell (2009–present). The review is one of the three journals in the field of law and economics published by Oxford University Press (together with the *Journal of Law, Economics, and Organization* and the *Journal of Competition Law and Economics*). See also ***law and economics journals*** and ***ALEA***.

American rule: see ***fee shifting***.

Anchoring bias: anchoring is a cognitive bias that leads people to assess probabilities starting with an implicit reference point and then to adjust it to form their estimate. According to the anchoring heuristic, people begin with an initial approximation of the probability at which they anchor, and then make adjustments to the anchor on the basis of additional information. The anchoring bias was identified by Tversky and Kahneman (1974). One of their experimental studies asked people to estimate the percentage of African nations represented in the United Nations. Researchers asked one group of subjects whether the percentage was more or less than 10 percent and the other group whether the percentage was more or less than 65 percent. Subjects in the first group responded on average

with lower values (25 percent) than the second group (45 percent). Experimental evidence suggests that the anchoring bias affects economic estimates such as fair prices and bargaining opportunities. See also ***behavioral law and economics***, ***availability bias***, ***representativeness bias***, ***hindsight bias***, ***overcorrection***, and ***serial position effect***.

Anchoring heuristics: see ***anchoring bias***.

Anti-coordination games: see ***chicken game***.

Anti-insurance: according to economic analysis, one of the objectives of imposing liability in contracts is to create optimal performance and reliance incentives for the contracting parties. By linking the promisee's compensation to the promisor's liability, standard damage provisions in contracts do not always create optimal incentives for the contracting parties. Cooter and Porat (2002) have developed the anti-insurance concept as an alternative remedy that would incentivize efficient behavior on the part of both the promisor and the promisee. In an anti-insurance system, the promisor would pay a third party in the event of a breach and the third party would not pay the promisee any damages. However, for the right to receive damages from the promisor, the third party would pay both the promisor and the promisee some smaller amount before either performance or non-performance. While traditional damages encourage the promisee to rely on the promise inefficiently and, in some cases, even to act recklessly, the promisee would have no guaranteed benefits under an anti-insurance system. While he or she would have confidence that the promisor would perform, since the promisor would need to pay damages to the third party in the event of breach, he or she would also know that he or she would receive no damages if the promisor breached. This would solve the inefficiency problems present in a traditional damages regime and force both the promisor and the promisee to internalize the risk of breach. Cooter and Porat (2002) illustrate this concept using the example of a warranty for a transmission on a new car. Under a warranty, the manufacturer would put in the optimal amount of effort to produce high-quality transmissions for each consumer. However, individual consumers, in the light of the warranty, might abuse or overwork their transmissions. Manufacturers could include an anti-insurance provision in their contracts to incentivize consumers to take precaution when using their cars, because they would know they would not receive full damages for a problem with the transmission. Instead, they would receive only what the third-party anti-insurer paid them before any problems might arise with the transmission. The logic of the anti-insurance idea is similar to the logic of "decoupling" in tort law, inasmuch as both methods disentangle (victims' and promisees') compensation from (tortfeasors' and promisors') liability. See also ***decoupling***, ***residual decoupling***, and ***contributory and comparative non-negligence***.

Anti-property: the concept of anti-property rights was introduced in the law and economics literature by Bell and Parchomovsky (2003). Anti-property rights are