

Rand's third argument is more complex, and it leads to a discussion of human nature and motivation. It asserts that ethical egoism is the only psychologically realistic ethical theory. By nature, human beings are exclusively self-seeking; our sole motives are to benefit ourselves. More fully, *psychological egoism* is true: all people are always and only motivated by what they believe is good for them in some respect. Psychological egoism is a theory about psychology, about what actually motivates human beings, whereas ethical egoism is a statement about how they ought to act. But if psychological egoism is true, ethical egoism becomes the only plausible ethical theory. If by nature we can only care about ourselves, we should at least adopt an enlightened view about how to promote our well-being.

Is psychological egoism true? Is the only thing an engineer or anyone else cares about, ultimately, their own well-being? Psychological egoism flies in the face of common sense, which discerns motives of human decency, compassion, and justice. It is difficult to refute psychological egoism directly, because it radically reinterprets both common sense and experimental data. But we can show that most arguments for psychological egoism are based on seductive and simple confusions. Here are four such arguments for psychological egoism.³⁵

Argument 1. We always act on our own desires; therefore, we always and only seek something for ourselves, namely the satisfaction of our desires.

—In reply, the premise is true: we always act on our own desires. By definition, *my* actions are motivated by *my* desires together with *my* beliefs about how to satisfy those desires. But the conclusion does not follow. There are many different kinds of desires, depending on what the desire is for—the object of the desire. When we desire goods for ourselves, we are self-seeking; but when we desire goods for other people (for their sake), we are altruistic. The mere fact that in both instances we act on our own desires does nothing to support psychological egoism.

Argument 2. People always seek pleasures; therefore they always and only seek something for themselves, namely their pleasures.

—In reply, there are different sources of pleasures. Taking pleasure in seeking and getting a good solely for oneself is different from taking pleasure in helping others.

Argument 3. We can always imagine there is an ulterior, exclusively self-seeking motive present whenever a person helps someone else; therefore people always and only seek goods for themselves.

—In reply, there is a difference between imagination and reality. We can also imagine that people who help others have an ulterior desire to eat ants, but it does not follow that altruists are anteaters!

Argument 4. When we look closely, we invariably discover an element of self-interest in any given action; therefore people are solely motivated by self-interest.

—In reply, there is an enormous difference between the presence of "an element" of self-interest (asserted in the premise) and inferring the element is the only motive (asserted in the conclusion). Many actions have multiple motives, with an element of self-interest mixed in with concern for others.

We conclude that there are no sound reasons for believing psychological egoism, nor for believing ethical egoism. In preparation for discussing the second version of self-realization ethics, however, let us comment more fully on the question of what motivates engineers.

3.4.2 Motives of Engineers

Having emphasized that self-seeking is not the only human motive, we now grant that it is a very strong motive. Indeed, it is probably the strongest motive in most of us most of the time. Following Gregory Kavka, let us dub this commonsense view *predominant egoism*: the strongest desire for most people most of the time is self-seeking.³⁶ Predominant egoism is plausible and open to scientific confirmation. It is also plausible to believe that most acts of helping and service to others involve *mixed motives*, that is, a combination of self-concern and concern for others.

Unlike psychological egoism, predominant egoism acknowledges human capacities for love, friendship, and community involvement. It also acknowledges engineers' capacities for genuinely caring about the public safety, health, and welfare. Engineers are strongly motivated by self-interest, but they are also capable of responding to moral reasons in their own right, as well as additional motives concerned with the particular nature of their work. Their motives are as many and varied as the existential pleasures cited by Samuel Florman.

As just one illustration, consider the motives of Jack Kilby in inventing the microchip.³⁷ The invention has had momentous importance in making possible the development of today's powerful computers, so much so that in 2000 Kilby was awarded a Nobel Prize—a rare event for an engineer, since Nobel Prizes are usually given for fundamental contributions to science, not engineering.³⁸ In retrospect, the idea behind the microchip seems simple, as do many creative breakthroughs. During the 1950s the miniaturization of transistors was being pursued at a relentless pace, but it was clear there would soon be a limit to the vast number of minute components that could be wired together. Kilby was well aware of the problem and sensed the need for a fundamentally new approach. In July 1958, only a few weeks after starting a new job at Texas Instruments, he discovered the solution: make all parts of the circuit out of one material integrated on a piece of silicon, thereby removing the need to wire together miniature components.

In making his discovery, Kilby was not pursuing a grand humanitarian intention to provide humanity with the remarkable goods the microchip would make possible, although it is true he was known for his everyday kindness to colleagues. When he was about to give his Nobel lecture, he was introduced as having made the invention that "launched the global digital revolution, making possible calculators, computers, digital cameras, pacemakers, the Internet, etc., etc."³⁹ In response, he told a story borrowed from another Nobel laureate: "When I hear that kind of thing, it reminds me of what the beaver told the rabbit as they stood at the base of Hoover Dam: 'No, I didn't build it myself, but it's based on an idea of mine.'"

Was Kilby merely seeking money, power, fame, and other rewards just for himself? No, although these things mattered to him. As one biographer suggests, "we see nothing extraordinary in Jack Kilby's private ambition or in his aim to find personal fulfillment through professional achievement. In that regard he was the same as the rest of us: We all pick professions with a mind to fulfilling ourselves."⁴⁰ Primarily, Kilby was pursuing interests he had developed years earlier in how to solve technical problems in engineering. In this regard he was exceptional only in his passion for engineering work. Like many creative individuals, he was persistent to the point of being driven, and he found great joy in making discoveries. But even saying this by itself would be misleading. The accurate observation is that he had multiple motives, including motives to advance technology, to be compensated for his work, and to do some good for others.

Building on this observation, we might sort the motives of professionals into three categories: proficiency, compensation, and moral.

Proficiency motives, and their associated values, center on excellence in meeting the technical standards of a profession, together with related aesthetic values of beauty. The undergraduate curriculum for engineering is generally acknowledged to be more rigorous and difficult than the majority of academic disciplines. We might guess that students are attracted to engineering in part because of the challenge it offers to intelligent people. Do empirical studies back up this somewhat flattering portrayal? To a significant extent, yes. Typically, students are motivated to enter engineering primarily by a desire for interesting and challenging work. They have an "activist orientation" in the sense of wanting to create concrete objects and systems—to build them and to make them work. They are more skilled in math than average college students, although they tend to have a low tolerance for ambiguities and uncertainties that cannot be measured and translated into figures.⁴¹

Compensation motives are for social rewards such as income, power, recognition, and job or career stability. We tend to think of these motives and values as self-interested, and in large degree they are. Yet most people seek money for additional reasons, such as to benefit family members or even to be able to help others in need. In addition, financial independence prevents one from becoming a burden on others. In general, due regard for one's self-interest is a moral virtue—the virtue of *prudence*—assuming it does not crowd out other virtues.

Moral motives include desires to meet one's responsibilities and to respect the rights of others. Such motives of moral respect and caring involve affirming that other people have inherent moral worth. In addition, moral concern involves maintaining self-respect and integrity—valuing oneself as having equal moral worth.

For the most part, these motives are interwoven and mutually supportive. All of them, not only moral motives, contribute to providing valuable services to the community, as well as professional relationships among engineers, other involved workers, and clients. Engineering is demanding, and it requires engineers to summon and to integrate a wide range of motivations. Indeed, life itself is demanding, and it can be argued that our survival requires constant interweaving and cross-fertilization of motives. As Mary Midgley observed, human nature

"must consist of a number of motives which are genuinely distinct and autonomous, but which are adapted to fit together, in the normal maturing of the individual, into a life that can satisfy."⁴²

3.4.3 Self-Realization and Personal Commitments

We turn now to the more community-oriented version of self-realization ethics. This version says that each individual ought to pursue self-realization, but it emphasizes the importance of caring relationships and communities in understanding self-realization and in defining the "self" to be fulfilled. It also highlights personal commitments, such as those of Jack Kilby, which express and develop individual talents while enriching communities.

On the one hand, this version of self-realization ethics emphasizes that we are social beings whose identities and meaning are linked to the communities in which we participate. This theme is expressed by F. H. Bradley (1826–1924): "The 'individual' apart from the community is an abstraction. It is not anything real, and hence not anything that we can realize. . . . I am myself by sharing with others, by including in my essence relations to them, the relations of the social state."⁴³

On the other hand, self-realization ethics points to the particular commitments individuals make in their work, as well as in their personal lives. Indeed, a central theme is how personal commitments motivate, guide, and give meaning to the work of engineers and other professionals.⁴⁴ They also form the core of an individual's character.⁴⁵ As such, they reflect what engineers care about deeply in ways that evoke our interest and energy, shape our identities, and generate pride or shame in our work. These commitments contribute to both public goods and personal fulfillment.

As noted in chapter 1, personal commitments are commitments that might not be incumbent on every member of a profession, including humanitarian, environmental, religious, political, aesthetic, supererogatory, and family commitments. They also include, however, voluntary commitments to obligatory professional standards, especially when these are linked to an individual's broader value perspective.

Personal commitments are often neglected in thinking about professional ethics because we associate professionalism with setting aside personal values in order to be objective and to meet shared standards of the profession. Of course, professionalism does require that personal biases not be allowed to undermine objectivity and shared standards. In general, there are limits to how these commitments are exercised in professional life—limits established primarily by the mandatory requirements expressed in codes of ethics, as well as by common decency and justice.⁴⁶ Yet the passion for objectivity and the reasoned devotion to professional standards are themselves personal commitments essential in engineering and science.

Personal commitments are relevant in many ways to professional life.⁴⁷ Most important, they create meaning; thereby they motivate professionalism throughout long careers. Professions offer special opportunities for meaningful

work, which explains much of their attraction to talented individuals. The relevant idea of meaning has subjective aspects—a “sense of meaning” that enlivens one’s daily work and life. It also has objective aspects—the justified values that make work worthwhile and help make life worth living. In the following passage Joanne B. Ciulla has in mind both subjective and objective meaning.

Meaningful work, like a meaningful life, is morally worthy work undertaken in a morally worthy organization. Work has meaning *because* there is some good in it. The most meaningful jobs are those in which people directly help others or create products that make life better for people. Work makes life better if it helps others; alleviates suffering; eliminates difficult, dangerous, or tedious toil, makes someone healthier and happier; or aesthetically or intellectually enriches people and improves the environment in which we live.⁴⁸

Ciulla emphasizes meaning derived from public-spirited commitments, but equally important is the meaning derived from the technical challenges in work and the relationships among coworkers.

Again, personal commitments shape the kinds of work individuals undertake, including career choices, decisions about particular jobs, and discretionary choice in work assignments. Weapons development is a poignant example. Gene Moriarty reports that his first job prospect after college was a large aerospace company.

The engineers in my prospective group were excitedly telling me about a system they were developing. It sensed the terrain with an ingenious radar mechanism, employed an elaborate feedback control structure, and made determinations on the basis of statistical decision rules. The job offered fascinating prospects for sophisticated engineering designs. But then I took a wider look at the project and realized that the system I’d be working on was to form part of the signal processing unit of what came to be the Cruise Missile.⁴⁹

Moriarty decided not to pursue the job because, while it offered “a technically sweet project,” since childhood he had believed that “war was good for nothing, generally speaking, except making the rich people richer.”⁵⁰

In contrast, engineers with commitments to a strong national defense, as essential in safeguarding democratic values, might have responded quite differently, especially if they saw in the cruise missile an accurate weapon that could minimize civilian casualties. Such personal convictions and commitments should not be dismissed as mere subjective matters lacking relevance to engineering ethics. On the contrary, they enter centrally into individuals’ understanding of their responsibilities to the public affected by their work.

As a different type of example, consider supererogatory conduct—admirable conduct beyond the minimum duties incumbent on all members of a profession. A dramatic example, chronicled by Loren R. Graham in *The Ghost of the Executed Engineer*, is the courageous and creative life of Peter Palchinsky, who literally sacrificed his life for his ideals.⁵¹ Although he was officially a Marxist, Palchinsky crusaded for ideals such as the rights of workers and the safety of the public affected by technology. Educated as a mining engineer, his first job was studying workers in the coal mining operation in the Ukraine’s Don Basin. He

immediately saw that the efficiency and productivity of the mines was linked to the workers' living conditions, and he developed the first quantitative information about their poor housing and transportation. The experience was formative. During the next three decades of his career he persistently connected engineering with the people it affects, understanding technical matters as interwoven with social, economic, and political issues. Gradually moving into top leadership positions, he lobbied for engineers to become more broadly educated and to accept wider responsibilities for the human dimensions of their work. Clearly, his personal commitments were not reducible to the shared requirements stated in a professional code of ethics—if only because one of his goals was to win recognition for professional societies that could write such codes! Although his only crime was vigor in pursuing commitments to humane industry and humanitarian engineering, Joseph Stalin had him executed for treason. It is no exaggeration to say that he sacrificed his life in seeking to advance professional standards.

Palchinsky is an extreme case. A more immediate concern is whether the engineering profession should do more to encourage engineers to apply their skills in offering voluntary service to others.⁵² There are many essential needs not met in our society. Other professions, especially law, have strong traditions of encouraging pro bono service, that is, services provided free or at reduced fees. Should engineering do the same?

3.4.4 Religious Commitments

These examples barely hint at the myriad ways in which personal commitments, ideals, and meaning enter into professional ethics, including how individuals construe codified responsibilities.⁵³ Later we offer additional illustrations; for example, in chapter 6 we comment on personal commitments in connection with whistleblowing, and in chapter 8 we comment on environmental commitments. Here we will discuss how personal religious beliefs have relevance to the professional lives of many engineers. Doing so will also provide the opportunity to reflect more widely on the relationship of religion to morality.

For many individuals, religious beliefs and spiritual attitudes are especially important personal commitments relevant to all aspects of their lives, including their professions. Here are two examples.

Egbert Schuurman is a Dutch Calvinist engineer who has written extensively on technology.⁵⁴ Highlighting the dangers of technology, he calls for redirecting technology to serve morally worthy aims, both human liberation and respect for the environment. He and his coauthors of *Responsible Technology* articulate normative principles for design. They include: cultural appropriateness (preserving valuable institutions and practices within a particular society); openness (divulging to the public the value judgments expressed in products and also their known effects); stewardship (frugality in the use of natural resources and energy); harmony (effectiveness of products together with promoting social unity); justice (respect for persons); caring (for colleagues and workers); and trustworthiness (deserving consumers' trust).⁵⁵

Mark Pesce is the principal engineer for Shiva Corporation, which invented dial-up networking. In 1994, Pesce and a colleague developed the Virtual Reality Modeling Language (VRML), which allowed three-dimensional models to be placed on the World Wide Web.⁵⁶ Emphasizing the importance of spiritual attitudes in his work, he makes it clear that his beliefs are neither orthodox nor associated solely with any one world religion. He characterizes his beliefs as "a mélange of a lot of different religious traditions, including Christian, pre-Christian, Buddhist, Taoist and so on," integrated into a type of "paganism" which is "a practice of harmony, a religion of harmony with yourself and the environment."⁵⁷ He is aware that his contributions to technology can be used as tools of communication or weapons of domination. Spiritual attitudes seek ways to allow aspects of the sacred into technology, to find ways for technology to make human life more interconnected through global communication, as well as attuned to nature, and to allow individuals to express themselves in more broadly creative ways through the Web.

These two examples of religious faith, traditional and nontraditional, underscore the highly personal nature of religious belief. They also remind us of the enormous diversity of religious belief. William James suggested that when we examine the full range of religious beliefs "we may very likely find no one essence, but many characters [that is, features] which may alternatively be equally important to religion."⁵⁸ Some religions make central belief in one deity (Judaism, Christianity, Islam), others are polytheistic (Hinduism), and still others are nontheistic (Zen Buddhism). Most religions endorse particular worldviews (about human destinies and the origin of the universe), moral perspectives, scriptures, ways of structuring religious communities, and rituals such as prayer and fasting—but the variations are enormous, not only among religions but even within a particular world religion.

Despite their diversity, religious beliefs can support morally responsible conduct in several ways. One way is by providing supporting motivation for being moral. We are not referring primarily to self-interested motives such as the fear of punishment, but rather inspiration rooted in religious faith. Another way religions support moral conduct is by stimulating moral reflection and offering practical guidance, often through stories, parables, and the celebration of moral exemplars such as the lives of prophets and saints. In addition, religions sometimes set a higher moral standard than is conventional. In doing so, many religions emphasize particular ideals of character, which as we noted have permissible variations within a framework of ethical pluralism. For example, the ethics of Christianity centers on the virtues of hope, faith, and especially love; Judaism emphasizes the virtue of *tsedakah* (righteousness); Buddhism emphasizes compassion; Islam emphasizes *ihsan* (translated as either piety or the pursuit of excellence); and Navajo ethics centers on *hozho* (translated variously as harmony, peace of mind, beauty, health, or well-being).

To be sure, sometimes sects employ moral standards below what most of us view as acceptable, for instance by not recognizing the equal rights of women, or by treating children in ways that health professionals see as harmful.⁵⁹ Tragically,

some religious subgroups engage in terrorism, reminding us that some personal commitments are unjustified by both professional codes and common decency. Religious views are themselves open to moral scrutiny.

3.4.5 Which Ethical Theory Is Best?

Just as ethical theories are used to evaluate actions, rules, and character, ethical theories can themselves be evaluated. In this chapter, our concern has been to introduce some of the most influential ethical theories rather than to try to determine which is preferable. Nevertheless, we sometimes argue against particular versions of each type of theory. For example, we argued against act-utilitarianism, as compared with rule-utilitarianism, and we argued against ethical egoism. We hinted at our preference, as authors, for nonlibertarian versions of rights ethics. And we suggested that few duties are absolute, contrary to Kant.

Which criteria can be used in assessing ethical theories, and which criteria did we use? The criteria follow from the very definition of what ethical theories are. Ethical theories are attempts to provide clarity and consistency, systematic and comprehensive understanding, and helpful practical guidance in moral matters. Sound ethical theories succeed in meeting these aims.

First, sound ethical theories are clear and coherent. They rely on concepts (ideas) that are sufficiently clear to be applicable, and their various claims and principles are internally consistent.

Second, sound ethical theories organize basic moral values in a systematic and comprehensive way. They highlight important values and distinguish them from what is secondary. And they apply to all circumstances that interest us, not merely to a limited range of examples.

Third, and most important, sound ethical theories provide helpful guidance that is compatible with our most carefully considered moral convictions (judgments, intuitions) about concrete situations. Who does "our" refer to? It refers to each of us, in moral dialogue with others. To take an extreme case, if an ethical theory said it was all right for engineers to create extremely dangerous products without the public's informed consent, then that would show the theory is inadequate.

Of course, even our most carefully considered convictions can be mistaken, sometimes flagrantly so as with racists and other bigots. An important role of a sound ethical theory is to improve our moral insight into particular problems. Hence, there is an ongoing checking of an ethical theory (or general principles and rules) against the judgments about specific situations (cases, dilemmas, issues) that we are most confident are correct, and, in reverse, a checking of our judgments about specific situations by reference to the ethical theory. Theories and specific judgments are continually adjusted to each other in a back-and-forth process until we reach what John Rawls calls a *reflective equilibrium*: "It is an equilibrium because at last our principles and judgments coincide; and it is reflective since we know to what principles our judgments conform and the premises of their derivation."⁶⁰

Which of the ethical theories most fully satisfies these criteria? In our view, some versions of rule-utilitarianism, rights ethics, duty ethics, virtue ethics, and self-realization ethics all satisfy the criteria in high degrees. We find ourselves more impressed by the similarities and connections, rather than the differences, among the general types of theories.

Thus, we suggested that duty ethics and rights ethics largely differ in emphasis. We also suggested that virtue ethics needs to be complemented by the other theories. There are many other connections among the theories that might be pursued. For example, the community-oriented version of self-realization ethics can be linked to Kant's idea of duties to oneself, Mill's emphasis on personal liberty, and to the Aristotelian pursuit of excellence. In any case, the differences within each of the moral traditions are at least as striking as the differences between the types of theories themselves.⁶¹ For example, the internal differences between libertarianism and most rights ethics, or between ethical egoism and community-oriented self-realization theories, reflect the broader differences in moral perspectives about the relationships between individuals and communities.

DISCUSSION QUESTIONS

1. The following widely discussed case study was written by Bernard Williams (1929–2003). The case is about a chemist, but the issues it raises are equally relevant to engineering. What should George do in order to best preserve his integrity? Is it permissible for him to take the job and “compartmentalize” so as to separate his work and his personal commitments? In your answer, discuss whether in taking the job George would be compromising in either of the two senses of “compromise”: (1) undermine integrity by violating one's fundamental moral principles; (2) settle moral dilemmas and differences by mutual concessions or to reconcile conflicts through adjustments in attitude and conduct.⁶²

“George, who has just taken his Ph.D. in chemistry, finds it extremely difficult to get a job. He is not very robust in health, which cuts down the number of jobs he might be able to do satisfactorily. His wife has to go out to work to keep [i.e., to support] them, which itself causes a great deal of strain, since they have small children and there are severe problems about looking after them. The results of all this, especially on the children, are damaging. An older chemist, who knows about this situation, says that he can get George a decently paid job in a certain laboratory, which pursues research into chemical and biological warfare.”⁶³

2. With regard to each of the following cases, first discuss what morality requires and then what self-interest requires. Is the answer the same or different?
 - a. Bill, a process engineer, learns from a former classmate who is now a regional compliance officer with the Occupational Safety and Health Administration (OSHA) that there will be an unannounced inspection of Bill's plant. Bill believes that unsafe practices are often tolerated in the plant, especially in the handling of toxic chemicals. Although there have been small spills, no serious accidents have occurred in the plant during the past few years. What should Bill do?⁶⁴
 - b. On a midnight shift, a botched solution of sodium cyanide, a reactant in an organic synthesis, is temporarily stored in drums for reprocessing. Two weeks later, the day shift foreperson cannot find the drums. Roy, the plant manager, finds out that the

batch has been illegally dumped into the sanitary sewer. He severely disciplines the night shift foreperson. Upon making discreet inquiries, he finds out that no apparent harm has resulted from the dumping.⁶⁵ Should Roy inform government authorities, as is required by law in this kind of situation?

3. A *work ethic* is a set of attitudes, which implies a motivational orientation, concerning the value of work.⁶⁶ Which, if any, of the following work ethics do you find attractive, and why? Which of them, as applied to engineering, are compatible or incompatible with the kinds of commitments desirable for professionals?
 - a. The Protestant work ethic, as named and analyzed by sociologist Max Weber in *The Protestant Ethic and the Spirit of Capitalism*, was the idea that financial success is a sign that predestination has ordained one as favored by God. This was thought to imply that making maximal profits is a duty mandated by God. Profit becomes an end in itself rather than a means to other ends. It is to be sought rationally, diligently, and perhaps without compromise with other values such as spending time with one's family.
 - b. Work is a necessary evil. It is the sort of thing one must do in order to avoid worse evils, such as dependency and poverty. But it is mind-numbing, degrading, and a major source of anxiety and unhappiness.
 - c. Work is the major instrumental good in life. It is the central means for providing the income needed to avoid economic dependence on others, for obtaining desired goods and services, and for achieving status and recognition from others.
 - d. Work is intrinsically valuable to the extent that it is enjoyable or meaningful in allowing personal expression and self-fulfillment. Meaningful work is worth doing for its own sake and for the sense of personal identity and self-esteem it brings.
4. Discuss the following claim: "It is irrelevant what the motives of professionals are; what matters is that they do what is right." In your answer, distinguish questions about the motives for a specific right action and questions about habits or patterns of motivation throughout a career.
5. One argument against ethical egoism is that it is self-defeating. In stating "the paradox of happiness," John Stuart Mill wrote: "Those only are happy . . . who have their minds fixed on some object other than their own happiness; on the happiness of others, on the improvement of mankind, even on some art or pursuit, followed not as a means, but as itself an ideal end. Aiming thus at something else, they find happiness by the way."⁶⁷ The idea is that self-absorption tends to narrow our interests and shut us off from rewarding relationships. Most of life's deepest satisfactions, whether in one's work or in personal relationships, come from developing commitments to other persons and activities. Assess Mill's argument, and discuss whether it provides a refutation of ethical egoism.
6. Psychologist Carol Gilligan, in her book *In a Different Voice*, argues that women tend to define themselves more in terms of caring relationships with others, whereas men tend to think of themselves more individualistically.⁶⁸ Based on your experience, is that true? If so, what implications might it have in thinking about engineering ethics?
7. Long before H. G. Wells wrote *The Invisible Man*, Plato (428–348 B.C.) in *The Republic* described a shepherd named Gyges who, according to a Greek legend, discovers a ring that enables him to become invisible when he turns its bezel. Gyges uses his magical powers to seduce the queen, kill the king, and take over an empire. If we have similar powers, why should we feel bound by moral constraints? In particular, if professionals are sufficiently powerful to pursue their desires without being caught for malfeasance, why should they care about the good of the wider public?

In your answer, reflect on the question "Why be moral?" Is the question asking for self-interested reasons for being moral, and if so does it already presuppose that only self-interest, not morality, provides valid reasons for conduct?

KEY CONCEPTS

- Utilitarianism:** Right action consists in producing the most good for the most people, giving equal consideration to everyone affected. *Act-utilitarianism* says maximize the overall good of each action, in each situation. *Rule-utilitarianism* says live by a set of rules that maximize the overall good.
- Theories of good** specify *intrinsic goods*, that is, things inherently worth seeking, perhaps such things as pleasure, happiness, a list of desirable activities and relationships, satisfaction of preferences, or satisfaction of rational desires.
- Rights ethics:** Right action consists in respecting human rights. *Most rights ethicists* believe there are both liberty rights (right not to be interfered with) and welfare rights (right to benefits needed for a decent human life when one cannot earn those benefits on one's own and when the community has them available). In contrast, *libertarians* believe there are only liberty rights. In addition to human rights, which we have because we are human beings, there are special moral rights that arise because of contracts and other special relationships.
- Duty ethics:** Right actions are those required by principles of duty to respect the autonomy (self-determination) of individuals.
- Prima facie duties** are duties that have some permissible exceptions when they conflict with more pressing duties, as distinct from *absolute duties* that never have justified exceptions. (In similar senses, "prima facie" is sometimes applied to rights, rules, principles, etc.)
- Virtue ethics:** We should develop and manifest good character as defined by the *virtues*—desirable habits or tendencies in action, commitment, motive, attitude, emotion, ways of reasoning, and ways of relating to others.
- Self-realization ethics:** Right action consists in seeking self-fulfillment. In one version, the self to be realized is defined by caring relationships with other individuals and communities. In another version, called *ethical egoism*, right action consists in always promoting what is good for oneself, with no presumption that the self is defined in terms of caring and community relationships.
- Theories about motivation:** General perspectives on what motivates engineers and others. *Psychological egoism* says that all people are only motivated by self-seeking, that is, by what they believe is good for them (at least in some respect). More plausibly, *predominant egoism* says that the strongest desire for most people most of the time is self-seeking. This view allows that engineers are motivated by combinations of *proficiency motives* (skill, excellence), *compensation motives* (money, power, recognition), and *moral motives* (respect and caring for others).

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