

of important traitors was widely publicized to exalt still further the hero, showing the contrast between him and the traitors and proving to the masses that those who oppose the hero are really enemies of the people, secret agents of evil.

Explanation of the hero's failures by the treason of his followers helps us understand why some creators of order have remained heroes in legend and history, even though they were ultimately overthrown and their order destroyed. Of course, their downfall might have been directly due to the power of their enemies; but, as proved by their earlier victories, their enemies would have been unable to defeat them without the help of traitors. When the posthumous cult of Napoleon developed, his defeat was ascribed to the treason of his allies, some of his marshals, and certain of his ministers of state (Fouché and Talleyrand). We can be sure that the cult of Mussolini and especially that of Hitler will continue and that their worshippers will consider treason one of the factors of their ultimate fall.

Finally, the failure of a creator of social order may be explained by the moral weakness or wickedness of the people whose conduct he wanted to regulate. This is the easiest explanation; and it can be resorted to by the followers of a political hero or of any prophet or reformer. Prophets of Israel who failed to influence the people condemned the wickedness of the people; yet they became heroes whose words have been preserved for posterity. For the followers of a prophet have been converted from wickedness to goodness; they are the select few to whom his condemnation does not apply, and to them he is a hero whose greatness is not impaired by his failure to convert the wicked majority. To this day may be found many such select groups, sacred and secular, each with its own hero who is prevented from creating order in his society or in the world at large only by the innate badness or acquired depravity of the human species, which makes the agents of evil more influential than the agents of good.

Objective Order as a Condition of Successful Activity

CHAPTER

2

The relation between magic, religion, and technology

Our brief survey of the old and persistent idea that order of every kind is created and maintained by the will of some conscious agent raises the question: In cultures dominated by this type of thinking, how could the conception of a factual order of phenomena existing independently of the will of creators and guardians ever have evolved?

In trying to answer this question, we find that it should be subdivided. For the persistence of faith in human creators of moral order, even after human individuals ceased to be considered capable of creating or maintaining an order of *nature* by the power of their will, indicates that the conception of an independent order among natural objects developed more rapidly and effectively than the conception of an independent order among human actions. There must have been two historical processes, both of which need explanation. We shall begin with the first.

It is generally recognized, of course, that even the most primitive peoples must have had a knowledge of the regularities of nature sufficiently objective and valid to guide their material techniques. But if this knowledge was inextricably mixed with and dominated by magical and religious beliefs, how did it ever become separated and freed from those beliefs and eventually organized into more or less coherent theories? It could not have been by testing the effectiveness of magical and religious methods in comparison with technical methods, and rejecting the former while preserving the latter; for, as we have already seen, magical and religious beliefs were and still are unaffected by such tests. To this very day, the majority of technical workers throughout the world preserve faith in the practical effectiveness of religion, and a considerable proportion of them still keep some faith in the effectiveness of magic. To them it is not a matter of choice between technique on the one hand and magical ritual or religious propitiation on the other hand: They use both.

Most investigators of magic and religion leave this problem unsolved. Thus Frazer, whose wealth of factual information in this field of research is probably greater than that of any other investigator, simply states: "From the earliest times man has been engaged in a search for general rules whereby to turn the order of natural phenomenon to his own advantage, and in the long search he has scraped together a great hoard of such maxims, some of them golden and some of them merely dross. The true or golden rules constitute the body of applied science which we call the arts; the false are magic."¹

But this true-false dichotomy does not eliminate by transcendental necessity the false from human thinking. Men did not become aware that some of their judgments were "true" and others "false" until they discovered that there was a logical contradiction between them. And the discovery that there is a basic logical contradiction between magical judgments on the one hand and judgments of applied science on the other hand came very late—indeed, not until systematic philosophy of nature developed.

Moreover, the question is not merely why belief in the effectiveness of magical performances and the validity of magical doctrines weakened, while belief in the effectiveness of material techniques and the validity of technological generalizations strengthened. Even more challenging is the vast expansion of material techniques and technological knowledge which preceded by many centuries the emergence of natural philosophy and science. And here we notice that cultures in which organized religion dominated magic, and priests controlled the magicians, were also those which had the most developed technology; take Egypt, Babylonia, China, India, Peru, Europe during the Middle Ages. Whereas cultures where magical performances predominate over religious cultus have always been and still are also technically backward. This certainly does not conform at all with the famous assertion of Frazer: "In so far as religion assumes the world to be directed by conscious agents who may be turned from their purpose by persuasion, it stands in fundamental antagonism to magic as well as to science."²

If religion conflicts with magic, it is not because magic assumes that "the processes of nature are rigid and invariable," while religion implies an "elasticity or variability of nature," but because magicians, instead of leaving the control of nature to the gods, try to "deflect by their operations" the course of events determined by divine will. Whereas no such conflict appears between religion and natural, nonmagical techniques, so long as technicians do not interfere with the divine order.

We think that the key to the whole problem lies in the practical differentiation and separation of two kinds of human activity which deal with natural

¹ Frazer, *The Golden Bough*, I, 50.

² *Ibid.*, p. 224.

objects. This separation is mentioned and described in many monographic studies of nonliterate cultures; and the French school of sociology has generalized their results by distinguishing two categories or realms of primitive activity: the *sacred* and the *profane*. The term "profane" must be understood as "devoid of magical or religious significance"; it is not (as sometimes used in common speech) equivalent to "impure," i.e., endowed with negative magico-religious power.

The realm of the profane

Inasmuch as the kind of thinking which leads to magic and religion originates in practical problems of unexpected failure or unusual success, so long as such problems are not raised or anticipated, life goes on undisturbed by mystical speculation. In every society, day after day, people carry on familiar activities, following traditional patterns without resorting continually to magical ritual or religious propitiation. The many minor practical problems which arise in the course of these activities are viewed as purely technical, capable of being solved by the use of adequate tools and proper skill. Magical and religious performances are generally reserved for special periods, usually preceding or following commonplace activities.

Thus, before starting a specific activity, such as hunting, fishing, producing a weapon, a rug, a boat, a house, cultivating a garden plot or a field, an individual or collective rite is performed to bring success with the aid of good powers and to prevent failure by keeping evil powers away. After the technical activity is ended, another magico-religious rite may be performed to insure the desirability of its aftereffects. Group ceremonies also take place at regular intervals to make their participants successful and safe in whatever activities they will undertake after the ceremony or to neutralize whatever evil influences may have affected them before the ceremony. Such are family rites and prayers, morning and evening; weekly ceremonies corresponding to phases of the moon; monthly ceremonies between moon cycles; seasonal and New Year ceremonies.

The ceremonial activities are sacred; the technical activities between the ceremonies are profane, ordinary, commonplace. The whole time during which sacred activities are performed is sacred time; no ordinary technical activities are then permitted, for they would make the rites and prayers ineffective or even harmful.³

This division between the sacred and the profane is still clearer when not

³ "Étude sommaire de la représentation du temps dans la religion et la magie," Hubert and Mauss, *Mélanges d'histoire des religions*, pp. 189-229; Webster Hutton, *Rest Days* (New York: Macmillan, 1910); "Festivals and Fasts," *Encycl. of Rel. and Ethics*, V (1912), 835-94.

only special times but special holy places are reserved for sacred activities: totemic wells, holy woods, rocks, mountains, graves, altars, chapels or corners in family homes, temples. Most sacred activities, or at least the important ones, are supposed to be performed in or near such holy places, and no profane activity should be carried on there. In all other spaces, once they have been made safe from evil powers, commonplace activities may go on undisturbed.⁴

Another factor separating still further the sacred from the profane is the use of special consecrated implements for the former. The material, shape, and color of a sacred implement, as well as the methods of using it, are strictly regulated and controlled, for its effectiveness depends on its inner sacredness; and this is conditional upon the complete conformity of its nature and usage with the traditional pattern. Technical instruments, which lack this sacredness anyway, are permitted to vary within limits, and it does not matter so much how they are used.

But the most important influence which has resulted in a growing contrast between the sacred and the profane components of practical life has been the development of a professional class of holy persons specializing in magical and religious activity and thought. Such specialists cannot perform ordinary technical actions which secular people devoid of sacredness carry on, for this might profane their holy essence and make them lose their power, besides diverting their time, attention, and energy from their main function, incompensably more valuable to society than anything they could accomplish in the technical field.⁵ On the other hand, technical workers cannot carry on by themselves important magical or religious activities, since this would be not only ineffective but dangerous. They must leave to holy specialists the task of controlling magically the evil powers of nature and propitiating the gods; all they are expected to do is to participate in collective ceremonies under the guidance of specialists.

Consequently, within the general framework of magico-religious thinking there has always been a field left for the purely technological thinking which compared human actions in terms of their technical efficiency. And this field expanded as greater power came to be ascribed to the divine creators and guardians of the natural order. In the most developed religions, powerful gods—and only gods—could give men complete security against agents of

⁴ John R. McCulloch, "Temples," *Encycl. of Rel. and Ethics*, XII (1922), 237-46 (brief, but good summary).

⁵ Many such prohibitions are expressed in *Sacred Books of the East*, ed. Max Müller; e.g., "Let him treat Brahmanas who tend cattle, those who live by trade, those who are artisans, actors, servants . . . like Sudras" (Vol. XIV, *Bandhavyana*, I, 5, No. 24); "The pursuit of agriculture impedes [the study of] Veda" (*ibid.*, p. 10); agriculture is forbidden to Buddhist monks (Vol. XIII, p. 33; Vol. XIX, p. 296).

See also Frazer, *op. cit.*, Vol. II, *passim*, about taboos to which kings-priests are subjected to prevent the profanation of their sacredness.

disorder, be they human "black" magicians or supernatural spirits of evil. And insofar as men were assured that gods would not allow destructive agents to disturb the order of nature, their success or failure seemed to depend exclusively on their own knowledge of natural phenomena and their skill in handling them.

Main sources of technological reflection

The most obvious and permanent source of the technological thinking which compared human activities in terms of their technical efficiency was the need of training the young in material techniques. Even if such training was not considered of itself sufficient to insure future success, it was an indispensable condition of success, and much of it usually preceded the initiation of the young generation into magical and religious beliefs and practices. Training the young and estimating their progress required some generalizations concerning the empirical characteristics of objects included in technical performances and the succession of empirical changes which these objects underwent in the course of these performances.⁶

Comparison between the technical performances of adult agents under presumably similar conditions is another source of empirical generalization. For instance, Malinowski described magical rituals presumed to stimulate the growth of vegetables in Trobriand gardens and to keep evil influences away. The benefits of these rituals extended to all the gardens, and yet some gardeners were more successful than others. While occasionally these differences might be ascribed to magico-religious causes, yet usually, by common consensus, they were explained by observable differences in the amount of work which individual gardeners put into the cultivation of their plots and the degree of skill and common-sense knowledge which they possessed. There was considerable rivalry for prestige among them, but the basis of prestige was not superior magical power, only superior technical ability.⁷

Even more marked is the relative importance of technical skill and secular knowledge as against magical power and sacred knowledge in specialized handicrafts dealing with inanimate objects. While certain crafts originally were reserved for those who possessed some magical powers, yet differences in experience, training, and information were always recognized. Increasing specialization in craftsmanship, which involved long periods of apprenticeship and eventually led to the organization of craftsmen's guilds, enlarged

⁶ A vast amount of material about the technical training of children in tribal communities and rural folk communities is contained in ethnographic literature, but very few comparative studies have ever been published. We may mention Nahman Miller, *The Child in Primitive Society* (New York: Brentano's, 1928); Wilfrid D. Hamby and Charles Hose, *Origins of Education among Primitive Peoples* (London, 1926).

⁷ Bronislaw Malinowski, *Coral Gardens and Their Magic*, 2 vols. (London, 1935).

considerably the field of purely technological reflection.⁸ Usually guilds had secret lore which only members shared, and some of this lore was magical, but much of it concerned technical methods of production. And with the development of religious cults, traditional magical lore either lost its importance or (as in the Middle Ages) was banned by the religious authorities, with the result that magic ceased to be used by guild members who submitted to the control of the church and continued to be used only by individual nonconformists and by secret associations.⁹

Religion, indeed, had a large part in the functioning of ancient and medieval guilds. Participation in religious ceremonies of the city or the church was considered indispensable for the normal existence of the individual craftsman and for the continued duration of his association. But the influence of these religious activities was not explicitly connected with specific techniques of the craft. They affected the total life of the individual and the group, not any particular technical performance of theirs. Once the good will of heroes, saints, or divinities was gained and the interference of evil powers warded off with the help of the sacred virtue and knowledge of priests, craftsmen assumed full responsibility for the effectiveness of their technical skill and the validity of their technological knowledge.¹⁰

In agriculture, this partial liberation of technique from magic and religion was slower, mainly because the intended final results of agricultural activities were not immediately observable (as were the products of handicraft), but

⁸ Probably one of the reasons for this emphasis on technical efficiency was the need for military weapons. In republican Rome, out of ten *collegia* of artisans, those were the most privileged which produced arms. See Etienne M. Saint-Léon, *Histoire des corporations et des métiers* (Paris, 1909). We do not know whether any magical rites were used by them, but in any case victory in war depended primarily, if not exclusively, on religious cults of the gods.

⁹ There have been many, though seldom consistent or effective, attempts of prominent church leaders to distinguish between natural techniques and magic in alchemy and medicine. The fact that various virtues and powers were sometimes ascribed to things which seem to modern scientists survivals of early superstitions did not make the technical operations based on these beliefs magical, so long as the alchemists, pharmacist, or doctor did not rely on the alleged mystical power of some unknown will or on that of demons. See Lynn Thorndike, *History of Magic and Experimental Science*, Vols. III and IV.

¹⁰ Historical evidence shows that in the late Middle Ages the separation of technique and religion in craft guilds (as distinct from the earlier religious fraternities) became very complex. The guild as a purely secular group exerted complete control over profane activities: the technical preparation of apprentices as well as the use of proper tools and the application of well-adapted processes of manufacture (Saint-Léon, *op. cit.*, pp. 87 ff., 148); Lujio Brentano, *On the History and Development of Guilds* (London, 1870).

On the other hand, the priesthood exerted complete control over the participation of group members in sacred activities. Profane technical work was entirely prohibited on Sundays, holy days, Saturday afternoons, and on the eves of important holy days (Brentano, *op. cit.*, p. 69; Saint-Léon, *op. cit.*, pp. 140-43).

only after a long period of waiting, during which various kinds of forces beyond the farmer's technical control might affect them favorably or unfavorably. Consequently, even in Western civilizations as late as the nineteenth century some old folk-magic survived in isolated rural communities,¹¹ and in nearly all rural communities religious ceremonies and prayers intended to bring divine blessing were used to supplement technical activities.¹²

But they were not substituted for technical activities. While hard work, skill, and knowledge were not sufficient to insure success and to prevent failure, no magic, no religious propitiation, could make a lazy, unskilled, or ignorant person a successful farmer. Divine agencies simply would not act for the benefit of the inefficient. "Gods helped those who helped themselves," for only such deserved divine help. And if sometimes gods did not help them either, there was always some reason; e.g., a penalty for personal or collective sins, which might not have been committed during the process of farming, but at some other time. And if the reason was unknown to men, this did not mean that there was none, for divine thinking was often above human understanding. In any case, the primary task of the farmer was to use the best technological knowledge and the best technical skill, according to the standards recognized in his community, and to hope and pray for divine assistance.¹³

Results of technological reflection

Technological knowledge due to comparative reflection about technical activities includes three types of generalizations.

First of all, the success or failure of a technical action was found to depend on the technician's knowledge of the empirical nature of the objects which he used as materials and as instruments of his activity. Such knowledge was an agglomerated product of the results of past observation and was expressed in taxonomic generalizations implying the existence of an objective order of similarities and differences characteristic of logical classes and subclasses.

Such a classification sometimes cut across a magico-religious classification of objects, as when under the totemic system certain kinds of animals, certain

¹¹ Materials in Frazer, *op. cit.*

¹² A classical example from China: The "son of Heaven," before farm husbandry starts every year, prays to God for a good year; later, on a propitiations day, he plows three furrows, followed by ministers and feudal princes, *Sacred Books of China. The Liâi (Sacred Books of the East, Vol. XXVII)*. Over 60 pages of this book are devoted to sacred governmental ceremonies.

For an interesting example from present-day Europe, see Clement Simon Mihanovich, "Religious Folklore in the Poljica Region of Dalmatia," *Jour. of Am. Folklore* (July-September, 1948).

¹³ E.g., James N. Williams, *Our Rural Heritage* (New York: Knopf, 1925), p. 36.

kinds of plants, and certain inanimate objects were classed together with members of a certain clan on the basis of a mystical affinity between them and the clan;¹⁴ or when objects, however diverse empirically, were viewed as belonging together because they were under the tutelage and control of the same divinity. But this simply meant that a technician had to take the magico-religious category into consideration as well as the natural class. It might limit the range or importance of technological generalizations, but did not make them invalid. Even now, practical and scientific classifications do not always coincide; e.g., when a farmer classifies as weeds all the plants growing in his fields for which he has no use, or when chemical compounds sold by a pharmacist for medical purposes are classed as drugs, while chemical compounds sold by a grocer for nourishment are groceries.

Of course, so long as magico-religious thinking persisted, there was always a possibility that a particular object, seemingly belonging to an empirical class already known, possessed some hidden force, not apparent to observation, which influenced positively or negatively the technician's activity. What seemed to be an animal of a certain natural species might prove to be a supernatural being; an ordinary tree might be the seat of a spirit; a stone, a piece of metal might be the possession of a god; a weapon, a tool, a boat might have been blessed or cursed by a powerful magician. But the existence of such a mystical property inherent in a particular object did not invalidate technological knowledge about the natural properties characteristic of the empirical class to which this object belonged. If a technician who was ignorant of the nature of his objects failed, while those who knew their nature succeeded, he could hardly explain his failure away merely by asserting that his objects must have been mystically different from theirs.

These taxonomic generalizations about the nature of objects handled by technicians were supplemented by generalizations concerning the changes which occurred in them during technical actions. As such actions grew in length and complexity, thinkers who compared them analyzed their performance into sequences of factual changes. Craftsmen and craftsmen in teaching and learning, in competing for recognition of superior achievements, and especially in modifying established patterns, observed every change of objects in relation to preceding and following changes; with technical specialization and the formation of craftsmen's guilds, hundreds of diverse technical processes were thus analyzed. The discovery of regularities in sequence of elementary changes led to causal generalizations about natural facts. Even if the primary cause of the total technical performance was still the active will of the craftsman, yet each elementary change in an object could be causally explained by some observable preceding change in the same or another object.

¹⁴ Cf. Émile Durkheim and Marcel Mauss, "De quelques formes primitives de classification," *L'Année sociologique*, Vol. VI (1901-02).

Whether this preceding change had happened independently of the craftsman or was initiated by him, once it occurred, its effect was bound to follow in the natural course of events, whether desired or undesired. Though human or divine magicians could divert this natural course of events by the causative power of their will, yet their interference was unusual; and if it occurred, it did not invalidate conclusions of technologists that observable changes of objects normally followed a causal order, just as the observable nature of objects normally conformed with a taxonomic order.

A third type of natural order, gradually discovered, was that of interdependence between the parts of a whole. The craftsman himself produced this kind of order when constructing a complex whole like a tent or a house, but he also found it existing independently of him. The most easily observable and therefore the earliest observed was the spatial order. The primitive geometer found it when outlining the limits of an area for camp or garden, subdividing it, tracing directions, and measuring distances from a given center. The primitive astronomer went further than this, since he observed not only the spatial patterns in the relative position of stars but—what was even more important for him—the primary regularities in the daily movement of the heavenly sphere and the secondary regularities in the movement of the sun, the moon, and the planets.

Originally this spatial order was pervaded by magico-religious powers and susceptible to magico-religious influences. Geometrical areas, lines, points, directions on the surface of the earth either were originally endowed with various degrees of positive or negative sacredness or could be consecrated or desecrated by men or by gods at the request of men. The sky, the heavenly bodies were either divine or controlled by gods, and radiated sacred powers; by propitiating gods, men could influence in some measure their arrangement and their movements. In short, if things located in space or moving in space constituted a system, it was because a magico-religious connection existed between them.

Nonetheless, even though man could occasionally influence this order, he was normally dependent upon it and had to investigate it for his utilitarian purposes. This investigation led gradually to mathematical and astronomical generalizations, which during many centuries were used for magico-religious guidance and prediction. Geometrical figures and measurements were applied for purposes of geomancy to ascertain what spots, areas, and directions were propitious or unpropitious for cultivation, the erection of buildings, roadmaking, etc.¹⁵ Astronomical observations and calculations served to establish a calendar primarily for the regulation of holidays and to predict the influence

¹⁵ Typically in China. Cf. Marcel Granet, *La Civilisation Chinoise* and *La Pensée Chinoise* (Paris, 1929 and 1934).

of heavenly bodies upon the future of human individuals and collectivities.¹⁶ Even abstract numbers had such a magical significance. The survival of astrology and numerology in Western societies to this very day indicates how strong and persistent this magical application of mathematics is. But mathematics could also be used and became increasingly used for strictly technical purposes, such as architectural planning, agricultural planning, irrigation, weighing and numbering materials and products, etc.

A different idea of interdependence between the parts of a whole emerged from the observation of living organisms. Primitive artists, in their drawings, paintings, and sculptures of plants, animals, and human bodies, clearly manifested their awareness of this organic order as viewed from the outside; and technical workers, dissecting plants and animals and using their parts for various practical purposes, obviously acquired considerable knowledge of their inner structure. It is hardly surprising, however, that in view of the anatomical complexity of multicellular organisms, objective generalizations about the structural and functional order of living organisms were relatively slow to develop.

For another reason, theoretic generalization about the inner order of physical and chemical systems was also rather late to emerge. Generalization about physical systems had to be preceded by invention, for only within an engine regularly moving—whether driven by man power, animal power, water or wind power—could the structural and functional interdependence of parts be easily observed; and most of the regularly running engines required the use of wheels, which were not invented earlier than 5,000 years ago. Generalization about chemical systems could develop only in consequence of reflection about chemical analysis and synthesis, and this probably did not begin until the invention of bronze. The very fact that mechanical and chemical inventions were human products made it difficult for early reflection to conceive that there existed physical and chemical systems with an inner natural order of interdependence between their elements which was not created by the inventors, but which nonetheless conditioned the effectiveness of their inventions.

Thus, purely theoretic methodical knowledge about the order of nature emerged from a vast multiplicity of technological generalizations, which differed in different cultures and in every culture were divided among various branches of material techniques. Later we shall discuss briefly, in Chapter 6, how a systematic, coherent science of nature emerged out of this unsystematic,

¹⁶ Some historians have noticed how much astrology has contributed to the progress of astronomy. Thus, Guillaume Bigourdan, *L'Astronomie* (Paris, 1911), has a chapter "Astrologie: son influence capitale sur le développement de l'astronomie." Incidentally, he quotes Kepler, "how small would be the number of scientists devoting themselves to astronomy if men did not expect to read future events in the sky" (although Kepler wrote it at the beginning of the seventeenth century). See also Lynn Thorndike, *op. cit.*, Vol. I. This is an interesting problem for the sociology of knowledge.

logically incoherent plurality of specialized technologies. An important point for our problem, however, as we shall see presently, in Chapter 3, is that the process of unification and systematization was originally carried on not by inductive reasoning from more specific premises to more general conclusions, but by deductive reasoning from universal premises, accepted *a priori*, to specific conclusions. This has affected the whole history of cultural thought, because the same *a priori* premises, which were applied to the domain of nature and there became eventually, if slowly, tested and modified by factual evidence, were as sweepingly extended to the entire domain of cultural phenomena, where it was impossible to test them because they bore no reference to empirical facts in this domain. To this very day, deductive reasoning from universal *a priori* premises, in the form of so-called scientific monism, interferes with the development of all inductive cultural sciences and especially of sociology.

Comparative thinking about social activities

Along with the evolution of technological reflection, another kind of comparative practical reflection evolved. It was concerned with the factual conditions upon which the success of social activities, i.e., activities dealing with human beings, depended. We notice a certain parallelism between these two evolutionary trends; and yet, as we shall see, the knowledge which resulted from practical social thinking could not compare in range, validity, and practical utility with technological knowledge about natural phenomena. Why?

We saw that activities dealing with nonhuman objects were divided into two realms, the sacred and the profane; technological reflection was restricted to the profane, the commonplace which raised no mystical problems, and developed as this realm expanded. Activities dealing with human beings also, though perhaps less clearly, fell into two divisions. One may be called "public," the other "private." Speaking briefly and rather superficially, public activities were those which affected the collective life of a social group, private actions were those which affected only individuals. Comparative social reflection was mostly restricted to the private realm.

The distinction between public and private did not coincide with that between sacred and profane. Many public activities were not sacred. Thus, public war was distinct from private fights, raids, head hunting, etc., and yet it has always been essentially a nonsacred, profane activity, just as collective hunting, fishing, or home building. Magical rites and religious ceremonies had to be performed by powerful magicians or priests of powerful gods before a war, so as to protect warriors against evil powers, and after the war, so as to purify them. Even holy wars, carried on to defend religion, to spread religion among unbelievers, or to destroy heretics, were not intrinsically holy but were made holy by priests or prophets, who dedicated

warriors to the service of the gods, assured them of divine blessing, and brought the curse of the gods upon their enemies.

On the other hand, many private activities had a sacred character. The Romans explicitly distinguished between *sacra publica* and *sacra privata*. Magic and religion could be applied in relations between individuals. Thus, sexual intercourse was preceded or followed in many cultures by magical rituals intended to eliminate mystical dangers¹⁷ and is still preceded (even in many modern cultures) by religious ceremonies which counteract its intrinsic impurity and make all the difference between marriage, which is right, and extramarital relations, which are wrong. Magic and religion were used by parents to make their children safe, by healers to help their patients recover, by witches and sorcerers to injure individual enemies, by hosts and guests for mutual security. Even when an individual intends to influence the behavior of another conscious individual by specifically social methods, without using any magical power, either his own or a god's, his action preserves some sacred significance, if it is intended to make the other individual behave in conformity with the order instituted or sanctioned by the gods. Thus, religious education of the young and religious conversion by persuasion of adult sinners are definitely not profane activities; yet there is often no clear dividing line between them and moral education of the young and moral reform of adult offenders, except where ideas of moral goodness and badness have become completely secularized.

The main difference between public and private activities which has affected the history of social thought is that the public activities were supposed to be ordered and controlled by rulers with supreme authority and unchallenged power over all members of the group, while the performance of private activities was left to ordinary human individuals acting on their own personal initiative. The contrast was clear when public activities were performed only at periodical tribal meetings under the guidance of high magicians and chiefs and had an essentially sacred character, while between these meetings interindividual activities went on without interference from tribal authorities, unless something occurred which was supposed to affect the welfare of the tribe as a whole, like a notable transgression of religious or moral prohibitions.

The contrast became radical with the development of states ruled by kings who combined the roles of high priests and war lords; it persisted even when, as in republics, the roles of rulers of states became partly secularized and subdivided among the many individuals functioning as members of the government. All the activities of royal subjects ordered by the king, or by those agents to whom he delegated directly or indirectly some of his authority, were public; whatever activities were not included in this order remained

¹⁷ Cf. Alfred E. Crawley, *The Mystic Rose* (New York: Macmillan, 1927).

private, though they might at any time become a matter of concern to the king or his delegates if they affected the public order.

So long as the function of the king was that of supreme creator or guardian of public order, there was little opportunity for the development of any comparative objective reflection about him. Either he was successful in creating and maintaining public order—and this obviously meant that he knew all about it and did not need the guidance of any thinkers—or else he failed; and this meant that he had neither wisdom nor power and that some creative hero endowed with both should take his place. Kings, indeed, did use advisers, selecting them from among experienced specialists in public activity; but such advisers were regarded as assistants of the king, helping him build and maintain public order. Sometimes the assistant rather than the king was considered the real builder and even extolled as a hero, like Richelieu or Bismarck. The emergence of comparative investigation of public order by independent thinkers, who were neither rulers nor assistants of rulers but nonetheless tried to function as intellectual guides of rulers, is a late historical process which we shall discuss in our next chapter. Few rulers have followed such guidance.

As a matter of fact, the only kind of comparative investigation in the public domain which rulers have appreciated and stimulated when states became too large for anybody's direct observation has been geographical or statistical. Geographical surveys of state territories were made forty centuries ago; and statistical surveys, beginning with the enumeration of warriors, workers, slaves and peasants, domestic animals, houses, or agricultural and industrial products, were well developed in ancient Egypt and Babylon, and some documentary evidence of demographic statistics is found in the sacred books of other cultures. The character of this information is significant; for in a statistical survey, people (just as cattle or inanimate technical products) are not viewed as a united group of interacting members, but as an amorphous mass of passive objects of governmental activity. Out of this mass, statisticians chose and enumerated objects characterized by certain indices which made them fit for specific governmental actions: sex, age, social status, capacity for work, fitness for military service. To this very day, the current definition of the state as a combination of three components—territory, population, and government—preserves this old conception; government being the ordering agency, and population the amorphous passive mass of living beings which is being ordered.

Of course, a ruler needed more than a knowledge of the human masses which could be controlled by the causative power of his will. Inasmuch as he used auxiliary agents (assistants and delegates) to control the masses and to counteract the activities of hostile agents (political opponents, foreign rulers, perhaps traitors), he had to have some special knowledge about those

agents, their abilities, their manifest tendencies, their hidden motives. Such knowledge did not necessarily include explicit generalizations. Indeed, successful kings and heroes were supposed to possess intuitive personal knowledge of the persons whom they selected and used as their helpers as well as of their individual enemies, while the lack of this intuitive knowledge often explained the failure of rulers who delegated power to bad or weak men or misunderstood the intentions of their enemies.

No psychological generalizations could take the place of such intuition; those who had it did not need psychological guidance, those who lacked it were beyond all help. Later, social thinkers who wrote for the guidance of rulers usually did include psychological advice meant to guide rulers in selecting their assistants and dealing with their enemies; but by then there already existed a considerable body of psychological knowledge agglomerated throughout thousands of years. The source of this knowledge can be clearly traced to comparative reflection about private social activities.

Moral conditioning of reflection about private social activities

Individuals who do not perform important public functions, whose social actions do not affect large groups, but only other individuals, unlike rulers or heroes, are not above criticism and advice from thinkers. They are mostly ordinary people, unequal in personal qualities, status, and influence, and often needing the intellectual guidance of wiser men who have done some comparative reflecting about human relations.

Such practical comparative reflecting appeared very early. Originally, it probably was done and still often is done by old and experienced men and women, spontaneously functioning as advisers of less experienced individual agents, telling them how to deal successfully with individuals who are the objects of their actions. Numerous maxims and proverbs contain the generalizations of those primitive sages.¹⁸ Later, some thinkers specialized in this kind of advice by virtue of their professional roles. Thus, priests were often sages, and much of their social wisdom found expression in sacred books.¹⁹ Eventually professional social thinking and advice became partly secularized by philosophers and psychologists.

There is an obvious difference between this practical reflection for the guidance of social agents dealing with human individuals and technological ¹⁸The persistence of this wisdom in civilized societies is well known. See *The Oxford Dictionary of English Proverbs*, compiled by William G. Smith (Oxford, 1935); and *Le Roux de Lincoy, Le Livre des proverbes françois* (Paris, 1859), with more irony than in English proverbs.

¹⁹We found social advice by wise religious men in the *Sacred Books of the East*, although not so much as we had expected. In the Bible, more such advice is contained in Proverbs than in any other part. It is often difficult, however, to separate practical advice concerning the most efficient ways of dealing with human beings, from theological and ethical norms.

reflection for the guidance of technical agents dealing with natural objects. Since in the latter kind of action only one human agent is involved, the technological thinker obviously takes his point of view; but because the object of a social action is also a human agent, the thinker who reflects about cases when two human agents simultaneously or alternatively act upon each other might take the standpoint of either of them. However, since his thinking is meant to guide a particular agent, to indicate how that agent can successfully achieve the results he intends to achieve, he will take the point of view of that individual in whose success he is primarily interested, and conceive the other individual as an object who should be made to react as the first agent intends him to react.

Generally speaking, practical social thinking as expressed in proverbs, maxims, and written generalizations is morally biased. Social thinkers usually take the side of those social agents who are morally right by the standards of the thinkers, not of those who are wrong; at least, very little advice to the wicked was socially preserved before the appearance of philosophic skepticism. Comparative social reflection is primarily intended to serve individuals who function as guardians of traditional mores or who wish to introduce into personal relations a moral order conceived by a god, a prophet, a social reformer.

So long as the thinker's ideas of right and wrong correspond to social patterns unquestioningly accepted by those whom he wishes to guide, his moral bias is unreflective. For instance, for thousands of years in patriarchal societies, social wisdom intended to guide parents in dealing with children took for granted the principle of paternal authority as the moral foundation of well-ordered family life. In societies with an organized priesthood, the agglomerated social wisdom transmitted by priests to priestly candidates for their guidance in dealing with laymen takes for granted the absolute validity of the moral standards and norms of which the priests are exponents and the right of the priests to control the behavior of laymen.

In complex and changing societies with conflicting interests and beliefs we find social thinkers on opposite sides with divergent ideas of right and wrong. Thus, even in early historical periods—along with practical wisdom meant to guide masters in controlling servants, priests in controlling laymen, nobles in handling commoners—there were a few popular proverbs, maxims, and tales advising servants how to influence masters, laymen how to act in relations with priests, peasants how to deal with nobles. While folklore and old-book wisdom are full of advice by men to men telling them how to deal with dangerous, recalcitrant, or rebellious females, there must have been considerable traditional wisdom guiding women in their relations with men; certainly high-class courtesans in antiquity, during the Renaissance, and in modern France were well instructed in masculine psychology. In recent

times, wise women advising other women how to deal with males have become more numerous, probably more influential, and undoubtedly more original than the old-fashioned masculine advisers.

However, awareness of the existence of different standards of right and wrong in human relations did not eliminate moral bias. Thinkers representing opposite sides in social conflicts combined practical advice with ethical disputation. They tried to prove that their own ideas were ethically right and that the agents who followed their advice would promote moral order, while the ideas of their opponents were ethically wrong and if applied in practice would result in moral disorder. Such an attitude precluded any comparative investigation of the various kinds of moral order in human relations. That which is wrong cannot be compared with that which is right. If order means conformity with an absolutely valid moral pattern, any behavior which does not conform with that pattern is disorderly behavior. In short, moral conditioning of practical social wisdom tended to prevent the development of sociological generalizations about *social order* comparable to technological generalizations about natural order.

But it did not interfere with the development of psychological generalizations about human individuals as objects of social activity.

The origins and results of practical psychology

A social thinker usually assumes that social agents—parents, masters, priests—know what is morally good and what is morally wrong, what they and their social objects—children, servants, laymen—ought to do and ought not to do. He takes for granted that these agents have the necessary means to influence their objects. And yet he may question their ability to use these means effectively, to make their social objects behave as they ought to behave, and to prevent them from behaving as they ought not to behave. Good intentions and adequate means are not enough to achieve success in dealing with individual human beings, for they are sometimes apt to react differently than the agent wants them to react. Of course, the failure of a good agent to influence a human being in a desirable way may be explicable by the badness or wickedness of this being; as we mentioned before, such an explanation is quite often used to account for disturbances of moral order. But it cannot be used universally. For if a human being is judged unreservedly and incorrigibly wicked, nothing can be done except to cut him off from all social relations with normal people by excluding him from social life. This is an extreme measure, resorted to in only a small minority of cases: infants or adults possessed by evil mystical powers and secular criminals. Most human beings are sometimes good and sometimes bad, or good in some respects and bad in other respects, or good in relations with some people and bad in relations with other people; and they can become better or worse

in the course of time. In nonethical terms, a human being may react to similar actions positively or negatively on different occasions, or react positively to one kind of actions by the same agent and negatively to a different kind, or react positively to one agent and negatively to another; his positive reactions may increase and his negative reactions decrease, or vice versa.

Therefore, success or failure in dealing with human individuals is found by thinkers to depend on the agent's ability to predict their reactions to specific actions of his. This ability is supposed to depend primarily on the agent's knowledge of the permanent psychological dispositions, characteristics, or traits of those human beings whose behavior he wants to control. Such knowledge is provided by thinkers who compare the behavior of human beings at different times and draw conclusions about their future behavior from their past behavior.

The practical origin and significance of psychological generalization is manifested, first of all, in the evaluative meaning of those terms which denote psychological characteristics or traits. To this very day, in every modern language, most of the adjectives used to characterize human individuals psychologically connote positive or negative valuations. This indicates that the behavior of human individuals denoted by such words has not been analyzed and compared according to theoretic standards of objective factual knowledge, but classified according to the standards of desirability or undesirability current in a given culture. Some of these adjectives which now appear to be neutral are in fact ambivalent, which indicates changing or dual standards of personal valuation, and almost every one of them has an antonym. The evaluative significance of each of such anonymous terms will be readily discovered if they are applied to different classes of human individuals. For instance, "bold" and "timid" in the abstract seem merely descriptive terms, but when applied to different categories, to men or to women, to businessmen or to unemployed workers, their ambivalence becomes obvious.

This example points to another old, widespread trend in psychological thinking which has not disappeared even in modern times. Most of the early psychological reflection and much of the reflection still current is concerned with specific classes of human individuals already distinguished not by previous psychological comparison, but by social status in relation to other individuals in a given society. Individuals of each class are ascribed psychological characteristics which are supposed to make them similar among themselves and different from individuals of other classes. Such a class may be further subdivided into psychological types with contrasting traits in addition to their basic common characteristics.

In every culture, we find people divided according to age and sex into at least seven classes: little children, young boys, young girls, adult men, adult women, old men, old women. Individuals belonging to one of these

classes are supposed to possess common and distinctive psychological traits, though certain typical differences may be found within the class. Much of this is common-sense knowledge; yet the existence of explicit generalizations indicates that many social agents dealing with individuals of a certain class, especially a class different from their own, presumably need to be taught or reminded of this knowledge by its more competent bearers.

Even today, a considerable proportion of psychological generalizations concerns distinctive primary characteristics—intellectual, volitional, and emotional—as well as typical secondary differences of the lower-age classes, and are intended to guide parents and educators. Although these classes are predominantly defined in terms of chronological age, yet classification by social status still influences psychological research. Thus, preschool children, children in successive grades of primary school, high-school students, and college students are often investigated separately.²⁰ The psychology of women as distinct from the psychology of men still survives, and its practical significance is manifest whenever psychological generalizations are used to draw conclusions about the status of women—either defending or criticizing their traditional subjection to men.²¹

Cutting across classifications by age and sex, we find in many nonliterate societies a classification by clans or gentes. Individuals belonging to a clan or a gens are sometimes ascribed psychological traits which differentiate them from members of other clans or gentes and are presumed to be hereditary traits. This kind of psychological characterization of members of

²⁰ Of course, modern educational psychology is no longer based on evaluative generalizations, but constitutes an application of the agglomerated results of theoretic scientific research to practical educational problems. Still, it is sometimes difficult to eliminate the influence of the old evaluative approach.

²¹ There are considerable differences in the psychological generalizations of men about women. Some generalizations contained in the *Sacred Books of the East*, in the Bible, in the works of early Christian Fathers indicate negative valuations of women in general. E.g., "Women are naturally wicked." *Sacred Books of the East*, XXV, 330. See Frazer, *Folklore in the Old Testament* (New York: Macmillan, 1923), for the misogyny of the author of the second story of creation. Usually, however, women are divided into two categories: women as wives and mothers, essentially good and seemingly devoid of sexual interest; and women dangerous to men—whores, wantons, adulteresses—who are all negatively valued and characterized essentially by their sexual interest. Later generalizations of secular wise men are not so simple. See, e.g., Pierre B. de Brantôme, *Lives of Fair and Gallant Ladies*, where virtuous wives and mothers are taken for granted and not discussed; at the other extreme are "harlots, base at heart." The work is devoted to "high-spirited," "bold," "loving" ladies, by no means virtuous, but certainly positively valued. Very different is the work of William Alexander, *The History of Women*, 2 vols. (London, 1779), "composed only for the amusement and instruction of the Fair Sex." Besides much good advice, it contains generalizations about the characteristics of women at different historical periods, about the influence of education, and some rather critical comparative generalizations about the opinions of men concerning women.

The most radical classification of mankind by sex into two psychological categories, completely different in their whole inner essence, is that of Otto Weininger, *Sex and Character*, English translation (London-New York, 1918).

genetic groups also continues throughout history. For instance, members of every Scottish clan are supposed to have a distinctive psychology. Family histories and books of heraldry contain characterological generalizations about bearers of certain family names, and many recent works have tried to discover common and distinctive psychological features among the descendants of certain ancestors, so as to prove the importance of heredity.

In collectivities with a class hierarchy, where every class level includes individuals of both sexes and all ages, classes are supposed to differ in psychology as well as in status. Slaves have generally been considered to have a distinctive psychology; and in the Middle Ages, nobles and commoners were ascribed very different psychological characteristics, so much so that they were often supposed to have descended from different ancestors. In India, alleged psychological differences between the four traditional castes were sublimated in the famous myth according to which each caste originated in a different part of Brahma's body: Brahmans from his head as the seat of wisdom, Kshatriyas from his breast and arms as the sources of bravery, Vaisyas from his belly, Sudras from his legs.

Such generalizations persist in common-sense thinking, although by now psychological generalizations of lower-class thinkers about upper classes are as popular as those of upper-class thinkers about lower classes, if not more so. Generalizations about the psychology of the nobility by some ideologists of the French Revolution were as sweeping as those of the nobility about villains in the twelfth century; the psychology of the capitalist class, as described by proletarian thinkers, counterbalances the psychology of the masses, as characterized by the elite.

Since the middle of the nineteenth century, many psychologists have assumed the existence of class psychology and done some more or less—rather less—scientific investigation, starting from this assumption. By then, of course, it was well recognized that no psychological characteristic was exclusive, limited to one social class, and universally found among all individuals of this class; all that could be claimed was that the majority of individuals of a class possessed it or did not possess it. And this could be exactly ascertained by statistical methods. Niceforo's theory of the psychological inferiority of the lower classes; Galton's statistical findings in his *Hereditary Genius*, indicating that the majority of intellectually superior individuals came from the upper classes which formed a minority in English society; Woods's investigation of royal families, tending to prove that this highest social class contained a larger proportion of psychologically superior individuals than any other: these are instances of this approach.²²

Another early and still familiar social category concerning which psy-

²² Alfredo Niceforo, *Les Classes pauvres* (Paris, 1905); Francis Galton, *Hereditary Genius* (London, 1869); Frederick Adams Woods, *Mental and Moral Heredity in Royalty* (New York: Holt, 1906).

chological generalizations abound is that of outsiders ethnically different from participants in the collectivity to which the psychologizing thinkers belong. In many collectivities with few outside contacts, sweeping generalizations about all foreigners are still current, based on the behavior of visiting strangers. When contacts are relatively frequent, generalizations become more specific, applying to the members of particular ethnic groups who live in adjoining areas. Most tribal groups and folk-communities have traditional views about the psychology of other tribes or neighboring communities with different folk-cultures. With expanding communication and transportation, such generalizations are extended to large national collectivities. Compare, for instance, English generalizations about the Germans, the French, and the Spaniards, going back to the fifteenth century, with French generalizations about the English, the Germans, the Spaniards, and the Italians.

Migrations stimulated this kind of psychological thinking, both among migrants and among natives. Take the views of American pioneers and frontiersmen about the psychology of Amerindians generally and about certain Amerindian tribes specifically, of the British about East Indians, of the Boers about South African natives, of Western traders about the Chinese; and, reciprocally, the psychological conceptions of the Chinese concerning Westerners, of East Indians concerning Englishmen, of Amerindians concerning whites, of native white Americans concerning new immigrants. Generalizations of natives of various cultures about the psychology of Jews, who are considered foreign immigrants even after several centuries of residence, offer the best-known and most conspicuous examples.

Where cultural differences seemed more or less associated with visible differences in bodily appearance, psychological generalizations (mainly derived from culturally conditioned behavior) became correlated with biological generalizations. As a result, members of a foreign group were conceived as belonging to a race, an organic species whose basic psychological characteristics were hereditary and therefore changeless; only secondary traits responded to changes in culture.²³

When anthropologists and, later, psychologists took over these popular conceptions, at first they made little effort to distinguish between the classifications of human individuals by their cultures and by their organic characteristics. Many anthropological monographs, after a preliminary survey of the geographic area in which a certain group lived, characterized the physical type of the people, continued with their psychological characterization

²³ Modern generalizations about racial psychology are now so familiar that we need not discuss them. Cf., for a brief survey, F. H. Hankins, *Demographic and Biological Contributions to Sociological Principles*, Part IV, "Racial Differences"; Barnes, Becker, and Becker, *Contemporary Social Theory* (New York: Appleton, 1940), pp. 296-307. For the history of racial conceptions see James Bryce, *Race Sentiment in History* (London, 1915).

(mainly based on their distinctive cultural patterns of conduct), and then proceeded to describe their culture in detail.²⁴ This confusion still persists. The term "race" is widely used in the United States in referring to the Jews, the Germans, the Italians, the French, the Swedes, the Poles, the Mexicans, the Chinese, with the implication that the individuals so designated form a logical class, combining specific cultural traits with specific biological traits. Much psychological thinking and some research is still carried on with the purpose of determining the typical psychology of the individuals of each race in this sense.

However, some efforts have been made to distinguish between the two kinds of classification. Thus, the French "psychologie des peuples," developed by G. Le Bon, Alfred Fouillée, and others, emphasizes cultural rather than biological subdivisions;²⁵ but present American studies of the psychology of American Negroes are necessarily concerned with the "Negro race" in the biological sense, since the descendants of imported African Negroes now participate in the same culture as the descendants of European white immigrants.

With growing functional specialization of individuals and groups, occupational classes became another well-known field of psychological generalizations. Farmers, warriors, craftsmen, and merchants were ascribed specific psychological traits conditioned by their occupations, and individuals engaged in other occupations had to know these in order to deal with them successfully. In occupations which were not altogether hereditary, and especially in those that were considered desirable and requiring considerable preparatory training, candidates selected for this training were expected to show at least potentially those psychological characteristics which were considered necessary for the effective performance of occupational functions. This enlarged the scope of the psychology of children and adolescents, and was the beginning of psychotechnics and occupational guidance.

The evaluative significance of psychological concepts, combined with the practical interest of psychological thinkers in specific social classes or groups, led to the well-known disagreements between psychologists representing socially conflicting points of view. In fact, most popular generalizations about the psychology of any class or group express the positive or negative

²⁴ As a typical example of this approach, we may mention Walter W. Skeat and Charles O. Bladgen, *Pagan Races in the Malay Peninsula*, 2 vols. (London, 1906).

²⁵ Gustave Le Bon, in his *Lois psychologiques de l'évolution des peuples*, is still influenced by biological racism. But Alfred Fouillée, in his *Esquisse psychologique des peuples européens*, 2d ed. (Paris, 1903), considers the cultural aspects, manifested in the history of peoples, as the main "dynamic elements" of their psychology. The most original attempt, however, to reach a conclusion about national character, based entirely on culture, is that of Richard Müller-Freienfels, *The German, His Psychology and Culture, An Inquiry into Folk Character*, trans. by Rolf Hoffmann (Los Angeles: The New Symposium Press, 1936).

prejudices of those agents whose point of view the thinkers have accepted: If the prejudice is positive, the class or group is ascribed with predominantly good, desirable, superior characteristics; if negative, its characteristics are predominantly bad, undesirable, inferior. And since prejudices vary and change, every popular psychological judgment is apt to be contradicted by other psychological judgments.

Classificatory generalizations about human individuals have been supplemented or modified by causal generalizations. After an individual has been defined as possessing certain psychological characteristics, so long as his behavior apparently manifests these characteristics, no additional psychological reflection is needed; it is just his nature so to behave. But if he unexpectedly does something which is not in accordance with his nature, which neither he nor other individuals of his type usually do, this raises a problem.

Of course, his original definition may have been erroneous. If the agent who defined him did not know him personally and ascribed to him certain characteristics only because he belonged to a social class or group in which these characteristics prevailed, he may be an exception. There are exceptional women with masculine psychological traits, and some men with feminine traits; foolish oldsters and wise youngsters; slaves with traits of freemen, and freemen with slavish traits; sinful priests and saintly laymen; miserly, cowardly, or disloyal nobles, and generous, brave, loyal commoners. But if an individual who has already in his past behavior manifested certain typical traits later behaves in a way which is not true to type, this can only mean that some special cause must have been active, affecting his disposition, making him act differently than he would otherwise have acted.

Such a cause may be designated by the term "motive," in the popular sense in which the word is widely used. When an obedient child disobeys or a disobedient child willingly obeys, when a modest maiden behaves immodestly or a wanton woman shows modesty, when a coward bravely faces danger or a courageous man runs from it, when a fool acts cleverly or a clever man foolishly, when a miser gives money away or a generous man behaves like a miser, when a lazy person spontaneously starts to work or a hard-working person loaf, there must be some motive to explain such atypical behavior.

Causal generalizations about the influence of motives partially cut across classificatory generalizations, inasmuch as individuals of different types may be influenced by similar motives. However, some individuals are found more susceptible to the influence of specific motives than others, and high susceptibility to a certain kind of motive is apt to be considered indicative of a certain psychological trait. But individuals who are easily swayed by various kinds of motives cannot be easily subdivided into definite classes. Consequently, in popular psychological thinking, relationships between classifica-

tory generalizations on the one hand and causal generalizations on the other are neither clear nor consistent.²⁶

Thus, when systematic theoretic thinking about the factual order of social reality began, all it found was an agglomeration of common-sense psychological knowledge about human individuals. While this knowledge was considered practically useful, it was much more limited in scope, much less definite, and less detailed than technological knowledge about natural reality. Furthermore, while the technological generalizations, developed in various fields of material technique, were unconnected but not contradictory, practical psychology was full of contradictions. Nevertheless, it became the foundation of theories which have endured for thousands of years. In a later chapter we shall briefly survey the theories which emerged from practical psychology. Only in relatively recent times has a new scientific approach to individual psychology gradually developed, and it has not yet eliminated the old approach.

²⁶ Perhaps one of the most interesting collections of practical psychological generalizations, based on an analysis of motives, is François de La Rochefoucauld's *Réflexions ou sentences et maximes morales*, complete ed. (Paris, 1868): differences in nature are taken into consideration (as between men and women, wise men and fools, brave men and cowards), but most reflections are about the similarities of human motivation—not universal, but most frequent; and motives, like traits, are evaluated positively or negatively.