THE ORIGIN AND IDEALS OF HUMANISM AND REALISM:
THEIR RECONCILIATION IN PESTALOZZIANISM.

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Contents.

Introduction ...................................................... 2

Chapter I. Education in Greece .................................. 3

Chapter II. Roman Education ..................................... 11

Chapter III. Education During the Middle Ages .............. 16

Guiding Principles of the Humanists ......................... 21

Chart I. Educational Reformers, opposite .................... 23

Chapter IV. Humanistic and Realistic Ideals ................... 23

Guiding Principles of the Realists ......................... 33

Guiding Principles of the Naturalists .................... 41

Chart II. Indicating Origin of Naturalism, opp. ............ 44

References Consulted ........................................... 447
Introduction.

The purpose of this investigation is to ascertain the various educational ideals held by the historic nations previous to the time of Pestalozzi; and to learn by what means these aims were sought to be attained; and to compare the principles underlying each with the principles of Pestalozzi.

The first part of this may be accomplished by a study of the curriculum typical of each succeeding period in the different countries, by an examination of the methods of teaching, and by ascertaining the ideals set forth by the writers on education. The second point will be acquired by an examination and a study of the curricula and of the practice of teaching.

The first three chapters trace education through the great republics of Greece and Rome and then through the Middle Ages. In the education of these early periods Humanism had its origin. After tracing the origin of Humanism, the conflict of the different schools is taken up in chapter four, thus completing the sketch of educational history.
Chapter I.

Education in Greece.

Little of importance is known of the education of the Asiatic nation which preceded Greece. All the important knowledge as well as the educational principles inherited by modern nations came to us directly from Greece or indirectly through Rome or Spain. So that all that is necessary for us to do is to take up the education of the Greeks and the Romans in order to become acquainted with the inheritance of Modern Europe.

We catch only glimpses of Greek education from the time of Homer (1000 B.C.) to the period of Socrates (469 B.C.). We know, however, that just previous to the latter date, a certain definite course was in use in the various schools. And since it was the established course, we may assume that it had been the customary curriculum of Greece for a considerable period preceding this time,—probably for centuries.

About the time of Plato and of Socrates, we find that the Greeks were an educated and a cultured people. They had produced a literature that is classic to this day. They had developed arithmetic, astronomy and geometry. Music was a common pastime, and the lyre, the cithera and the flute were their chief instruments. Demosthenes, the world's greatest orator, was a contemporary of these men. Evidently all this was not
the growth of a night, but the development of centuries.

The aim of a system of education will be disclosed by a careful examination of the curriculum and a study of the state of society in which it is in vogue. In the earliest period of Grecian history of which we have record, the subjects deemed necessary for the training of Greek youth were music and gymnastics. But the term "music" had a variable significance. Down to about 422 B.C. it included music and poetry, according to some writers, but according to others the division was music and grammar. Pythagoras, in his writings on education about two hundred years previous used music as a collective term embracing letters, arithmetic, geometry, astronomy, music and philosophy. Plato, 429-348 B.C., followed this classification in his works. Aristotle a contemporary and pupil of Plato used music in its modern sense. His course embraced 1. Letters, 2. Music, 3. Drawing. But under letters he included grammar, rhetoric, dialectics, arithmetic, geometry, and astronomy. But these writers gave only their own theories instead of the curriculum of Greece. This we are told embraced the following subjects: reading, writing, arithmetic, grammar, literature, geography, poetry, music, rhetoric, philosophy, and by inference, geometry, astronomy and drawing.

1. Educational Theories, - Browning, p. 11.
2. Aristotle and Ancient Educational Ideals, p. 239.
3. " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " 
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Greek education is typified by the education of the two states of Athens and Sparta. In many respects the education of these two cities differed materially. It seems that previous to the time of Solon, about 600 B.C., the training of the body was the chief concern of Athenian parents. But Solon declared that children ought, above everything else, to learn "to swim and to read", thus putting intellectual education on a parity with physical. The Athenian state provided for physical education, but left, for a time, the training of the intellect to the parent. Gradually intellectual education in Athens assumed importance till it reached its highest form of aesthetic and intellectual culture in the time of the great philosophers. Physical education now occupied only a secondary place in the Athenian scheme, although it was never neglected. In Sparta, physical strength and martial vigor were cultivated for the sake of the chief perfections aimed at. Mind was neglected, cultivating the body. Men were taught and trained in Athens they were trained to think, and to feel beauty of form and grace of movement were the ideals.

In Sparta vigor of action and manly courage were the ideals.

The first seven years of the boy were spent in the nursery where his senses were cultivated. At the age of seven he was placed in school. Here he learned to read and to write,

Compayre's History of Pedagogy, p.19.

Compayre's History of Pedagogy, p.18.
metic, literature, and geography. At the age of about twelve or fourteen, he entered the gymnasium, remaining till he was about eighteen. Here he studied poetry, music, rhetoric, philosophy, and mathematics which probably included geometry and astronomy. At the age of eighteen, the Greek boy entered the military service where he spent two years under the strict surveillance of superior officers. He must here prove that his education had fitted him for citizenship. If the trial was satisfactory, he was admitted to that honor.

The methods of instruction are, in some cases distinctly known. In the nursery the beautiful myths and legends of Greek religion, of national wars, and of mythology were learned. Reading was, doubtless, taught by the alphabetic method. Writing was learned by tracing copies of the master inscribed on waxen tablets by means of the stylus. Copies were sometimes carved on boards and traced in a similar manner by the pupil. The Iliad and the Odyssey were the principal reading books. Many portions of these were copied, learned and sung by the pupils, or recitation was perfected.

Mathematics was developed to a considerable degree of perfection. A system of finger notation was used, which was capable of expressing numbers up to about ten thousand. Each joint and movement of the finger signified a certain value. Two forms of the abacus were

Myers' Ancient History, Greece, p. 346.
in use. One, a tray covered with dust or sand was used as a slate. Another form was a frame on which stones were strung on wires or strings like beads.

Grammar, literature, geography and history were learned from the reading books, - the Iliad and the Odyssey. Hence it will be seen that the chief educational works of the Greeks were their standard literary productions. At the same time that the boy learned of the deeds of the heroes of Greece, he learned geography by following the movements of the heroes. He also learned to take pride in these heroic deeds, and thus, lessons of patriotism were inculcated. By a study of the literary beauty of the compositions his aesthetic nature was cultivated, and from the same source he learned grammar and rhetoric. Thus we see that the Athenian boy could complete his whole course of education, except mathematics and philosophy, from the fresh and charming stories of the Iliad and the Odyssey.

At the same time that the Greek boy entered the primary school, he entered the palestra, the gymnasium for boys, and began his physical training. This physical culture continued throughout his entire course receiving greater emphasis later in the course.

The Greeks looked carefully to the moral education of their children, deeming it the most essential part of education. Aristotle says,
"We all have a preference for what we first know; for this reason every­thing that savors of meanness or ignobility ought to be made alien to children."

When we take into consideration the fact that, in Greece, about four-fifths of the entire population was slave, and that the government of the state fell entirely into the hands of the free citizens, that the education of women was limited and that was left in private hands, and when we consider further, that the defense of the state fell upon the free citizens while agricultural and commercial pursuits were usually considered beneath the dignity of a free citizen, we can see why the course of instruction laid so much stress upon gymnastic and humanistic studies. The aim was to train the mind and the body equally, and to prepare the citizen for the discharge of his military, civil, and social duties, and to spend his leisure in a profitable and becoming manner.

By gymnastic training the Greek became an able defender of the state. By mental training he learned to manage the political affairs of the state, and to acquire influence among the people and in the senate. The time not occupied in his actual duties the Greek spent as leisure. His education prepared him for leisure as well as for business. For this purpose he learned to sing and to play on the lyre or cithara. To prepare men for these three functions, for military and civil duties and for leisure, seems to have been the aim of Greek edu­cation.
Aristotle says in his works, the aim should be to produce men independent but respectful, freedom-loving but law-abiding, healthy in mind and body, clear in thought, ready in action, and devoted to their families, their fatherland and their gods; to enable men to occupy worthily and sociably their leisure time quite as much as to prepare them for what might be called their practical duties in family, society and state."

Discipline throughout the school course was severe. The rod was the customary incentive to obedience and diligence. The fear of punishment and the hope of reward were considered legitimate means of encouragement to the pupils. Under the circumstances we may infer that school life was not one of unmitigated pleasure to the Athenian boy. He may have found in the palestra recompense for the sufferings of the school.

From our knowledge of the history of Greece and from the instruction given, we can see that Athenian education sought to imitate the beautiful. Most of their studies cultivated the aesthetic side of man. All the branches except mathematics and philosophy contributed more or less to the aesthetic nature. Any labor that tended to mar the beauty of the body was disgraceful. The Athenian would forsake even the music of the flute because it marred the symmetry of the face to play it.

/ Aristotle and Ancient Educational Ideals, p.71. /
The results of this course of training and instruction were men of a high type indeed. The Greek was a pious individual. He was sociable, honorable, and capable of the firmest friendship. The Greek was well fitted to fill his place in life. More than that: His leisure enabled him to devote much time to original research and study for which his education fitted him. The development of mathematics, the sciences, eloquence and literary art, as well as sculpture and painting and the science of free institutions all testify to the industry and ability of the Greek.
In republican Rome down to about B.C.146, the system of education seems to have been very similar to the Spartan type, so that for our purpose, we may consider it its exact counterpart. Here education was entirely practical.

Rome, in her struggle for existence and for dominion over the surrounding tribes and nations, valued her men as so much bone and sinew. Her citizens were valued as so many soldiers. It was to the advantage of the state to have them strong, courageous, patriotic and obedient. To this end a severe course of athletic training was of first importance. This was accompanied by a course in religious training, and a course in Roman Law. With this sort of knowledge as a basis of action, the citizens of early Rome became the bravest and the most sturdy and patriotic that ever lived. Like Sparta, Rome was a nation of action. Patriotism and aggression seemed to increase with the capacity for endurance. The great Campus Martius took the place of the Greek palaestra and the gymnasium. Here the Roman youth vied with each other in feats of strength and agility. Here, also, they learned to know each other, and became united by the strong bonds of a common country and a
common destiny. The result was that there was no deed too daring, no
march too toilsome, no service too arduous for a Roman soldier to un­
dertake for the sake of his country. This system produced a race of
men of action and of self-denial.

Compayre ascribes the desirable results of Roman education to four
principal causes: the firm family discipline of the absolute father;
the gentleness and mellowing influence of the mother, due to her ex­
alted position in the family; the influence of the peculiar religion
of the Romans, surrounding the Roman, as it did, with gods and goddesses;
and lastly, the influence of a knowledge of his country's legal code.

But after the conquest of Greece by the Romans, (B.C. 146), the in­
fluence of Greek learning and culture began to make itself felt in
Rome. Greek learning, Greek art, Greek philosophy, and the Greek language
became popular on the Tiber. These influences had a civilizing and
refining effect on the rude but sturdy Romans. The oratory of the A­
cropolis now echoed in the Forum, from the silver tongues of Cicero and
his contemporaries. Henceforth Athenian education took the place of
Spartan in Rome.

Towards the close of the third century B.C. the influence of Greek
education had begun to be felt in Rome. Public schools were then for
the first time opened, and the state assumed the responsibility of

/History of Pedagogy, p. 44.
educating the young.

At the age of seven the Roman boy was placed in the care of the literator, of whom he learned to read and to write. The same methods as those in vogue among the Greeks were used. Reading was taught by the syllabic method in place of the alphabetic used in Greece. "By degrees the easier poets were read and explained, great pains being taken always with the exact pronunciation. Next to reading and writing came reckoning. The fingers were made great use of. Each joint and bend of the finger was made to signify a certain value, and the pupil was expected to follow the twinkling motion of the teacher's hands as he represented number after number. The abacus of stones was also largely employed."

When the boy had finished the primary course under the literator or grammaticus, about the twelfth year he was handed over to the literatus or grammaticus, a teacher of higher grade, who taught him etymology, syntax, orthography, composition, poetry, history and Greek. Besides these, Latin and grammar were continued. A beginning was made towards the study of rhetoric. This branch was pursued under the Phetor. Philosophy, oratory, and criticism were studied under the literatus.

At about the age of fifteen or sixteen the young Roman assumed,
under great ceremony, the toga virilis, or garb of manhood. It was now
time for him to choose his calling. The following vocations were open
to him: law, politics, arms, oratory, and agriculture. Unlike the Greek
youth, the Roman was not hampered by prejudice. He might choose either
of these callings and follow it with dignity; and he was usually influ-
enced by the prospect of financial gain.

If the boy chose military life, he learned his profession in the
field. If he chose politics he placed himself under some prominent
senator and accompanied him and helped him in his work. Law was simil­
arily learned in the Forum and courts. Oratory was necessary to popu­
laritiy, and the young Roman devoted himself diligently to the mastery
of it. So prominent did eloquence become that at the time of Augustus
and later, oratory became synonymous with education.

Thus we see that after the introduction of Greek learning, Roman
education became the counterpart of that of Greece, with the addition
of the Latin language and literature. The chief modifications we dis­
cover are due to the emphasis of special branches, or aims. The Greek
aimed at the beautiful, and developed art. The Roman was practical, and
developed commerce, arms and law.

Thus we see that, in the educational systems of Greece and of Rome,
we find recognized the three-fold nature of education. Each developed
the physical, the intellectual, and the moral nature of the youth, and
to this end, a three-fold system of education was evolved. Sparta and
early Rome developed the physical at the expense of the intellectual; while Athens and imperial Rome developed the three-fold man. One striking observation presents itself. With the development of the aesthetic and the intellectual side of education in Athens and in Rome, effeminacy and immorality increase. The period of greatest corruption, in each case, followed or was contemporary with the period of greatest artistic splendor, and intellectual brilliancy. Whether the development of intellectual education was the cause or the result of this moral and physical degeneracy, or whether they were merely coincidences it is not my purpose here to discuss.

In education as well as in many other respects, we have not improved very materially on Greece and Rome, so far as results are concerned. Whatever changes have been made are rather in the instruction required and the modes of teaching than in the results sought to be attained.

In tracing the history of education through the Middle Ages and down to the present we shall observe a broadening of the subjects taught, and the final development of the science of pedagogy. Our attention henceforth must be largely devoted to a proper selection of studies, and to the proper presentation of the subject matter, and lastly, to deciding who shall receive education.
Chapter III.

Education During the Middle Ages.

During the second and third centuries of the Christian era, pagan education rapidly declined. The influence of Christianity, by exalting the position of woman, and by raising the esteem in which little children were to be held, caused a great change in the course which education was to take. Henceforth, the rich and the poor were fellow-passengers on the road to the same destiny.

Owing to the barbaric invasions from the north, and to the unsettled condition of the political affairs of the Roman Empire, and to the chaotic condition which followed its disintegration, little progress was made in western and southern Europe in educational matters for a period of about a thousand years. Not only was no progress made, but the ancient education was neglected and a period of dark ignorance settled over the minds of men. So dense and universal was this ignorance, that a man who could read and write was rarely found. Men sentenced to death were sometimes pardoned when it was known that they could read or write, because their lives were considered too precious to be sacrificed in this way. "In 1291, of all the monks in the convent of St. Gall, there was not one who could read or write. It was so dif-
difficult to find notaries public, that acts had to be passed orally."

But during this period, education was not entirely lost. In the cloisters and the monasteries a remnant of the ancient learning was preserved for the succeeding ages. Schools were annexed to the monasteries, where children of the wealthy, and especially those preparing for priestly orders might receive instruction. Besides these schools there was another system, the castle schools of the nobility. These two systems were the reverse of each other in their aims, and in their curricula.

In the cloister and the cathedral, the course consisted of the seven liberal arts, of which we made mention in Roman and Grecian education. They were grammar, dialectics, rhetoric, music, arithmetic, astronomy, and geometry. These were divided into two grades, the first three constituting the trivium, and the latter four the quadrivium. In the castle, the knightly course consisted of the seven free arts, riding, swimming, shooting with the bow and arrow, boxing, hawking, playing chess, and writing poetry. These courses differed in their aims as well as in the instruction given. That of the cloister was essentially ascetic, and had reference to the world to come. That of the castle was largely physical and aesthetic and prepared for enjoyment in this life.

The cloister considered the body essentially corrupt and persecuted it

History of Pedagogy, p. 68.
with stripes, and starved it by fasting. In the castle the body was exalted, developed and beautified. In the cloister the student might not look upon the face of woman; he was ruled by a severe hand, beaten, and persecuted. He must devote himself diligently and monotonously to the religious tasks assigned him. In the castle, a free and independent spirit was cultivated. Gallantry to the gentle sex was the chief aim of education.

Independent of both of these, a class of lay-schools grew up in the towns. The first of these was established about the beginning of the twelfth century. In these schools attention was given to branches bearing upon commercial life. Geography, history and arithmetic were emphasized. These schools are commonly known as burgher schools, or writing schools.

Of all these schools, the cloister and cathedral schools were the most influential. No advancement was made in them over Greek and Roman education, however.

As intimated above, this whole change in the course of educational aims was due to a change of sentiment among the people. The fathers of the church, by contrasting the corruption prevalent during the declining days of the Roman Empire with the purity and unselfishness of

Educational Theories, p. 50.
Painter, p. 110.
Christ, came to the conclusion that pagan education was the cause of this corruption, and as a consequence they were opposed to all things that savored of pagan education. This was apparently the cause of the neglect of mental development. They concluded that the body is the enemy of the soul; that in order to purify the soul they must purify the body. This was to be accomplished by the neglect and the abuse of it. All earthly pleasures were but so many snares intended by Satan to entrap the unsuspecting soul. Imbued with this conviction, and disgusted with the corruption on every hand, these devout men withdrew entirely, from contaminating contact with the world, and led lives of seclusion in order to meditate on heavenly things and to prepare their souls for enjoyment in the world to come.

Such convictions as these, whether they were right or not, had the effect of changing the whole drift of human thought and human education for centuries. Education must consist in learning only those things which enable men to lead holy lives. Songs, fastings, and prayers, humility, meekness and suffering were the cardinal virtues of this "other-worldly" system.

Children were no longer to be exposed to the elements and to wild beasts. But according to the Christian religion they were raised up in the fear and the admonition of the Lord.

Mark the contrast between the pagan and the early Christian educa-
tion. All this time education was under the control of the church. But the church mingled too much in political affairs to retain its absolute power. Men began to be discontented. The mind sought freedom, and the result was the breaking away from the narrow course of education of the church, - the trivium and the quadrivium, - and a return to the education of paganism. This first movement of education back to the old arts and the sciences of the Greeks, - the demand for Greek literature is known by the term Humanism.
Guiding Principles of the Humanists.

Aim:-- Intellectual and moral education through an acquaintance with classic literature.

1. Everything in pure Greek and Latin. Accept the spirit of ancient Latin, but no empty imitation of form.

2. Reason the queen and mistress of authority.

3. Education for the few, the clerical and the wealthy classes.

4. The ancient languages,—Greek, Latin, and Hebrew the basis, and the best available means of all true culture. There is no thorough scientific culture apart from the study of language.

5. The languages belong to the schools, the sciences to the universities.

6. Words before things.

7. Away with the bald epitomes and tasteless crudities of scholasticism.

8. Pagan literature reconciled with the true Christian spirit.

9. All teaching to be made perfectly clear and definite.

10. Little at a time, thoroughly mastered and frequently reviewed.

"Non multa sed multum."

11. Go from the known to the unknown.
12. Teach only as much abstract grammar as is necessary,- only the 
essentials at first.

13. The study of grammar must precede that of philosophy, history and 
ethics.

14. Teach composition-writing, on classical subjects in Latin and 
Greek.

15. Science may be studied, but chiefly for figures and illustrations.

16. Religion to be taught by interpretation of the New Testament and 
by committing portions thereof.

17. History, Geography and Natural History to be studied.

18. Education should begin early,— before the age of seven years.

19. Discipline should be mild.

20. Present everything in an agreeable way.

21. Adapt the subject-matter to the mind of the learner.

22. Carefully grade the studies according to the abilities of the 
pupils, especially the Greek and the Latin.

23. Memorize many passages of classic literature to cultivate literary 
taste.

24. Grammatical and rhetorical criticisms, memorizing and reproduc-
tion in writing and on the stage.

25. The Reformation Humanists favored popular education.
Chapter IV.

Humanistic and Realistic Ideals.

As stated in the preceding chapter, education was sadly neglected during the Middle Ages. This neglect was mainly due to two causes. The first was the attitude of the church towards pagan literature. In the second place, this was a period of great political and linguistic confusion. The modern nations were being formed from the barbarian hordes who had pushed into western Europe in their migrations westward. Various languages and dialects were spoken among these barbarians, none of which had yet been reduced to a settled form, much less to a written language. In these circumstances, with all the learning of the ancients in an unknown tongue, education among the nations of western and southern Europe, except Spain and the Eastern Empire, was practically inaccessible. All the learning to be found in what is now Italy, Germany, France, and Switzerland was treasured in the manuscripts at the monasteries and cloisters where the monks secluded themselves from the sinful world. Schools where the children of the wealthy might receive a superficial education were eventually established in connection with most of the religious institutions. In such schools the old *trivium* and *quadrivium* courses were taught, with a minimum attention given to merely practical subjects.
The discipline in these schools was shamefully severe; so much so that the institutions became veritable prisons in which the spirits of youths were broken, and where all were brought into servile obedience to the monks and priests. The pupils learned the catechism, the creed of the church, psalms, songs and chants in monk's Latin; and this was the substance of cloistral education.

Eventually, out of the promiscuous babble of barbaric tongues, the modern languages of Europe were evolved. Inventions and discoveries, and the crusades extended men's knowledge. With the increase of knowledge, commerce with foreign peoples had its birth, and new industries required a different sort of education to prepare men for the business of life.

Thus it happened that many of the people in the towns, who were commercially inclined, began to think that monastic education was not suited to their needs. This dissatisfaction, for a long time dormant and suppressed, finally took definite form in the establishment of burgher schools, to which laymen sent their sons to receive rudiments of an education. Here, studies were pursued which were supposed to have a bearing on practical life. These included arithmetic, geography, and history, with a minimum of Latin and the religious branches. This was the first attempt of the people to assume control of the education of their children. The break with the ecclesiastics was not made till necessity seemed to demand it. It was only when the people had been
long neglected and deceived that the mal-contents assumed sufficient strength to dare take this step.

Man is by nature conservative and will, usually, endure shameful oppression and injustice rather than rebel against the established order of things. But when an institution not only no longer subserves the interests of the people, but also becomes a source of oppression, unendurable, the people may be driven to overthrow it, be that institution political, religious or educational. The absolute right of the church to control educational matters being thus once called into question, it became easier for the people to question it again.

When the Turks overthrew the Eastern Empire in 1453, many of the learned fled for safety into western Europe, bringing with them many of the old Greek manuscripts which revealed the wealth of ancient Greek literature and stimulated a thirst for classic learning. Many of the Italian scholars learned to read Greek from these refugees, and a vigorous quest for manuscripts was made into the East. The result was that altogether a large part of the literature of ancient Greece was rescued from oblivion and was preserved for after times.

Some time previous to this, Petrarch being stimulated by Dante with a desire for Latin classics had instituted a similar but more extensive search for Latin manuscripts. Boccaccio, another enthusiast for ancient Latin, together with those just mentioned traveled up and down Italy searching the archives of cathedrals and monasteries. Their
search was rewarded by many musty manuscripts, which were carefully copied and sent broadcast over Europe to those who could appreciate their value.

Italy now became famous for Latin and Greek learning. Scholars from northern Europe came trooping across the Alps, to drink at this new fountain of learning. Florence became a center from which the new learning spread.

The church, especially the monks, knowing that this new learning would betray their own shallowness and superficiality in educational affairs, and show the monk's Latin to be impure and corrupt, and like the early Fathers, believing that pagan learning would be detrimental to morality, set about to oppose this revival of classic literature.

One of the earliest educators of northern Europe to espouse the cause of the new learning was Reuchlin. He did much for the revival of the humanistic studies, but was most interested in creating an interest in Hebrew. Erasmus, Melanchthon, Luther, Sturm, and Ascham were other educators who opposed the bad Latin, the impractical methods and curricula, and the cruel discipline of the schoolmen. These men, together with many others, believed the old trivium course, even when supplemented by the quadrivium was too narrow to answer the needs of practical life. They demanded that a more thoughtful course should take the place of the old custom of memorizing bad Latin, and philosophizing on trivial propositions which were typical of the schoolmen. They believed in the
efficacy of Latin as a culture study, but substituted the rich literature of ancient Rome and Greece for the superficial crudities of the Middle Ages. Erasmus was a great admirer of the classic writings of Greece and Rome and he became an accomplished scholar in the languages of those countries. He translated a number of valuable works into modern tongues, and translated some of the rich treasures of Greek literature into Latin, thereby making it accessible to a vast number of men who knew nothing of Greek.

Ancient Greek and Latin soon became popular through the efforts of such men as those already mentioned and of Thomas More, Colet and others. From these men originated that class or school of educators commonly known in educational history as Humanists.

One of the first of the Humanists to lay out a systematically graded course was John Sturm, who taught in the gymnasium of Strasburg. He divided his school into ten grades and arranged the courses so that each would prepare for admission to the next higher. This is, so far as is known, the first approach to a systematic classification of instruction, and it accomplished well what it was intended to accomplish. It gave an education according to the prevailing Humanistic notion and was adapted to the progress of the pupil.

The following table will show the branches pursued in the monastic courses of the schoolmen, and the course of Sturm at Strasburg.
Scholastic Curriculum.

Trivium
- Grammar (Latin)
- Dialectics
- Rhetoric

Quadrivium
- Music
- Arithmetic
- Geography
- Astronomy

Sturm's Curriculum.

Reading (in Latin)
- Writing
- Latin Grammar
- German or Latin Catechism
- Word Memorizing
- Composition of Latin Phrases
- Greek Grammar
- Greek Reading
- Dialectic
- Rhetoric

On account of the excellency of the school and the fame of the teacher, Straszburg drew thousands of students. Sons of nobles from various countries in Europe went to Straszburg to receive the superlative advantages here offered. The attendance sometimes reached two or three thousand. This Straszburg school over which Sturm presided forty-seven years, from 1537 to 1584, was one of the most conspicuous Protestant schools of the Humanists.

Within the Catholic church were the schools of the Jesuits. These schools became famous for their well-planned course and careful teaching. Many Protestants sent their children to these schools, and in this way much was done to regain for Catholicism, a large portion of the territory lost by the Reformation. The peculiar feature of these
schools was that they believed in classical education in the Greek and Latin languages, but the Latin differed from that of the schoolmen in being pure. The Protestant schools added Greek to this course of the Jesuits, as may be seen by reference to Sturm's curriculum. In other respects the curriculum was similar to that of the schoolmen, but the method of giving instruction was quite an improvement.

Thus we see that the Renaissance opened the way for the Reformation; that the pure Latin and Greek gave the people a pure Gospel; that the Reformation gave the people the first thoroughly organized schools the world has known. The theorists of this school of educators have given us some sound principles which have stood the test of four centuries. From the first burgher school, about 1100 A.D., to the election of Sturm at Strasbourg about 1537, great progress had been made in education. From a planless course, with no reference to classification, there had risen a well-graded system of education.

But even this course, admirable as it was in its way, began to be criticised. About 1620, Bacon published his "Novum Organum," pointing out the modern method of investigation by induction. Somewhat later Ratich brought forth his boasted plan of education which promised so much to his patrons in so short a time, and with less effort on the part of the learner than ever before. Learning was to be made easy. He was the first great teacher to begin with the mother-tongue. He divided his school into six grades. In the three lowest the mother-
tongue was to be used exclusively. In the fourth Latin was to be taken up and in the sixth, Greek. Arithmetic, singing and religion were also taught in the school of Ratich. His was an excellent plan of instruction and deserved better success than it received.

But the greatest of the reformers of this school began his work in the first half of the 17th century. Inspired by the works of Bacon and of Ratich, John Amos Comenius wrote his great educational work, "Didactica Magna". In this work he lays down a plan by which all men were to learn all things, and to learn them "easily, solidly, and certainly". Children were to begin education while young and before they had become contaminated by the world. This system was to solve the problem of education for all the ambitious youths of Europe. His course was to follow the order of nature. He considered education to be the acquisition of practical knowledge. According to his plan all early instruction should be given in the mother-tongue. Both sexes were to receive equal instruction. The rudiments of all knowledge were to be learned while young. Learning should be made agreeable. There should be an easy gradation of studies. Things connected in nature should be studied together. Studies should be adapted to the ability of the pupil. In fact we find the principles of concentration and apperception, the great bedrock principles of modern education dimly outlined in his plan.

The influence of Comenius was very great. He was the most famous
man in educational theories of his day. His advice and aid were sought in a number of countries in Europe. Both England and Sweden made special requests for him to help them. His fame reached even to America. Having received an invitation to become president of Harvard University he declined the honor.

The effects of the teachings of Comenius were to broaden the views of education and to extend the course so as to include those studies which were supposed to prepare for practical life. He opened the schools to boys and girls alike, thus extending education to one-half the race. He was probably the first great educator to advocate equal education for women. So far were his principles in advance of his time that the practice of today has not reached them.

The group of educators,—teachers and writers,—to which such men as Comenius, Ratich, Bacon, and Francke belonged, on account of the emphasis placed upon education of real value, or of a practical character, is commonly known in educational history as the Realistic school; and the men belonging to this school are called Realists. They were opposed to both the Schoolmen and the Humanists. While they agreed with the latter that the pure classics, mild discipline, and a clear understanding should supersede the monk's Latin, the harshness and the rote work of the Middle Ages, they differed with Humanists in the kind of instruction to be offered. The Humanists would limit the course entirely to culture studies, consisting of the classic languages, music,
Scriptures, rhetoric, dialectic, philosophy, and sometimes, a little history. The Realists, on the other hand, would teach the elements of all known subjects. All the practical subjects should be taught in the elementary schools. The chief aim of the Realists was the regeneration of man. To this end, morals should be taught by a sympathetic teacher.

In order to show clearly the position the Realists occupied, let us examine the following principles selected from the writings of Comenius and others. They are the guiding principles upon which their theories were based:
Guiding Principles of the Realists.

Aim:—The acquisition of practically useful knowledge.

1. Everything in the mother-tongue. If the languages are studied, the vernacular should be followed by the languages of adjacent nations then Latin and Greek.

2. Religion is of supreme importance. The young should exercise the Christian virtues,—temperance, justice, compassion, etc.

3. Both sexes shall receive equal education.

4. Education shall be universal.

5. Nothing should be committed to memory that is not understood.

6. Nothing should be taught that is not of solid utility.

7. Nothing that admits of rational demonstration to be taught by authority.

8. Let all the arts and sciences be taught in their elements in all schools.

9. In science the student should have the object studied before him.

10. "Nihil est in intellectu, quod non prius fuerit in sensu." Instruction must begin with a real observation of things and not with a verbal description of them.

11. Study only those authors who convey useful knowledge.
12. Educational methods should follow the order of Nature.
13. Learning should be made agreeable.
14. The foundation should be well laid.
15. Multiplicity of studies is to be avoided as scattering the attention.
16. Things naturally connected should be associated in teaching.
17. There should be an easy gradation of studies.
18. Studies should be adapted to the capacity of the pupil.
19. Let no task be assigned till the method of doing it is explained.
20. The concrete should precede the abstract; the simple, the complex; the nearer, the more remote, all step by step.
21. Words should be learned in connection with things.
22. Things to be done should be learned by doing.
23. Have a method in teaching.
24. In grammar, few precepts and much practice.
25. Frequent repetition of the thing learned.
27. The mind retains best what it finds pleasure in receiving.
28. Discipline should be mild and should aim at improving character.
29. Write compositions in the vernacular on familiar subjects.
30. The teacher should be an example in person and conduct of what he requires of his pupils.
It will be clearly seen from the above that in the minds of these reformers, education had become a science. With them all teaching should be after a plan. There should be a gradation of studies according to the ability and advancement of the pupil.

Even the Realistic education admirable though it be, was not entirely satisfactory. Between these two schools the chief question at issue was what studies were best adapted to give culture. The Humanists thought it could only be found in the study of Greek and Latin. According to the notion of this school, the ancients had about completed the cycle of all knowledge, and all that was necessary for a complete education was to go through the works of the Greeks and the Romans who had already settled the matter. All inquiries were settled by referring to the writers of this period who were to be final authority in all things. On the other hand, the Realists advocated original research according to the Baconian theory. Both desired to secure piety, and to inculcate religious principles above all things; but they differed as to the best method of securing the desired end. In the case of the Humanists it was to be secured by going back to the original Scriptures, and studying and meditating upon them, and committing portions thereof to memory. According to the Realists religious principles were to be taught by an instructor whose character was as nearly as possible, a model, and who had entire sympathy for the pupil. The Realists would broaden the sympathies by a knowledge of numerous subjects. All
subjects should receive such attention as their importance warranted.

In all this contest the point at issue was the substance of education. The child to be educated was considered as a vessel to be filled and the educators could not agree on the material to be put in. No one seemed to imagine that the training proper for the mind to be educated was to be determined by the mind itself. The individual child was not considered. A prescribed course was to be dosed out to all alike. But, in the latter half of the 16th century, Montaigne had written an important work on education, in which attention was given to the development of the individual. In this course, the individual was to become the center of educational effort. Previous to this, Rabelais had written an effective burlesque on the Scholastic and Humanistic methods. Following the suggestions of Montaigne, Locke about a hundred years later, wrote his "Thoughts Concerning Education." This work, as well as those of Montaigne and Rabelais, took a new view of education. Previous to this, it had been intellectual and moral only, with the emphasis usually on the intellectual side. But according to these reformers education is the development of the whole man, mental, moral and physical. They would go beyond the ancient Greek ideal, giving a thorough knowledge of all subjects. Science was especially to be treated thoroughly. All educational effort must have for its aim, moral character. To this end, a study of Nature is most efficient.
Before writing his great educational work, Locke had put into practice the theories of Montaigne and the Naturalists, as this school of educators was called, by taking entire charge of the feeble son of the Earl of Shaftesbury and educating him, developing him in the fullest sense of the word. So perfect was his work, that the sickly boy was transformed into a healthy man of intelligence and of model character. So satisfactory was this to the grateful parents that Locke was requested to select a wife for the young man whom he had trained. This delicate task was accomplished to the entire satisfaction of all concerned. Such was the harmony of the family and the confidence in the benefactor that he was entrusted with the education of the eldest son from this marriage. This was strong argument for the Naturalistic principles. Taking the experiment of Locke as a basis, Rousseau a century later, wrote his famous "Emile." In this book Rousseau describes the educational training of a youth according to his ideal. He then trains up a girl according to his ideal, and the two become united in marriage.

These reformers had shown the possibilities of education (one as a writer, the other in actual practice) if adapted to the child. Their ideals were complete development which should result in high moral character. They had proved beyond a doubt the efficiency of their theories, in securing this most desirable end. No other theory of education had yet been put to so practical a test. The idea that the child
should be the center of educational effort, and that all educational endeavor should have some definite end in view, had begun to take form in the minds of advanced thinkers on education. Instead of having a definitely prescribed course which every pupil must take, regardless of his preferences, or preparation, or adaptation, as had been the custom in all previous educational work, branches might now be selected with a definite end in view in each individual case. A few began to see that the plan of putting every victim into the iron bedstead and making each fit the frame, stretching out the short ones and lopping off the feet of the long ones, was not the best way of producing well-proportioned men.

Admitting the success of Locke's experiment and the correctness of the theories of Rousseau, the question of mass education remained yet to be solved. In these cases each teacher had charge of but one pupil. This plan might answer in an aristocracy where but few were to enjoy the privilege of an education. But the reformers believed that education should be universal. It remained for Pestalozzi to apply these Naturalistic principles to mass education. He did it by establishing a school among the poorest of the poor children and devoting his life to educating them. Taking these ragged, unpromising little urchins into his entire care he taught them lessons from nature as well as from books. He taught such things only as would be of most practical use to them. His purpose was to transform these beggars into law-abiding,
self-supporting citizens. Believing that all knowledge has its basis in sense perception, he made abundant use of object lessons, appropriating for the purpose the most common objects about him.

He explained the unknown by the known. He realized that those things which are of the most interest to the child are the proper studies for that stage of development. He formed the opinion that there is a sequence of studies which would make learning easy, pleasurable and effectual. He was constantly endeavoring to find this sequence. Believing that he had found it, he pursued his course diligently, allowing nothing to interfere to distract the attention of the pupils. Pestalozzi's success with these children was phenomenal. He awakened and maintained such an enthusiasm and interest as had rarely ever been seen. Once more had the correctness of the Naturalists been demonstrated. Pestalozzi had applied his theories to the masses, or more properly, to the lowest and most neglected class. The great popular class in the middle walks of life were yet left unprovided for. The course of Pestalozzi, as stated above, sought only to give the essentials, to make it possible for these boys and girls to become self-supporting. The middle and upper classes of society naturally aspired after more and required more. But his experiment has been of inestimable value. He showed that his methods could reach and redeem the most helpless and hopeless class of society, thereby establishing it upon a firm foundation.
But Pestalozzi was an enthusiastic, philanthropic teacher, rather than a philosopher. Such light as he had was only glimpses. He was inspired by Rousseau and doubtless drew most of his theories from that author. As he walked in the dawn rather than in the broad open day, it was but natural that in seeking the light he should often stumble. Sometimes his own experiments are contradictions of his own declared principles. But notwithstanding all this, he was the first to apply the great principles of the Naturalistic school to popular education, and stands as the greatest teacher of modern times. The following principles show upon what ground the Pestalozzian theories were based. Many of the principles of the Realists and some of those of the Humanists were accepted by the Pestalozzian school, but a large number were original with this school. The following are the chief principles upon which Pestalozzianism is based. A comparison with the two preceding lists will reveal the extent to which the Naturalists have drawn from the Realists and the Humanists.
Guiding Principles of the Naturalists.

Aims: (a) The development of the complete man. (b)

(b) The purpose of education is the attainment, 1, to virtue; 2, to wisdom; 3, to good-breeding, and 4, to learning.

(c) The function of education is to assist the natural development towards its destined end, rather than to fill the mind with knowledge.

(d) The purpose of education is training for practical life, the development of the learner's powers.

1. The individual child is the center of all true educational effort.
2. Knowledge is a means of education, - goodness, prudence, and sound judgment, the end.
3. Intuition is the basis of all true instruction.
4. Childhood has its own manner of seeing, perceiving, and thinking, peculiar to itself.
5. Spontaneity and self-activity are the necessary conditions under which the mind educates itself.
6. Co-operation of mind, and heart, and hand given by association of mental and manual labor.
7. All true education must result in character.
8. Education must satisfy both the physical and the spiritual wants.

10. Follow the order of nature. There is a proper sequence of studies.

11. The early beginnings of education are the most important. This period should be devoted to the physical training of the senses, to furnish the child with clear fundamental notions.

12. First the reality, then the symbol: the language taught incidentally.

13. Practical aptness depends more upon exercise than upon knowledge.

14. The vernacular the language of all instruction.

15. Popularize science by the objective presentation of its phenomena.

16. Base religion upon the love for the mother. Teach morals by example.

17. Base all instruction on that which the child already knows, and advance gradually. (Apperception.)

18. Base the relations of the teacher and pupil on love, and pay due respect to the individuality of the pupil.

19. Education is an unbroken unity extending from childhood to maturity. Restore to the home its proper place in education.

20. Human nature is organic, consisting of physical, intellectual, and moral capabilities ready and struggling to develop themselves.

21. There should be an equal development of mind and body.

22. Learn things themselves, not words about them.
23. What the learner has gained by observation has become an actual possession.

24. All learning is agreeable if rightly presented.

25. The learner's growth necessitates advancement from the near to the more remote, from the concrete to the abstract, from the known to the unknown.

26. Lessons should be given, sometimes from books, sometimes from conversation.

27. Gentle treatment and improved methods.

Humanistic Principles.

Aim—Education through an acquaintance with classic literature.
1. Everything in pure Latin and Greek. Accept the spirit of ancient Latin but no more imitation of form.
2. Revere the names and existence of authority.
3. Education is for the few, the favored class.
4. The languages belong to the schools, the elements to the universities.

5. "Non vivis cum vivis."
6. "Non vivis cum vivis."
7. Write compositions on classical subjects in Latin and Greek.
8. "Non vivis cum vivis."
9. "Non vivis cum vivis."
10. "Non vivis cum vivis."
11. "Non vivis cum vivis."
12. "Non vivis cum vivis."
13. "Non vivis cum vivis."
14. "Non vivis cum vivis."
15. "Non vivis cum vivis."
16. "Non vivis cum vivis."
17. "Non vivis cum vivis."
18. "Non vivis cum vivis."
19. "Non vivis cum vivis."
20. "Non vivis cum vivis."

Naturalistic Principles.

Aim—The development of the complete man.
1. Knowledge is a means of education—goodness, prudence, and sound judgment, the end.
2. Preparing for practical life is the purpose of education.
3. Independence of thought.
4. Follow the order of nature. There is a proper sequence of studies.
5. The early beginnings of education are the most important. This period should be devoted to the physical training of the senses. Furnish the child with clear, fundamental notions.
6. First the reality then the symbol—language taught incidentally.
7. Practical actions depend more on exercise than on knowledge.
8. The vernacular is the language of instruction.
9. Popularize science by the objective presentation of its phenomena.
10. Teach morals by example. Disciple religion upon the laws of the mother.

The underlined words are from the Humanistic school, those underdotted are original with the Naturalistic school, and the rest are from the Realistic school.

Realistic Principles.

Aim—The acquisition of practically useful knowledge.
1. Everything in the mother-tongue. If languages are studied, vernacular should be followed by the languages of adjacent nations, then Latin and Greek.
2. Past the criterion of authority.
3. Education shall be universal.
4. The sciences should begin in the mother-school.
5. "Non vivis cum vivis."
6. "Non vivis cum vivis."
7. Write compositions on practical subjects.
8. "Non vivis cum vivis."
9. "Non vivis cum vivis."
10. "Non vivis cum vivis."
11. "Non vivis cum vivis."
12. "Non vivis cum vivis."
13. "Non vivis cum vivis."
14. "Non vivis cum vivis."
15. "Non vivis cum vivis."
16. "Non vivis cum vivis."
17. "Non vivis cum vivis."
18. "Non vivis cum vivis."
19. "Non vivis cum vivis."
20. "Non vivis cum vivis."

CHART II.

Origin of Naturalism.
It will be seen that the Naturalists accepted a great many of the principles of one or both of the preceding schools. They were more opposed to Humanism than to Realism. They took up the cause of the Realists in a measure, but claimed that the latter did not cling close enough to Nature. So far as science is concerned, Naturalism may be called Realism of an intensely deeper dye. But the former differed from the latter widely in changing the whole basis of education, and making the child the center of educational aims instead of considering the course of instruction the fixed point towards which the child must.

Since the Realists were contending for a minimum of ancient languages, and a maximum of practical knowledge, for the mother-tongue, and for the elements of science, it will be seen that the Naturalists absorbed the vitality of the Realistic cause and added a great deal more. They would delve deeply into science instead of dabbling around the brink of the stream.

The cause of Realism being thus espoused by a new and more vigorous champion, the school soon ceased to hold a prominent place in the educational field. It passed from the stage of activity for want of advocates. Henceforth the contest was between Humanism and Naturalism.

Thus we find the various schools after the time of Pestalozzi. Humanism had possession of the strongholds, with Naturalism winning Napoleonic victories in the field. Humanism furnished culture for the aristocratic class, and Pestalozzianism gave practical training for the
lowest stratum. It yet remained for some one to unite these extremes 
by providing for the education of the middle class. This was accom­
plished by taking the principles underlying Pestalozzianism as a basis 
and generalizing them.

The man who accomplished this was Johann Friedrich Herbart who was 
born in 1776 and ended his labors in 1841. With his acute intellect 
and profound learning he was able to penetrate deeply into the work­
ings of the human mind and to discover much concerning the laws of 
mental activity. Then carefully searching for the principles underly­
ing the methods of the Humanists and of the Realists, he was able to 
reconcile the best features of both and to formulate in definite 
language the universal educational principles upon which a general 
system of education might be established. Besides harmonizing these 
conflicting schools, he has done very much in the way of original dis­
covery. It was Herbart who first applied the principles of psychology 
to education. That this is a correct basis upon which to rest a firm 
system of educational theory, is the present belief of all thoughtful 
educators. What future investigation may bring forth is unknown. Today 
"Herbartianism" is significant of what is most valuable in the way of 
educational theory. He showed that the theories of Pestalozzi were 
correct even though his practice sometimes contradicted his own theo­
rries. He pointed out the fact that if the methods of Pestalozzi, which 
accomplished so much for the lowest class of society be only applied
to higher education, the problem would be, in a measure, solved.

Chart No. II. shows the conflicting principles of the Humanists and Realists, together with the principles of the Naturalists. A glance will show how much the latter school received from each of the former, in cases where the two schools were in conflict. The principles upon which all the schools agree are omitted, the object being to give the salient features peculiar to each school.
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