

from him. But the idea that Doctors A and B
 can each supply the other with the very same
 information ^{or with information virtually the same} is ridiculous. I maintain that
 no two sciences can depend ^{each results of} upon ^{principles} (the other for ~~that~~
 principles without which it cannot exist as a science).
 Now all the special sciences, - in particular, dy-
 namics the most fundamental of the physical
 sciences and the ~~science~~ ^{science} of association the most
 fundamental of the psychical sciences, ~~but~~
 depend for their existence as sciences upon
 principles which only ^{the metaphysician can properly} metaphysics ~~can~~
 discuss. To show how differently ^{metaphysicians} the empiricists
 think, I will quote a sentence from the second edition of
 Wundt's 'System der Philosophie'. He says: "Ich muss
 zugeben: wenn man es als ein Axiom betrachtet,"

metaphysische Systeme müssten unabhängig von allen
 von allen Einflüssen des Einzelwissens, sozusagen
 durch eine wissenschaftliche generatio aequivoxa
 entstehen, so lässt sich gegen jene Meinung nicht
 viel einwenden. In der That glaube ich, dass es einen
 Unterschied macht, wo man anfängt, und wo man
~~aufhört~~ aufhört. Da ich von den Naturwissenschaften
 ausgegangen und dann ^{durch} die Beschäftigung
 mit empirischer Psychologie zur Philosophie gekommen
 bin, so würde es mir unmöglich erscheinen anders
 zu philosophieren als nach eine Methode, die dieser
 Folge der Probleme entspricht." It is that obvious about
 the generatio aequivoxa that I wish to call attention
 to, which implies that a ^{doctrine} ~~proposition~~ which is not based
 upon a result of one of the einzelwissenschaften, or
~~upon a result of scientific research~~ ~~upon a result of scientific research~~

~~basis at all.~~ Special sciences, has no basis at all,
 Now all such results depend upon logical prin-
 ciples without which no special science would
 have any credibility, ~~at all.~~ It would therefore
 follow that logical principles are based on
 nothing at all, and ^{that} the special sciences which
 are based on these baseless principles have no
 solid basis, were it not that ^{Wandt} ~~he~~ thinks that
 Logic and the Special Sciences, like two lying
 witnesses in court, sustain each other's credit.
 But according to me there are certain principles
 that no man doubts, — that you do not
 doubt in the least degree. Very vague, I confess,
 or rather insist, that they are, but still not
 entirely nonsensical; and that it is upon these

principles of Common Sense that Logic and all
 Cosmology must rest; and since they are
 absolutely indubitable, there can be no con-
 sistent dissatisfaction with them. These are not
 results of any special science, but on the con-
 trary, antecede all scientific research and are
 taken for granted by all scientists. For scientific men
 are not sophists and wranglers over nothing, but
 are eminently men of Common Sense, that is of
 Human Instinct, ^{the ~~galaxy~~} beyond which it is impossible for
 men to push their criticism. I could not ask for
 more convincing support of this Common Senseism
 than is furnished by the ultra-empiricist Ernst
 Mach in his book "Die Mechanik in ihrer Ent-
 wickelung historisch-kritisch dargestellt."

My views of Phenoscopia are no doubt immature. I have only been working on the problem some forty odd years and what can be expected from an infant give me a glimpse of the subject. ~~As I divide Phenoscopia into three parts as it is then, as far as I am concerned, in that of some young man who will take up the work and find we shall have something better than vague guessing.~~ ~~the division~~

It ought to be, into three parts: Phaneroscopy, Metaphysic, Normative Science, and Metaphysic

or Protoscopia, Darkoscopia, and Protoscopia.

Phaneroscopy is the description of the phaneron; and by the phaneron I mean the collective total of all that is in any way or in any sense present to the mind quite regardless of whether it corresponds to any real thing or not. If you ask present when, and to whose mind, I reply that I leave these questions unanswered, never having entertained a doubt that those features of the phaneron that I have found in my mind are present at all times and to all minds. So far as I have developed this science of phaneroscopy it is occupied with the

The Second Division of Cosmology, or
Dentrosocopy, ^{must, I think, break away} ~~and distinguish itself from~~ Phanerosocopy
in distinguishing between what is as a fact and
what apparently might be, but isn't. If this strikes
its dominant note of Duality on its first inception,
(^{harmony} in ~~accordance~~ with this duality ⁱⁿ its substance, ^{I think} ~~it~~ ^{it should divide}
divides into two Problems, Ontology, which recog-
nizes two kinds of Existent, Mind and Matter, and
Normative Science, ~~which~~ ^{which} recognizes
~~the bad as distinct from the good~~

But remembering that we are in the region of exo-
sopy, the idea of ethics is too narrow. How can there
be a science of ethics before psychology is understood?
As a cosmologic science, I think it must be broader
and include the existent generally. Moreover, I do not
see how there can be any ^{valuation} approval or disapproval of a
mere idea in itself and therefore I think there can be no
esthetics until something is to be done with the idea.
Esthetics, therefore, can be nothing but a branch of ethics. ~~But~~

formal elements of the phenomenon, I know that there is another series of elements imperfectly represented by Hegel's categories. But I have been unable to give any satisfactory account of them.

~~The second division of phenomenology is normative~~
 science. The normative sciences are ^{usually} said to be
 esthetics, ethics, and logic; ^{but Herbart and others} and I do not ^{put} ~~oppose~~
 esthetics & ethics together, ^{perhaps rightly,} ^{largely & may say principally}
~~this division~~, they are all occupied with a dual
 distinction, the distinction of the ~~of~~ approved
 and the unapproved. Esthetics relates to the im-
 mediately contemplated; ethics to doings; logic
 to thought. ^{not very easy} It is ~~important~~ to seize the exact
 meaning of the ~~very~~ phrase normative science.
 It means the science of the approvable and unap-
 provable, or better the blameable and the unblameable.

These sciences are distinguished from ^{most} others by ~~circumstances~~ ^{circumstances} ~~containing~~ ^{circumstances} this dual distinction. But it would be easy to exaggerate its prominence in them. This prominence is greatest in ethics, least in aesthetics.

There arose in the Lyceum after the death of Aristotle as to whether the Logic was a speculative or Practical Science, an Art, or an Organon. It is not worth while to explain the meanings of these terms. The dispute, like many others, continued long after its meaning had been forgotten; and to this day Normative Sciences are frequently confounded with Practical Sciences. They are, however, properly speaking pure sciences, although practical studies are joined to them, so that in part they are truly Practical Sciences. But the normative science proper.

For it is the bad that is the positive idea, and the good is merely that from which the bad is absent. I am not saying that this is so in general, but it is so from the point of view of the normative sciences. The right is the matter of course; the wrong is the marked ~~plus~~ character. The dualistic character of the normative sciences must not be exaggerated. It is not that they are occupied with nothing else, but that this ^{sort of} distinction occurs in these sciences at all which distinguishes them from all other sciences. It is more prominent in ethics than in the other two; and the ~~words~~ ^{pairs of words} good & bad; right and wrong, and the like if used without qualification will be apt to be understood as marking the ethical distinction.

If we are to admit only two normative sciences,
which for convenience we call ethics,
the first of these relating to control of the practical, or
say to actualization, and the ethics
(second to thought), then that first must have two
sections, the first one on the ultimate aim, or
summum bonum, which will be the same as esthetics,
if esthetics is not confined to sensuous beauty,
but is to relate to the admirable and adorable generally,
while the other, which maybe called critical ethics treats
of the conditions of conformity to the ideal.

If I decide that a new word
designate that ~~first section~~
will suggest that ~~express my idea of what the first~~
~~normative science must be that word shall be~~
axiagastics (the name of
the science of the worthy of ad-
oration. For I hold that the science must be the science
the analysis of that which is admirable without any
commit in

is not a practical science but is a study in the
pure interest of theory. The conception of a
family of sciences ^{of this description} ~~called normative~~ is, I

believe, due to Herbert, together with the word
~~normative~~. But Herbert and others only

admit two such sciences, since they ^{join} ~~put~~

ethetics and ethics ^{in one} ~~together~~. I certainly could

not admit that ethetics, in the sense of the

science of sensuous beauty is one of the three

normative sciences. If I had to make a

word to express the science of the adorably

admirable, which I think is the true nor-

mative science, I ^{shall} ~~should~~ call it axiagastics. But

on the whole I ^{do not} ~~cannot think~~ that Baumgarten's

ethetics is too much strained from Baumgarten's

Only

The Greek $\alpha\gamma\alpha\mu\alpha\iota$ is an expression, a
gerundive verb expressing how the
common people in primitive times
looked up to their leaders with passionate
admiration & devotion; ~~It comes~~

It comes nearest ^{to} expressing the idea. Repeat
in the root, although the linguists do not say they
are the same, we have the word $\alpha\gamma\alpha\gamma\alpha\sigma\tau\eta\varsigma$,
the science of that which is worthy to be admired.

alterior reason for being admirable, ~~the or in other~~
~~meaning in being extended so as to include in~~
~~and the analysis of what it is that excites that feeling~~
~~science of the worthy.~~ it is that excites that feeling

akin to worship that fills one's whole life in the contem-
plation of an idea that excites this feeling. We must
suppose that primitive or barbarous people ~~can~~ ^{hardly} have
this idea, since ~~no~~ ^{hardly any} word in any language (as far as I
know) expresses it. The French beau comes as near as

cool and cold.
reason to think

any, but is far. The primitive man ~~does~~ ^{hardly} ~~think~~ ^{think} of the divine as something to be passionately loved
~~but is far~~ ^{not} ~~think~~ ^{think} of the divine as something to be passionately loved
~~but is far~~ ^{not} ~~think~~ ^{think} of the divine as something to be passionately loved

but as something to be feared. The Greek αἰγιατός is a
verb expressing how the common people in primitive times
looked up to their leaders with passionate admiration and devotion,
as near expressing the emotion as any word does. It
comes the nearest to expressing the idea. Repeating the
word that I will form ~~comes~~ ^{is an exception & glorifies}
root, although the linguists do not say they are the same, it makes
the word axiagastia for the science of that which is worthy to be admired and ad-

the word

But I am not thoroughly persuaded that

Baumgarten's word ethetica will be too unwor-
tunately wrenched in being given this meaning.

Critical ethics will be the science of the general conditions of control; and it is easy to see that it comes chiefly to the doctrine of self-control;

Logic ~~is~~ takes its start in that. It is but an application of ~~moral~~ ethics to thought.

For reasoning differs from the formation of a new belief by the action of the association of ideas only by being a deliberate, controlled, piece of conduct.

However, the one sole way to ^{success in logic} ~~make logic~~ is to regard it as a science of signs; and I defined it in 1877 as the theory of the relation of symbols to their objects. Further experience has convinced me that the best plan is to consider logic as embracing more than that, and

Ethics is the Science of self control. It has ^{only} two parts,
according to me; for I turn the whole question of
the summum bonum over to axiagastics, or
^{this making ethics to depend upon} Esthetics,
called Esthetics, that leaves nothing for ethics
itself to do. ^{the first is} ~~to~~ describe the operation of self control,
not psychologically, that is, not as a student of
the law it ~~ought~~ ^{thought} ~~ought~~ ^{ought} to describe it,
but as it presents itself as a problem to the psychologist
to explain it. The other part of ethics, I call critical
ethics, this is not far from what is called casuistry,
except that unlike that it does not consent in dealing
with cases. It tells ^{to} what conditions ~~the~~ conduct
must conform ~~to~~ in order to be right.

Logic is an application of ethics, just as
ethics is an application of axiagastics

And the difference between reasoning and the
creation of a new belief by the association of
ideas is that reasoning is self-controlled thought,
or thought ~~under control~~ ^{tempered and trained}.

the general theory of signs of all kinds, not
merely in their relation to their objects but in
every way.

This way of looking upon logic is the one
salvation for the science. You will object, You
will say, "What have not these signs got to be
understood by some mind?" I reply, yes, un-
doubtedly. But when you speak vaguely of
some mind's understanding them, you mingle
confusedly many circumstances, some
of them essential, but furnishing no

science until they are separated and each is
 definitely recognized in its precise functions
 and the merely accidental circumstances cleared
 away. What is thinking? It can only take place
 in signs. What is it to understand a sign? It is
 merely that the sign is interpreted in a sign in
 your minds. The whole function of the mind
 is to make a sign interpret itself in another
 sign and ultimately perhaps in an action or
 in an emotion. But the emotion is an idle
 thing unless it leads to an action. The action is
 an idle thing unless it produces a result which
 agrees with a sign through a sign. The
 whole problem is of signs; and if the mind
 has to be taken into account, it should be con-

sidered in its relation to signs.

There will be no preparation for understanding these lectures, which, judging by great psychologists, are not easy to understand, and I may say I am sure they are quite impossible to understand from the psychological standpoint ~~the~~ since they turn principally upon elements of experience that the psychologist takes pains to shut out from view. — I say there is no better preparation than that of spending an hour more or less, remembering for how very short a time attention can be on the stretch without relaxation, in spending then the remnants of an hour most of it given to rest and to bringing attention back, in thinking how thought is ~~an~~ ^{discourse} of the self that has been to the critical self that is coming. "I say I myself," say the wise unlearned. Thought is nothing but a tissue of

signs the objects concerning which thought is occupied are
 signs. To try to strip off the signs and get down to the very
 meaning itself is like trying to feel and own and get down
 to the very union itself. "You may get down, however, to
 actions," say some of the pragmatists. I beg their
 pardon. You may get down to resolutions & act. But
 they are not actions but signs of actions. Get down
 to the ~~acts~~ very actions themselves and you can no
 longer find in them the meanings of the signs. Lebus talks
 about your chair "Chair is a word. It is a sign.
 The best talking chair is a sign. What will you have. Get
 down to the very impressions of sense and there is
 no chair there. The life we lead is a life of signs. Sign
 under sign endlessly. In one of my early papers in the
 second volume of the Journal of Speculative Philosophy,

I compared the case to the dipping of an ivory object down into water. There will be at any instant, as the dipping proceeds, a water line, or locus which is at once occupied by ~~of~~ air, water, and ivory. No matter at how early an instant in the dipping process we snap our mental camera, there will have been lines already. Where there ^{has} been ~~no~~ ^{no} line already there is no line, but only a point.

Some men, like our dear James, ~~and~~ ^{and} like Thomas Davidson, the founder of this school, think that this absurd. They think there must be a first line. That is, against the testimony of the sense or imagination they invoke logic. Well, we say to them, put the argument, if there be one into any syllogistic form. They are unable to do so. Very well, we say, if it cannot be put into any of the recognized forms of syllogism, tell us ^{under} what new form of reasoning ~~then~~ you can put the argument.

you can put the argument that makes the testimony of fact
 absurd, - that makes it absurd that Achilles should overtake
 the tortoise, - for that is the same thing. They are unable to
 do that. Then we say do you mean to say that the real Achilles
 will not overtake the real tortoise as a fact? No, they admit
 that he will. So then, we say, we and all mathematicians
 who are the only exact reasoners see no absurdity at all
 in this. But you have an inscrutable logic which cannot
 be reduced to any principle, which requires you from true pre-
 mises to insist upon what you yourselves admit to be a
 false conclusion. What is logic? Per, if not to prevent the
 passage from true premises to false conclusions? To this,
 they have nothing to say, but they go their way still in-
 sisting that it is absurd that Achilles should overtake the
 tortoise. ^{up} Absurdth we call after them in a less harshly

should mean contrary to reason, and you are unable to formulate this reason. Why not give up this kind of logic and adopt that of all mathematicians? But it is all in vain. More ineradicable with them than reason ^{itself} is that tendency of theirs to consider the general, the law, as an existent thing. I do not see what remains to us to whom the whole matter is perfectly clear; but to say that they are minds congenitally incapable of a necessary form of thought. Certainly a logic which leads one from true premises to admitted false conclusions appears to us to be a poor form of logic, and when that logic is unable to formulate itself we are tempted to call it mental incapacity. Yet they base their whole philosophy up this unhesitatingly. I for my part prefer to cast my lot with the mathematicians, whose logic does not kick up such capers, and is able to give an account of itself.

"Well," says James, "I hate logic." I reply that I am sorry, but a philosophy ought not to be based upon that sentiment.

But though these gentlemen are unable to formulate their own logic, we have no difficulty at all in formulating it for them. They ^{sometimes} think that it is continuity only that they object to. They are mistaken. Continuity is not necessarily involved in ~~the~~ what they pronounce absurd. What they find absurd is the endless. The very idea of the future, as endless, is to them absurd, though they may not at once see that it is. In short, though they think in signs like the rest of us, they do not really think in general signs; but ~~resort~~ ^{resort} to such imperfect interpretations of them as can be made into images and slight inhibited efforts.

Logic has three branches, The first which ^{for example} treats of the constitution of signs, what it is that