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# Brentano's Empirical Psychology: An English Translation with an Evaluation of Its Influence upon Contemporary Scientific Psychology Volume 2

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BRENTANO'S EMPIRICAL PSYCHOLOGY: AN ENGLISH TRANSLATION  
WITH AN EVALUATION OF ITS INFLUENCE UPON  
CONTEMPORARY SCIENTIFIC PSYCHOLOGY

VOLUME II

TRANSLATION OF FRANZ BRENTANO'S  
PSYCHOLOGY FROM AN EMPIRICAL STANDPOINT

by

Antos C. Rancurello

A Dissertation Submitted to the Faculty of the Graduate School  
of Loyola University in Partial Fulfillment of  
the Requirements for the Degree of  
Doctor of Philosophy

## TRANSLATOR'S FOREWORD

Boring's and Allport's expert opinions concerning the value of, and need for, an English translation of Brentano's Psychology from an empirical standpoint were quoted in the Preface to Volume I of the present work. Hopefully, the content of this volume confirmed and gave substance to these opinions, by bringing forth sufficient and varied data bearing upon the theoretical and historical significance of Brentano's classical work. It will be sufficient here to add a few comments about some technical aspects of the translation itself.

In general, an attempt was made to adapt Brentano's complex and tightly structured style of writing to the more simple and matter-of-fact modes of diction in the English language. To this end, whenever the unity of thought could be preserved, compound and lengthy sentences in the original text were simplified. In the same spirit, elements of style or phraseology which were merely expletive were by and large omitted.

After some deliberation, the term imagination rather than ideation was chosen to translate Brentano's Vorstellung. The translator is grateful to Professor Vincent Herr, S. J. for having originally brought to his attention, in a personal communication, varied reasons for this choice. His subsequent study of Brentano's thought fully confirmed the validity of these reasons and choice. Representation and to represent, however, were used to translate respectively the first term of compound expressions such as Vorstellung der Vorstellung, and verb forms.

The translation of Wirklich(es) also created a problem of choice of terms at the outset of the present work. Since this term is frequently used by Brentano in opposition to Real(es), the terms effective (existence), effectively (existing) were at first considered more suitable than real, really (existing). The latter were finally chosen because they fit more smoothly into idiomatic English, and because the context of a given sentence adequately defines their true meaning, thus preventing any possible misunderstanding in this matter.

The translator wishes to express his gratitude to Professor Frank J. Kobler who twice read the entire manuscript, offering extremely valuable suggestions in matter of style. For similar reasons, he is also grateful to Professor Vincent Herr, S. J.

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## PREFACE TO THE FIRST EDITION

The title which I have given to this work characterizes it both as to its object and method. My standpoint in psychology is empirical: experience alone is my teacher. However, I share with other thinkers the conviction that a certain ideal conception is entirely compatible with such a standpoint. My conception of the method of psychology will be stated more in detail in the first of six books into which the work is divided. This book discusses psychology as a science; the second, psychic phenomena in general. There will follow a third book which investigates the properties and laws of imagination; a fourth concerning those of judgment; and a fifth one specifically dedicated to those of affective and volitional states. A final book will deal with the relationship between mind and body. In this last book we shall also devote our attention to the question of whether it is conceivable that psychic life endures after the disintegration of the body.

Even though the plan of this work embraces all the different and essential fields of psychology, it is not our purpose to write a compendium of this science. We shall nevertheless strive to make our presentation clear and comprehensible to anyone who is in any way interested in philosophical investigations. Although we often dwell at great length upon

certain specific problems, we are not as much concerned with completely developing them, as we are with laying their foundation on a solid and firm basis. To many a reader, perhaps, this solicitude might appear exaggerated and tedious, but I would rather incur this reproach than be accused of not having endeavored to justify sufficiently my assertions. Our most urgent need in the physical realm is not the quantity and the universality of the tenets, but rather the unity of the doctrine. Within this framework we must strive to attain what mathematics first, and then physics, chemistry and physiology have already attained, i.e., a core of generally accepted truths capable of attracting to it contributions from all other fields of scientific endeavor.

Just as there is no specifically German truth, so there cannot be a specifically national psychology, even though it be a German psychology. It is for this reason that in my work I am taking into account the outstanding scientific contributions of modern English, as well as German philosophers.

There is no doubt that indiscriminate compromises render science a poor service, since they sacrifice the union and unity of doctrine for the union and unity of teaching. Indeed, nothing has ever led to a greater cleavage of philosophic opinions than eclecticism.

In the field of science, just as in that of politics, it is difficult to reach agreement without war. The only, yet unquestionable, difference is that in philosophical battles we should proceed in such a way as to bring about the triumph of truth, rather than the triumph of this or that

investigator. The driving force behind these battles ought not to be ambition, but the longing for a common subordination to truth, which is one and indivisible. For this reason, just as I have proceeded without restraint to refute and discard the opinions of others whenever they seemed to be erroneous, so I will readily and gratefully welcome any correction of my views which might be suggested to me. In these investigations and in those which will follow them I assail quite frequently and with great tenacity even the most outstanding investigators, such as Mill, Bain, Fechner, Lotze, Helmholtz and others, but this should not be interpreted as an attempt either to lessen their merit or weaken the power of their influence. On the contrary, it is a sign that, as have many others, I, too, have felt their influence in a special way and have profited from their doctrine not only when I have accepted it, but also when I have had to challenge it. I wish, therefore, that following my example others can benefit from a thoroughgoing evaluation of their theories.

I am also very well aware of the fact that frequently my arguments will be directed against opinions which I do not consider to possess great intrinsic value. I was prompted to undertake a rather detailed study of these opinions because at the present time they enjoy an undue popularity among, and exert a lamentable influence upon, a public which, in matters of psychology even less than in other fields, has not yet learned to demand scientific cogency.

Quite frequently the reader will find that I advance opinions which

are entirely new. I hope, however, that it will be easy to recognize that in no instance have I been concerned with the search for originality at all costs. On the contrary, only reluctantly and when compelled by the preponderant and, in my opinion at least, overwhelming strength of principles, have I occasionally departed in such a way from traditional conceptions. Moreover, a closer analysis will reveal that even when I express what may be new ideas, to some extent these ideas have had some antecedent. I have not failed to call attention to these preparatory works, and even when my viewpoint has developed independently from previous analogous conceptions, I have not neglected to mention them, since it has been my concern to appear not as the inventor of a new, but rather as the advocate of an actual and well established truth.

But if ancient theories at times turn out to be an introduction to a more accurate doctrine, it follows that my own work can only be a preparation for future productions of greater perfection. A certain contemporary philosophy, which for a while succeeded in presenting itself as the final embodiment of all science, was soon considered unimprovable rather than unsurpassable. A scientific doctrine which precludes further development toward a more complete life is a stillborn child. Contemporary psychology, in particular, finds itself in a situation in which those who allege to be its experts betray a greater ignorance than those who confess with Socrates: "I know only one thing, i.e., that I do not know."

Nevertheless, truth does not lie at either extreme. There exist at



the present time the beginnings of scientific psychology. Although inconspicuous in themselves, these beginnings are indisputable signs of the possibility of a fuller development which some day will bear copious fruits, be it only for future generations.

Aschaffenburg

May 7, 1874

PREFACE TO THE SECOND EDITION<sup>1</sup>

The greatest contributions to science are not made by treatises, or by manuals whose goal is to present a systematic view of a given scientific discipline, but by monographs which deal with a single problem. It is not surprising, therefore, that in spite of its incompleteness my Psychology from an Empirical Standpoint has aroused wide interest. In this work, in fact, I offered entirely new solutions to certain elementary questions, and tried to justify in detail all my innovations. In particular, my investigations on the classification of psychic phenomena have attracted more and more the general attention of scientists. The fact that recently I was asked to authorize the Italian translation of the chapters dealing with these investigations testify to the ever-increasing interest in the matter.

Although my book was published more than thirty years ago, my new investigations have not altered substantially the views expressed in it. On some relevant points, however, they have led to further developments or, as I myself at least believe, to some timely modifications. While on the one hand it seemed impossible to me to make no mention of these innovations, on the other hand I felt compelled to retain the original format of my work,

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<sup>1</sup>Published in 1911 under the title of Classification of Psychic Phenomena and containing only Chapters 5-9 of Book II, followed by an Appendix (translator's note).

such as it had influenced its contemporaries. I was further prompted to follow this procedure by the realization that many eminent psychologists, who had shown great interest in my doctrine, were more inclined to rally to it in its first form, than to follow me in my new lines of thinking. In view of this, I have decided to reprint the old text with practically no changes, but at the same time to supplement it with certain observations found either in footnotes or preferably in an appendix. These observations contain a defense against certain objections which have been advanced against my doctrine from several sources, and develop those aspects of my doctrine which, in my own judgment, needed revision.

One of the most important innovations is that I no longer think that a psychic relation can only have as its object something real. In order to justify this new point of view, I had to explore entirely new questions, such as the question of the modes of imagination.

I am fully aware that the conciseness of my presentation does not facilitate the understanding of the subject matter. In view of this, I have tried to express myself with greater precision.

Having come to know about the Italian translation and the additions included in it, some German psychologists have urged me to prepare also a new German edition of my Psychology from an Empirical Standpoint, especially since the first edition has long been out of print. It is their request that prompts me to make available a new edition of the original German text, with all the additions of the Italian translation.

**BOOK ONE**

**PSYCHOLOGY AS A SCIENCE**

## CHAPTER I

### CONCEPT AND PURPOSE OF PSYCHOLOGY

Certain evident and well known phenomena, which originally appeared to offer an explanation of hidden realities, were subsequently recognized as more obscure than others and thus, in their turn, aroused astonishment and curiosity. Though for the most part the great thinkers of antiquity have directed their best efforts with tireless zeal to their investigation, it is concerning these phenomena that even today we are largely in disagreement and lack clearness of understanding. It is precisely these phenomena that I have made my object of study. I will attempt in this work to sketch with broad strokes a truer picture of their properties and laws. No branch of science has borne less fruit for our knowledge of nature and life, and yet there is no other which holds greater hope for the satisfaction of our most essential needs. With the single exception of metaphysics, there is no branch of science upon which most people are inclined to look with greater contempt, yet there is no other to which certain individuals attribute a greater value and which they hold in greater esteem. Indeed, the entire realm of truth would appear deficient and contemptible to many people if it were not destined to include also this province of science. None of the other sciences appear to them as deserving honor except insofar as they point the way to it. The other sciences are in fact only the

substructure; psychology is, as it were, their crowning pinnacle. All the others are a preparation for this science. In its turn psychology, although dependent upon all of them, ought to exert a most powerful influence upon them. This science must renew man's entire life, and hasten and assure progress. If on the one hand it appears to be the pinnacle of the tower-like edifice of science, on the other it is destined to become the basis of society and of its noblest possessions, and, by this very fact, to become the basis of all scientific endeavors.

1. Etymologically psychology means: science of the soul. In fact Aristotle, who was the first to offer a classification of science and to describe its various branches in his different writings, entitled one of his works: *περὶ ψυχῆς*. By soul he meant the nature or, according to his favorite expression, the form, the first act, the first perfection<sup>1</sup> of a living being. He calls living that which nourishes itself, grows and reproduces, and is endowed with the faculty of sensation and thought, or possesses any one of these faculties. Even though he did not attribute consciousness to plants, he nevertheless considered the vegetative realm as living and endowed with a soul. After establishing the concept of soul, the oldest work on psychology discusses the most general characteristics of beings endowed with vegetative, sensory or intellectual activities.

This was the area of problems which psychology originally encompassed.

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<sup>1</sup> The Greek expressions are: φύσις, μορφή, πρώτη ἐνέργεια, πρώτη ἐντελέχεια.

Later on, however, its field was narrowed substantially. Psychologists no longer discussed vegetative activities. On the assumption that it lacked consciousness, the entire realm of vegetative life was no longer considered to be within the scope of their investigation. In the same way, the animal kingdom, insofar as it is, like plants and inorganic things, the object of external perception, was excluded from their field of research. This exclusion was also extended to phenomena which are nevertheless closely associated with sensory life, such as the nervous system and muscles, so that henceforth they became the object of research of the physiologist, rather than the psychologist.

Such a narrowing of the domain of psychology was not in the least arbitrary. On the contrary, it reveals itself as a natural correction necessitated by the nature of the object itself. In fact, only when unification of related, and separation of unrelated fields is achieved, can the boundaries between sciences be correctly drawn and their classification be of service to knowledge. The phenomena of consciousness are related to a prominent degree, since the same mode of perception gives us knowledge of them, and numerous analogies relate higher and lower phenomena to one another. However, just as the characteristics of living beings revealed by external perception can be seen from another angle, so they can also be seen in an altogether different form. For this reason, the general facts which we find in this realm postulate laws which are either the same as, or analogous to those which govern inorganic nature.

We could even say, not without foundation, that Aristotle himself foreshadowed this rectification of the frontiers of psychology. Those who are acquainted with him know how frequently, while expounding a less well defined doctrine, he sets forth the rudiments of a different and truer conception. His metaphysics as well as his logic and ethics offer many proofs of this. Thus in the third book of his treatise On the Soul, in which he treats of voluntary action, he prescinds from the investigation of the organs that serve as intermediaries between the desire to act and the member of the body toward whose movement the former is directed. In fact, expressing himself at this point like a modern psychologist, he asserts that this investigation does not belong to the study of the soul, but to that of the body.<sup>1</sup> This incidental remark aims only at convincing more readily anyone today who is still an ardent follower of Aristotle.

We saw how the field of psychology became circumscribed. At the same time, and in quite an analogous manner, the concept of life was also restricted or if not this concept--since scientists most frequently still use this term in its broad original sense--at least the concept of soul.

In modern terminology the term soul refers to the substantial substrate of imagination and other activities which, just like imagination, are immediately perceptible only through inner experiences, and which presuppose imagination. Thus one has become accustomed to call soul the substantial substrate of a sensation, of an image, of a memory act, of an act

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<sup>1</sup> De Anima, III, 10. p. 433, b, 21.



of hope or fear, or of a desire or aversion.

We, too, use the term soul in this sense. In spite of the modification of its content, there does not seem to be anything to prevent us from defining the concept of psychology in Aristotle's own terms by stating that it is the science of the soul. Therefore, like the natural sciences which study the properties and the laws of physical bodies to which our external experience is related, psychology appears as the science that gives us knowledge of the properties and laws of the soul which we discover in ourselves immediately through our inner experience, and which through analogy we infer to exist in others.

Thus delimited, psychology and the natural sciences appear to share the entire field of experimental sciences and to distinguish themselves from one another with a more clearly defined boundary.

But this is not the case, at least with regard to the first of these claims, since there are events which can be assigned equally well to both the field of external and internal experience. It is exactly because of their great extension that their more comprehensive laws do not belong specifically either to the subject matter of the natural sciences or to that of psychology. Since they belong to both sciences, these events cannot be attributed to either of them. Nevertheless, they are numerous and significant enough to constitute by themselves a separate branch of research. It is this branch which, under the name of metaphysics, we must distinguish from the natural sciences.

Moreover, even the distinction of the two less general sciences within these three great domains of knowledge is not absolute. As it always happens whenever two sciences border upon one another, disputes between the natural and the psychic sciences over their boundaries are inevitable. The phenomena which are investigated by the physiologist and those investigated by the psychologist are most intimately correlated in spite of the basic difference of their nature. United in the same identical group we find physical and psychic properties. Not only may physical states be aroused by psychic states, and the latter by the former, but physical states may have psychic consequences and vice versa.

Many thinkers, in particular Fechner, have set aside a special science which should deal with these questions. This author named this branch of science "Psychophysics" and called the well-known law, which he established in this connection, the psychophysical law. Others, less appropriately, have called it "physiological psychology."<sup>1</sup>

These thinkers believed that such a science would eliminate all boundary disputes between psychology and physiology. However, would not new and even more numerous disputes arise in their place between psychology and physiology? Has not the psychologist the obvious task to ascertain the first

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<sup>1</sup>Recently Wundt adopted this expression in his important work: Grundzüge der Physiologischen Psychologie (Leipzig, 1873). Even though it may be acceptable in this context, such an expression might on the other hand be misunderstood, insofar as one might tend to apply the term "physiological" to the method. In fact, we shall soon see how several authors have attempted to construct all psychology on the basis of physiological researches (Cf. also Hagen, Psychol. Studien, Braunschweig, 1847, p. 7).

elements of psychic phenomena? Yet the psychophysicist must also investigate them because sensations are aroused by physical stimuli. Is it not the task of the physiologist to retrace the manifestations of spontaneous or reflex actions to their origin through an uninterrupted series of steps? Yet the psychophysicist will also have to investigate the first physical effect of a psychic cause.

Let us not be overwhelmed by unavoidable encroachments between physiology and psychology. They will not be greater than those which we observe, for example, between physics and chemistry. They do not prove anything against the validity of the boundary line which we have established, but merely indicate that, justified as it is, this division of sciences, like any other, is somewhat artificial. Nor will it be in any way necessary to treat twice, i.e., both in psychology and in physiology, the whole series of so-called psychophysical problems. In the case of each of these problems we can easily show which field contains the essential difficulty. Once this difficulty is solved, we have achieved the solution of the problem itself. Thus, it will definitely be the task of the psychologist to ascertain the first psychic phenomena which are aroused by a physical stimulus, even though, by so doing, he cannot dispense with an examination of physiological facts. In the field of spontaneous movements of the body, the psychologist will have to establish the ultimate and immediate psychic antecedents of the whole series of physical changes which are connected with them, but it will be the task of the physiologist to investigate the ultimate and immediate physical cause of sensation, even though he obviously must

also consider psychic phenomena. Likewise, with reference to movements that are due to psychic causes, the physiologist must establish within his own field their ultimate and proximate consequences.

Concerning the demonstration of the progressive relation which governs the development of physical and psychical causes and effects, and with reference to the research of the so-called "psychophysical law," it seems to me that the problem falls into two parts, one of which pertains to the physiologist, while the other is the task of the psychologist. The first consists in determining which relative difference in the intensity of physical stimuli corresponds to the least noticeable differences in the intensity of psychic phenomena. The second consists in investigating the reciprocal relationship that exists between these least noticeable differences. But is not the answer to the second question immediately and completely evident? Is it not clear that all the least noticeable differences must be considered equal? This had been the commonly accepted opinion. Wundt himself in his Physiological Psychology (p. 295) offers the following argument: "The just noticeable difference of intensity is...a psychic value of a constant magnitude. In fact, if a just noticeable difference were greater or smaller than another, it would be greater or smaller than the just noticeable, which implies a contradiction." Wundt does not realize that his argument involves a circular reasoning. If we doubt that all just noticeable differences are equal, we cannot consider the "just noticeable" as the specific property of a constant magnitude. What is actually evident

a priori is that all just noticeable differences are perceived as equal, but not that they are equal. Otherwise, if any equal increment should be perceived as equal and vice versa, any increment perceived as equal should be equal. But it is precisely this that must be investigated in the first place, and such an investigation, which belongs to the psychologist, since we are dealing here with laws of comparative judgment, could yield an altogether different result from the one expected. Is it not easier to perceive the apparent displacement of the lunar disc when the moon is on the horizon than when it is at the zenith, even though such a displacement is equal in both cases for equal amounts of time? On the other hand, the first task undoubtedly belongs to the physiologist. Here physical observations find application to the greatest extent. To be sure, it is not by mere chance that we are indebted to a physiologist of first rank, like E. H. Weber, for the introductory work on the law previously mentioned, and to a philosophically minded physicist, like Fechner, for its establishment within a more extended range.<sup>1</sup>

The definition of psychology which was given above, therefore, appears justified, and its position among its neighboring sciences clarified.

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<sup>1</sup>In this connection Fechner states: "External psychophysics has borrowed its techniques and method from physics. Internal psychophysics, on the contrary, leans on physiology and especially on the anatomy of the nervous system" (Psychoph., I, 11). And again he writes in the preface (p. X) "that this work will be of interest especially to the physiologist, even though at the same time it aims at attracting the interest of philosophers."

2. However, not all psychologists accept the definition of psychology as the science of the soul in the sense indicated above. Rather they define it as the science of psychic phenomena, and thereby place it on the same level as its sister science. Similarly, in their opinion, natural science should not be defined as the science of bodies, but rather as the science of physical phenomena.

Let us analyze the basis of this objection.

What is meant by the statement: science of psychic phenomena?; and by the statement: science of physical phenomena? The term "phenomenon" or "appearance" is often employed in opposition to actual and real being. Thus, we say that the objects of our senses, as revealed by sensation, are simple phenomena; that color, sound, warmth and taste do not exist really and truly outside our sensations, even though they pertain to objects which truly and really exist. Even John Locke experimented in this matter. After having warmed one of his hands and cooled the other, he immersed both of them simultaneously in the same water basin. He experienced warmth in one hand, and cold in the other, and thus proved that neither warmth nor cold really exist in water. Likewise, we know that a pressure on the eye can arouse the same phenomena as the rays which emanate from a so-called colored object. In the same way, with reference to judgments of distance, those who take appearances for true reality can easily be convinced of their error. Different perceived relations appear equal at different distances and those which are similar appear different at the same distance. It is for the same

reason that movement may appear as rest, and rest as movement. These facts prove beyond doubt that the objects of sensory experience are deceptive. But even if this could not be established so definitely, we should nevertheless question their veracity as long as we are not justified in assuming that there exists a real world which calls forth our sensations and to which their content bears certain analogies that are sufficient to account for the phenomena.

We have no right, therefore, to believe that the objects of so-called external perception really exist as they appear to us. In contrast to that which truly and really is, they are mere phenomena.

What has been said about the objects of external experience cannot be applied in the same way to those of internal experience. Concerning the latter no one has ever shown that he who considers his phenomena as truth would contradict himself. On the contrary, we have the clearest knowledge of their existence and that fullest certitude which is derived from immediate experience. Consequently, no one can really doubt that the psychic phenomena, which he perceives in himself, exist, and that they exist as he perceives them. Anyone who attempted to push his doubt this far would reach a state of absolute doubt, or skepticism, which would undoubtedly destroy itself, for it would have destroyed any firm basis upon which it could endeavor to attack knowledge.

In this respect, therefore, in order to unify natural science and psychology, we are not reasonably justified in defining the latter as the

science of psychic phenomena.<sup>1</sup>

The reason which generally motivates those who formulate such a definition of psychology, however, is altogether different. These authors do not deny the real existence of thought and will. They use the expression psychic phenomena or psychic manifestations as synonymous with psychic states, processes, events, as revealed by inner perception. Rather their stand against the old definition stems from the fact that this definition misinterprets the limits of knowledge. If we state that natural science is the science of bodies, considering bodies as a substance which acts on our sense organs and enables us to represent physical phenomena, we assume that the causes of external phenomena are substances. Likewise, if we assert that psychology is the science of the soul, designating by the term soul the substantial substrate of psychic states, we hold the conviction that psychic phenomena should be looked upon as properties of a substance. But what right have we to assume such substances? They are not, it is stated, an object of experience. Neither sensation nor inner perception reveal a substance to us. In one instance we find the phenomena of warmth, color and sound; in the other, the manifestations of thought, feeling and will. We do not observe a substance in which they inhere as properties. Such a substance is a fiction to which no reality corresponds and whose existence, even if it had one, could not be proved anyway. Obviously, therefore, it is not an object of science.

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<sup>1</sup>Kant, to be sure, has done this. But it was an error for which he has been reproached by many authors, in particular by Ueberweg in his System der Logik.



Neither natural science can be defined as the science of bodies, nor psychology as the science of the soul; instead, the former must simply be conceived as the science of physical phenomena, and the latter in a similar manner as the science of psychic phenomena. There is no soul, at least as far as we are concerned; nevertheless, there can and there must be a psychology; but, to use Albert Lange's paradoxical expression, it will be a psychology without a soul.<sup>1</sup>

We see that the idea is not as absurd as the expression makes it appear. Even according to this conception psychology still has a wide field of research.

A simple glance at the natural science supports this claim. All the facts and laws which this science investigates when it is conceived as the science of bodies, will also be investigated by it when it is viewed only as the science of physical phenomena. This is actually what is presently done by many famous natural scientists who, because of the noteworthy trend which is now bringing philosophy and the natural sciences closer together, are able to form a personal opinion on philosophical problems. By so doing, they in no way restrict the domain of the natural sciences. For them, just as for the others, the totality of the laws of coexistence and succession falls within the sphere of this science.

The same is true of psychology. The phenomena revealed by inner ex-

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<sup>1</sup>Geschichte des Materialismus, 1st ed., p. 465: "Let us calmly assume a psychology without a soul! And yet the name will still be useful, so long as we have something to study which is not completely covered by any other science."

perience are also subject to laws. Anyone who has engaged in scientific researches in the field of psychology acknowledges this, and the layman can easily and quickly find its confirmation in his own inner experience. Even those who deny the knowledge of the soul to psychology continue to consider the laws of coexistence and succession of psychic phenomena as the object of their research. In this respect they have a vast domain of important problems, most of which still await solution.

In order to make more intelligible the nature of psychology, as he conceived it, J. S. Mill, one of the most decisive and influential representatives of this doctrine, has given in his Inductive and Deductive Logic a synopsis of the problems which would constitute its object.<sup>1</sup>

In general, according to Mill, psychology investigates the laws which govern the succession of our psychic states, i.e., the laws according to which one of these states produces another.<sup>2</sup>

In his opinion, some of these laws are general, others specific. A general law, for example, would be the law according to which any psychic impression, whatever its cause be, can produce, in the absence of the cause which first aroused it, a similar, even though less vivid, phenomenon. To

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<sup>1</sup>VI, ch. 4, 3.

<sup>2</sup>Undoubtedly sensations are also psychic states. Their succession, however, is the same as the succession of the physical phenomena which they represent. Therefore, it is the task of the natural scientist to establish the laws of this succession insofar as it is dependent upon the physical stimulation of the sense organs.

every impression, he states, using Hume's terminology, there corresponds an idea. Similarly, there would also be certain general laws which determine the actual appearance of such an idea. He mentions three such "laws of association of ideas." The first is the law of similarity: "Similar ideas tend to evoke one another." The second is the law of contiguity: "When two psychic phenomena have been frequently experienced together, either simultaneously or in immediate succession, and one of these phenomena or its idea reoccurs, this phenomenon tends to arouse the other." The third is the law of intensity: "The greater vividness in one or in both impressions with reference to their reciprocal excitation is synonymous with a more frequent connection."

In addition, psychology must deduce from these general and elementary laws of psychic phenomena more specific and more complex laws of thought. Since several psychic phenomena often act together, he states, there arises the question of knowing whether or not any such instance is a case of union of causes; in other words, whether or not the sequences and the preliminary conditions have always the same relations as in the field of mechanics, where movement originating from other movements appears similar to its causes and in a certain way as their sum; or whether or not the psychic field presents also cases similar to the process of chemical mixture, where nothing is found in cinnabar of the particular qualities of mercury and sulphur. S. Mill personally considers the existence of both types of cases in the field of inner experience as an established fact. In certain cases a process would be analogous to the mechanical, in other cases, however, to the chemical

composition of forces. In fact, it might happen that several images coalesce in such a way that appear as one single and completely different image. Thus, for example, the image of extension and tridimensional space would develop from kinesthetic sensations.

This conception of psychology leads to a whole series of new investigations. In particular, the question will arise whether the state of belief<sup>1</sup> and the state of desire should be considered as instances of psychic chemistry, i.e., as the product of a fusion of images. Perhaps, Mill thinks, this question should be answered in the negative. However, even if it could be given an affirmative answer, it would nevertheless be certain that entirely new fields of investigation are opened here. Thus, there would arise the new task of ascertaining by means of special observations the laws of succession of these phenomena, i.e., ascertaining whether or not they stem from physico-chemical processes. With respect to belief, we would investigate which are our immediate beliefs; the laws according to which one belief engenders another; and the laws according to which a fact, rightly or wrongly, could be considered as the proof of another fact. With respect to desire, the primary task would consist in determining the original and natural objects of our desires, and the causes of our desires for things which are originally indifferent or even unpleasant.

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<sup>1</sup>Following the translators, I express the term belief with Glauben, even though this expression is not altogether adequate, because belief, as used by Mill, comprises any state of conviction or opinion and knowledge, as well as Glauben in the ordinary sense of the word.

In addition, there is another rich field in which the psychological investigation begins to interlace more than anywhere else with physiological investigations. The psychologist, according to Mill, has the task of investigating to what extent the production of a psychic state by another is influenced by a given physical state. Individual differences in sensitivity to the same psychic causes could have a threefold basis. They could be an original and ultimate fact, it could result from past experiences, and could be the consequence of a different physical organization. The attentive and critical observer, Mill thinks, would recognize that most aspects of a man's character find their explanation in training and external circumstances. The remaining aspects could only be explained indirectly and through organic differences. This explains not only the commonly recognized tendency of the deaf to mistrust, of the congenitally blind to lustfulness, of the physically handicapped to irritability, but also many other and less intelligible phenomena. Although, as Mill grants, there are other phenomena, especially instincts, which cannot be explained immediately through individual organization, nevertheless we see that a wide field of investigation is opened to psychology conceived as ethology, i. e., as the science of the laws of character formation.

Such is the general outline of psychological problems according to the point of view of one of the most important representatives of the conception of psychology as a purely phenomenological science. This changed conception and the point of view which leads to it do not narrow the field of psychology, as shown by the fact that, in addition to the problems mentioned by J. S. Mill

and to those implied by them, we could name others which are equally significant. Therefore, there is no lack of important tasks for the psychologists of this school to which at the present time belong men who deserve special credit for the advancement of science.

Nevertheless, the above conception of psychology seems to exclude a problem which is of such importance that its absence alone threatens to leave a serious gap in this science. According to this conception, the very investigation which the old psychology considered as its main task, the very problem which gave the first impetus to psychological research, apparently no longer needs to be raised—I mean the problem of immortality. Anyone familiar with Plato knows that above anything else it was the desire to ascertain truth concerning this problem which introduced him to the field of psychology. His Phaedon is devoted to it, and other dialogues such as the Phedrus, or the Timaeus, or the Republic repeatedly come back to it. The same problem emerges with Aristotle. Even though, I admit, he sets forth in less detail than Plato his proofs for the immortality of the soul, we would be mistaken if we concluded that for him this problem has become less important. In his Logic, where the doctrine of apodictical or scientific demonstration was necessarily the most important issue, he nevertheless condenses this problem in a few pages in the Second Analytics, which is in striking contrast to other quite extensive discussions of it. In his Metaphysics he speaks of the godhead only in a few short paragraphs in the last

book.<sup>1</sup> Avowedly, this idea was so essential to him that he not only called the totality of science wisdom and first philosophy, but he also explicitly called it theology. In the same way, in his treatise On the Soul he only discusses man's soul and its immortality with extreme brevity, even when he mentions them in more than a passing manner. Nevertheless, the classification of psychological problems at the beginning of this work clearly indicates that, in his opinion, man's soul and its immortality were the most important object of psychology. There we are told that the psychologist has the task of investigating first of all the essence of the soul, then its properties, some of which appear to inhere in it alone and not in the body, and as such are spiritual. Furthermore, he must investigate whether the soul is composed of different parts, or whether it is simple, and whether all the parts are bodily states, or whether some are not, in which case its immortality would be established. The manifold difficulties which are linked with the statement of these problems show that we are touching here upon a point which primarily aroused the curiosity of this great thinker. Therefore, it is this task, to which psychology first devoted itself, which has given this science the first impetus for its development. And it is precisely such a task which at the present time appears to have fallen into disrepute and to have become impossible, at least from the standpoint of those who reject psychology as the science of consciousness. In fact, it

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<sup>1</sup>I mean naturally book  $\Lambda$ ,

follows that, if there is no soul, there cannot be any question of the immortality of the soul.

This conclusion appears to be so obvious that we cannot be surprised if some partisans of the conception here developed, such as A. Lange, consider it self-evident.<sup>1</sup> Thus we would witness in psychology the same phenomenon which has been observed in the natural sciences. In fact, it was the alchemists' ambition to produce gold by means of mixtures which first instigated chemical researches, even though chemistry abandoned such an ambition as impossible after attaining its scientific maturity. But just like the promise of the dying father in the well known parable, the predictions made by our predecessors to us, the heirs of earlier researchers, have been fulfilled. The sons dug up with great industriousness the vineyard in which they believed a treasure was hidden. They did not find the buried gold, but the well tilled soil brought them more copious fruit. In a similar manner this is what happened to chemists, and would also happen to psychologists. By virtue of its progress science should forsake the question of immortality, but we could say with gratification that the arduous effort engendered by the desire of the impossible has led to the solution of other questions which are of far-reaching significance.

These two cases are obviously not identical. In place of the alchemists' dreams, reality has offered a higher substitute. In comparison with Plato's

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<sup>1</sup>Geschichte des Materialismus, 1st ed. p. 239.



and Aristotle's hope to reach certainty concerning the immortality of the soul, the laws of association of ideas, of the development of convictions and opinions, and of the origin and growth of desire and love, would hardly be a true compensation. The loss of this hope would appear to be by far more regrettable. Consequently, if the opposition between these two conceptions of psychology really implied the acceptance or rejection of the question of immortality, this issue would become of paramount importance and would compel us to undertake metaphysical researches concerning the existence of a substance as a substrate of psychic states.

There seems to be little justification, therefore, for the apparent necessity to limit the field of research in this connection. In his own time David Hume strongly opposed the metaphysicians who claimed to have found a substance as a substrate of psychic states. "For my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception, and never can observe anything but the perception. When my perception is removed for any time, as by sound sleep; so long as I insensible of myself, I may truly be said not to exist." If certain philosophers assert that they perceive themselves as a simple and permanent reality, Hume does not want to contradict them, but by his own experience and by the experience of everyone else (with the sole exception of this type of metaphysicians) he is convinced "that they are nothing else than a bundle of different perceptions, which succeed each other with an inconceivable

rapidity and are in a perpetual flux and movement."<sup>1</sup> It is clear, therefore, that Hume quite unequivocally ranks himself with the opponents of a psychic substance. Nevertheless, Hume himself points out that in a conception such as his all the proofs of immortality retain absolutely the same strength as in the traditional conception to which it is opposed. A. Lange, to be sure,<sup>2</sup> considers this declaration as a mockery, and it is possible that he is all the more entitled to this view, for, as it is known, Hume has not disdained elsewhere the weapon of malicious irony.<sup>3</sup> However, what Hume says is far from being as ridiculous as Lange, and perhaps he himself might think. In fact, even though it is self-evident that those who deny the existence of a psychic substance cannot speak of the immortality of the soul in the proper sense of the word, nevertheless it does not follow that the question of immortality loses all meaning because of the denial of a substrate of psychic phenomena. This becomes immediately evident if one recognizes that with or without a psychic substance in no way can a certain permanence of our psychic life here on earth be denied. If a thinker rejects the existence of a substance, he must assume that such a permanence

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<sup>1</sup>Treatise of Human Nature, IV, Sec. 6.

<sup>2</sup>Geschichte des Materialismus, p. 239.

<sup>3</sup>A. Bain says of him: "As he was a man fond of literary effects, as well as of speculation, we do not always know when he is in earnest." Mental Science, 3rd ed., p. 207.

does not require any substrate. And the question of the survival of our psychic life after death will not lose its meaning for him anymore than it does for others. It is altogether inconsistent for such a thinker to reject on the basis of the above mentioned arguments the question of immortality in this one essential meaning, i.e., immortality of life as opposed to immortality of the soul.

This has been fully recognized by J. S. Mill. In the passage of his Logic which was quoted above we find that the question of the immortality is not included among the problems to be handled by psychology. In his work on Hamilton, however, he has developed with utmost clearness the same idea which we have just formulated.<sup>1</sup>

Likewise, at the present time in Germany no important thinker has expressed his rejection of a substrate both for psychic and physical states as often and as categorically as T. Fechner. In his Psychophysics, in his Theory of Atoms, and in other writings, he levels his criticism against this conception sometimes in earnest, sometimes in jest. Nevertheless, he expressly acknowledges his belief in immortality. It is clear, therefore, that, even if one accepts the metaphysical standpoint which led modern psychologists to substitute the definition of psychology as the science of

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<sup>1</sup>Examination of Sir W. Hamilton's Philosophy, ch. XII: "As to immortality, it is precisely as easy to conceive that a succession of feelings, a thread of consciousness, may be prolonged to eternity, as that a spiritual substance forever continues to exist; and any evidence which proves the one, will prove the other."

psychic phenomena for the traditional one as the science of the soul, the field of psychology would not thereby be restricted in any way, and above all it would not suffer any essential loss.

However, it is just as inadmissible to accept this view without a thorough metaphysical investigation, as it is to reject it without proof. If on the one hand some eminent men have called into question and denied the substrates of phenomena, on the other there have been and still are scientists of great fame who firmly adhere to their existence. Concerning this issue, H. Lotze and, among contemporary English empiricists, H. Spencer,<sup>1</sup> agree with Aristotle and Leibniz. Similarly, with his characteristic frankness, in his work against Hamilton<sup>2</sup> J. S. Mill has recognized that the rejection of a substance as substrate of phenomena, especially in the physical field, is not free from difficulties and uncertainties. Consequently, if the new definition of psychology were connected with the new metaphysical doctrine just as inseparably as the old definition was with the old metaphysics, we would be forced either to look for a third one, or to descend into the abysmal depths of metaphysics.

Fortunately, the opposite is true. There is nothing in the new definition of psychology which would not be acceptable to the followers of the old school. Whether there is a soul or not, the fact is that there are

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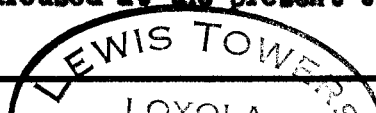
<sup>1</sup>Cf. his First Principles.

<sup>2</sup>Exam. of Sir W. Ham. Philos., ch XII.

psychic phenomena; in addition, no one who accepts the theory of the substantiality of the soul will deny that whatever can be established with reference to the soul is also related to psychic phenomena. Nothing, therefore, stands in our way, if, instead of defining psychology as the science of the soul, we adopt the modern definition. Perhaps both definitions are correct. Nonetheless, there exist between them the difference that the old definition contains metaphysical presuppositions from which the modern one prescind; that the latter is recognized by contrasting schools, while the former already bears the imprint of a special school; that one, therefore, frees us from general preliminary researches to which the other would bind us. Consequently, the adoption of the modern conception simplifies our work. Furthermore, besides the facilitation of the task, it has another advantage: any exclusion of an unrelated question not only simplifies, but also adds vigor to our investigation. It shows that the results of our investigation are dependent on a lesser number of preliminary conditions and thus lends greater certitude to our convictions.

Consequently, we define psychology as the science of psychic phenomena in the sense indicated above. The preceding discussions appear sufficient to clarify the general meaning of this definition. Whatever evidence is lacking in this connection will be provided by our subsequent investigation of the difference between psychic and physical phenomena.

3. If we wanted to compare the relative value of the scientific field which we have just described with that of the natural science, using as a measuring rod only and exclusively the interest aroused at the present time



by these two types of investigations, psychology would undoubtedly be overshadowed. It is different if we compare their respective objects of research. We have seen what kind of knowledge the natural scientist can obtain. The phenomena of light, sound, heat, place and local movement which he studies are not things which really and truly exist. They are signs of something real, which through its action produces their image. They are not, however, an adequate image of this reality, giving us knowledge of it only in a very incomplete sense. We can say that there exists something which under certain conditions becomes the cause of a particular sensation. Likewise, we can show that there must be relations which are similar to those that manifest spatial phenomena, size and form. But this is as far as we can go. Reality is not given to us as such in these phenomena, and the latter are not real. The truth of physical phenomena is, to use a common expression, only a relative truth.

It is a different matter with reference to the phenomena of inner perception. These are true in themselves. They are in reality as they appear, as attested by the evidence with which they are perceived. Who could deny, therefore, that this constitutes a great advantage of psychology over the natural sciences?

The high theoretical value of psychological knowledge is also evident in another respect. The dignity of science increases not only according to the manner in which it is known, but also with the value of its object. Psychic phenomena transcend physical phenomena not only insofar as they are

true and real in themselves, but also insofar as they are incomparably superior to them in beauty and sublimity. Opposed to color and sound, extension and movement, we find sensation and imagination, judgment and will with all the grandeur which they acquire through the ideas of the artist, through the investigations of the great thinker, and through the self-dedication of the virtuous man. It is evident, therefore, that also in this respect the task of the psychologist is more noble than that of the natural scientist.

Moreover, we can say that what agrees with our interests attracts us more than what is foreign to them. We are more eager to know the order and origin of our solar system than that of another distant group of celestial bodies. The history of our country and our ancestors attracts our attention more than that of other people with whom we are not closely related. This fact constitutes another reason which confers upon the science of psychic phenomena a surpassing value, for these phenomena constitute what is most peculiar to us. In fact, several philosophers have conceived the self either as a mere sum of psychic phenomena, or as the substrate of these phenomena; and in everyday usage we say that physical changes are external, while psychic phenomena take place within us.

These are very simple considerations which can easily convince anyone of the great theoretical significance of the field of psychological knowledge. But even from the point of view of practical significance--and perhaps this is what might surprise us most--its questions are not inferior to

the questions which occupy the natural sciences. Even in this respect there is hardly any other branch of science which can be placed on the same level with psychology unless it is somewhat entitled to the same consideration insofar as it constitutes an indispensable preparatory step for it.

Let me point out merely in passing that psychology contains the roots of aesthetics which in a more advanced stage of development will undoubtedly sharpen the eye of the artist and assure his progress. Likewise, suffice it to say that the important art of logic, a single improvement of which involves innumerable advances in science, also derives its nourishment from psychology. In addition psychology has the task of becoming the scientific foundation of a doctrine of education, both of the individual and of society. Along with aesthetics and logic, ethics and politics also stem from the field of psychology. This science, therefore, appears as the fundamental condition of the progress of mankind on the very plane of those activities that are most highly valued by us. Without the use of psychology, the solicitude of the father, as well as that of the political leader, remains an awkward groping. It is because until now there has been no systematic application of psychological principles in the political field, and even more because the leaders of peoples almost without exception remain in complete ignorance of these principles, that we could assert with Plato and also with many contemporary thinkers that, no matter how great the fame, no true statesman has as yet made his appearance in history. Even before physiology was systematically applied to medicine, there was no lack of famous physicians, as shown by the



great confidence won by them and by the astonishing cures attributed to them. No one who is acquainted with medicine today can deny the impossibility that prior to the last several decades there had been a single really great physician. They were all blind empiricists, more or less skillful, and more or less favored by luck. They were not, and could not be what a trained and discerning physician must be. Up to the present time, we have to say the same thing of our statesmen. The degree to which they are merely blind empiricists is demonstrated every time that an extraordinary event suddenly changes the political situation, and even more clearly every time that anyone of them is transplanted in a foreign country where conditions are different. Forsaken by their empirically derived principles, they become utterly confused and incompetent.

How many evils could be remedied, both on the individual and social level, either through an exact psychological diagnosis, or through knowledge of the laws according to which a psychic state can be modified! What an increment in spiritual strength mankind would attain if the fundamental psychic conditions which determine the different aptitudes of the poet, of the scientist, and of the shrewd businessman could be fully ascertained beyond any doubt by means of psychological analysis! If this were so, we could know the tree right from its first leaves even before it bears fruit, and thus could immediately plant it in the place that is suited to its nature. These aptitudes are undoubtedly very complex phenomena and remote products of forces, the original influence of which does not allow us to anticipate the consequences from the antecedents with any degree of certainty than the

form of the first buds can foreshadow the fruit which the tree will bear. In both instances, however, we are dealing with relationships that are subject to similar laws. Consequently, just as botany formerly has succeeded in its predictions, a sufficiently developed psychology could likewise achieve success. Thereby and in many other ways its influence would become most beneficial. Thus psychology alone would perhaps be in a position to offer us the means to react against that decadence which from time to time unfortunately interrupts the otherwise steadily ascending development of culture. It has been pointed out for a long time and rightly that the often used metaphorical expressions: "old nation," "old civilization," are not strictly appropriate because, while the organism regenerates itself only in an incomplete manner, society renews itself completely in each generation. For this reason we should speak only of diseases of peoples and epochs. However, they are diseases which up to now have always appeared periodically, and which, because of lack of medical art, have consistently resulted in death, so that, even if a true essential identity may be lacking, the similarity between external phenomena and the process of aging is undeniable.

It is evident that the practical task which I assign to psychology is far from being insignificant. Is it conceivable, however, that psychology will ever really approach this ideal? The doubt appears well grounded. From the fact that up to now and through thousands of years psychology has made practically no progress, some people might believe that they can draw the undeniable conclusion that also in the future it will offer little ser-

vice to the practical interests of mankind.

The answer to this objection is close at hand. Such an answer follows from a simple analysis of the place which psychology occupies in the system of sciences.

The general theoretical sciences form a kind of gamut in which each higher step is erected on the basis of the lower one. The higher sciences investigate more complex phenomena, the lower ones phenomena that are simpler, but which contribute to that complexity. The progress of the higher sciences naturally presupposes that of the lower ones. It is, therefore, self-evident that, apart from certain weak empirical antecedents, the former will attain their development subsequent to the latter. In particular they will not be able to reach at the same time as the latter that state of maturity in which they can be in a position to meet the vital needs of life. Thus, we see that mathematics had long been turned to practical applications, while physics still lay dozing in the cradle and did not give the least sign of its capacity, subsequently proved so brilliantly, to be of service to the needs and desires of life. In its turn, physics had long attained fame and manifold applications when chemistry through Lavoisier discovered the first firm basis on which it leaned in the next few decades to give a new orientation, if not to the earth, at least to agriculture and to many other spheres of practical activity. Similarly, chemistry had already obtained many fine results, while physiology had yet to be born. And it is not necessary to go back many years to find the beginnings of a more promising development in physiology which immediately afterwards led to applied experiments. Even

though incomplete, these experiments served to demonstrate that it would only be from physiology that a re-birth of medicine could be expected. That physiology developed itself so late can easily be explained. Its phenomena are more complex than those of the earlier sciences and are dependent upon them, just as the phenomena of chemistry are dependent upon those of physics and the phenomena of physics are dependent upon those of mathematics. But it is just as easy to understand why psychology has not borne more copious fruit until now. Just as physical phenomena are under the influence of mathematical laws, and chemical phenomena under the influence of physical laws, and those of physiology under the influence of all these laws, so psychological phenomena are influenced by the laws of organic forces. If through direct experience we knew absolutely nothing of the state of earlier psychology, and were acquainted only with the history of the other theoretical sciences and with the recent birth of physiology or of chemistry, we could affirm, without the least trace of skepticism concerning psychological matters, that psychology has as yet not achieved anything, or that it has achieved very little, and that at the most it is only in recent years that it has shown a tendency toward a more vigorous development. It goes without saying that the most important fruits that psychology can possibly bear, which would be of value for practical applications, lie in the future. If we directed our attention to the history of psychology, we would only find in its past sterility a confirmation of our expectations; in no way would we find ourselves committed to an unfavorable judgment upon its future results.

The backward condition in which psychology has remained up to now appears unavoidable, even if we do not doubt the possibility of a rich development in the future; and that there is such a possibility is shown by its promising, even though weak beginning. Once a certain degree of attainable development is reached, the practical consequences will not fail to materialize. For the individual and even more for the masses, where the imponderable circumstances which hinder and foster progress reach a state of equilibrium, psychological laws will constitute a more solid foundation for practical affairs.

We can, therefore, hope in all confidence that psychology will not always be lacking both in inner perfection and in useful applications. The needs which it must satisfy have already become urgent. The turmoil of social conditions, more than the imperfections in navigation and railway commerce, in agriculture and in hygiene, urgently demands a remedy. The questions to which we would have paid little immediate heed are attracting the attention of the public. Many have already recognized the essential task of our time. We could mention several great scientists who are devoting their efforts to this end by the investigation of psychic laws and by methodological investigations which will enable us to draw from them their practical consequences and to assure their applications in everyday life.

It cannot possibly be the task of political economy to put an end to the present confusion and to re-establish in society the peace which has been lost at an increasing rate through changing conflicts of interests.

This practical discipline has a role to play in this connection, but neither the whole task nor the major part of it depends upon it. The growing interest which is being accorded to it can nevertheless corroborate these statements. In the introduction to his Principles of Political Economy, J. S. Mill has touched upon the relation between this science and psychology. The differences in the production and the distribution of goods by different peoples and at different times, in his opinion, would depend to a certain extent on differences in physical knowledge, but they would also have psychic causes. "Insofar as," he continues, "the economical condition of nations turns upon the state of physical knowledge, it is a subject for the physical sciences, and the arts founded on them. But insofar as the causes are moral or psychological, dependent on institutions and social relations, or on the principle of human nature, their investigation belongs not to physical, but to moral and social science, and it is the object of what is called Political Economy."

It seems beyond doubt, therefore, that in the future, and up to a certain degree perhaps in a future which is not too far away, psychology will exert a considerable influence upon the practical aspects of life. In this sense we could characterize psychology, as others have already done, as the science of the future, i.e., as the science to which more than to any other theoretical science the future belongs, which more than any other will mold the future, and to which in the future any other science will subordinate itself in its practical application and be of service to it. This will undoubtedly be the status of psychology once it reaches maturity and is capable of effective action. Aristotle called politics the master art to

which all the others serve as subsidiaries. As we have seen, however, in order to be what it should be, it is necessary that politics heed the teaching of the natural sciences. Its teaching, I might say, will only be a changed synthesis and further development of psychological principles directed toward the attainment of a practical goal.

We have advanced four reasons which appear adequate to show the prominent importance of psychology: the inner truth of the phenomena which it investigates, the sublimity of these phenomena, their special relationship to us, and finally the practical importance of the laws which govern it. To these we must add the special and incomparable interest which psychology possesses insofar as it instructs us about immortality and thus becomes in a new sense the science of the future. The problem of our hope in a life to come and in our participation in a more perfect world condition belongs to psychology. As we have indicated, this science has made several attempts in the past to solve this problem, and it does not seem that all its efforts in this direction have been without success. If this is really the case, we have here without doubt its highest theoretical achievement which in its turn is both susceptible of the greatest practical results and lends new value to its other theoretical achievements. When we depart from this life, we separate ourselves from all that is subject to the laws of natural science. The laws of gravitation, of sound, of light and electricity disappear together with their phenomena which experience had established. Psychic laws, on the contrary, retain the same value in the life to come as they do in our present life, insofar as this life is immortal.

At the beginning of his treatise On the Soul, Aristotle with good reason placed psychology above all the other sciences, even though in so doing he took into consideration exclusively its theoretical advantages. "If," he says, "we hold that, while knowledge is a thing to be honored and prized, one kind of it may, either by reason of its greater exactness or of a higher dignity and greater wonderfulness in its object, be more honorable and precious than another, on both accounts we should naturally be entitled to place in the front rank the study of the soul." What undoubtedly causes surprise is the fact that Aristotle here asserts that even by reason of its exactness psychology is superior to the other sciences. For him the exactness of knowledge is associated with the imperishability of the object. According to him that which changes continuously and universally escapes scientific investigation, whereas that which is most permanent possesses most of all unchanging truth. Whatever the case, we cannot deny that psychological laws possess the character of permanent and important truth.



## CHAPTER II

### THE METHOD OF PSYCHOLOGY WITH EMPHASIS UPON EXPERIENCE WHICH CONSTITUTES ITS FOUNDATION

1. Scientists have come to pay special attention to the method of psychology. In this respect, we can say that no other general theoretical science is as remarkable and instructive as psychology on the one hand and mathematics on the other.

These two sciences are related to one another as are opposite poles. Mathematics considers the most simple and independent phenomena; psychology those that are most dependent and most complex. Consequently, mathematics shows with evident clarity the fundamental nature of all true scientific investigation. Nowhere better than in this science can we grasp the first clear intuition of what constitutes law, deduction, hypothesis, and many other important logical concepts. Pascal had a real stroke of genius when he turned to mathematics to get a better understanding of certain basic concepts in logic, and to eliminate the confusion which had been introduced into it by distinguishing the essential from the non-essential. Psychology alone, on the contrary, demonstrates all the richness to which the scientific method lends itself, insofar as it attempts to adapt itself successively to increasingly more complex phenomena. Both shed light on the methods of investigation which are applied by the intermediary sciences. The basis of their distinctive characteristics, the increase in difficulty in proportion to the greater complexity of phenomena, and the simultaneous refinement of

techniques which to a certain extent at least compensate for the increase in difficulty—all this, it is true, comes to light most clearly when we compare the first with the last link of the uninterrupted chain of sciences.

More light would undoubtedly be shed if the method of psychology were more clearly known and more fully developed. In this respect there remains much to be done, since the progress of science is accompanied by progressive increase in the true understanding of its method.

2. Psychology, just as the natural science, is based upon perception and experience. Above all, however, its source is to be found in the inner perception of our own psychic phenomena. If the inner perception of our phenomena did not reveal it to us, we would never gain knowledge concerning imagination, judgments, pleasure or pain, desires or aversions, hopes or fears, courage or despair, decisions and voluntary intentions.

However, let it be kept in mind we said that inner perception, and not inner observation, is the first and indispensable source of psychology. These two concepts are far from being synonymous. By its very nature inner experience can never become inner observation. We can observe objects which, as we are accustomed to say, are perceived outside of us. In order to form an exact conception of a phenomenon, we direct all our attention to it. But this is absolutely impossible with reference to the objects of inner experience. This is especially evident with regard to certain phenomena such as anger. If we try to observe the anger which stirs us, by this very fact the latter would have already simmered down, and the object of observation would

have disappeared. This same impossibility is also present in all the other cases. It is a universally valid psychological law that we can never focus our attention upon the object of inner experience. We will discuss this issue more in detail later on. For the moment suffice it to call attention to the personal experience of any unbiased person. Even those psychologists who admit the possibility of inner observation point out the exceptionally great difficulty that is involved in it. This is a clear admission that such an observation eludes their efforts in most cases. Moreover, in those exceptional instances in which they believe they have been successful, they are undoubtedly victims of an illusion. It is only when we turn our attention to another object that we are able to perceive simultaneously the psychic phenomena which are involved in it. Thus the observation of psychic phenomena in external perception, while offering us a basis for the understanding of nature, can also become at the same time a means of psychic knowledge. Indeed, the application of our attention to psychic phenomena in our imagination is, if not the exclusive, at least the proximate and principal source of knowledge of psychic phenomena.

It is not without reason that we underline this difference between inner perception and inner observation and emphasize the fact that only the former takes place in our psychic phenomena. Until now, to my knowledge, no psychologist has drawn this distinction. In addition, the indiscriminate interchange of these two terms has led to many unwholesome consequences. I know of examples of young people who, desiring to devote themselves to the

study of psychology, were about to doubt their own ability at the threshold of science. They had been directed to inner observation as the main source of psychological knowledge, and repeatedly had made strong efforts to resort to it. All these efforts had been useless inasmuch as the only thing that they had been able to reap was a tumult of confused ideas and numerous headaches. Consequently, they reached the conclusion, which was in any case justified, that they did not possess the capacity for self-observation, and on the basis of the notion which had been imparted to them had come to believe that they lacked aptitude for psychological investigation.

Others who were not prevented in this way, as if deterred by a specter, from entering into the field of psychology fell victims of different errors. Many attempted to view psychic phenomena, especially those which appear in our imagination, as physical phenomena, thus confusing elements which are most disparate and heterogeneous. The preceding remarks concerning the advantage which psychology can draw from the attentive study of our imagination offer a clear explanation of this misconception. But as long as such a misconception had not been rectified, it was obviously impossible both to achieve a classification of psychic phenomena and to establish in a satisfactory manner the properties and laws of each class. The confusion concerning psychic phenomena was naturally accompanied by further confusion. For this reason the would-be field of observation has often served as an arena of arbitrary ideas. Forlage gives us numerous proofs of this in his System of Psychology as Empirical Science from the Observation of the Internal

Sense. He is not alone, however. Lange's comment about him in his History of Materialism is entirely correct: "First he fashions for himself an internal sense to which he attributes a series of functions which are generally assigned to external senses; then he defines his field of observation" (stating that the field of observation of psychology is man, insofar as he is perceived by the internal sense) and begins to observe." The critique becomes caustic, but not without truth, when Lange goes on to state: "It would be quite useless to offer a prize to anyone who should search out a single real observation in his two thick volumes. The whole book deals in general propositions, with a terminology of his own making, without a single definite phenomenon being described, of which Fortlage could tell us when and where he observed it, or how we must proceed in order to observe it. We are very nicely told how, e.g., in considering a leaf, as soon as we are struck by its form, this form becomes the focus of attention, 'of which the necessary consequence is that the gamut of forms, fusing with the form of the leaf according to the law of similarity, becomes clear to consciousness.' We are told that the leaf now 'in the space of imagination disappears in the gamut of forms,' but when, how and where this ever occurs, and upon what experience this bit of 'empirical' knowledge is actually based remains just as obscure as the mode and manner in which the observer applies the 'inner sense,' and as obscure as the proof that he gives for such a sense. It is in view of this perhaps, that he was not able to crystalize his own guesses and haphazard

inventions into a system."<sup>1</sup>

On the other hand, these errors which by no means have remained isolated —up to this day the inner observation of the actual psychic phenomena which manifest themselves to us has been a universally accepted dogma in psychology —have brought about a critique of this conception. Psychologists came to realize that such inner observation really does not exist. At the same time, however, they failed to distinguish between observation and perception, and as a result came to deny the possibility of inner perception.

Comte has fallen victim of this mistake.<sup>2</sup> He calls "illusory" that psychology which "pretends to accomplish the discovery of the fundamental laws of the human mind by contemplating the mind in itself." "Lately, through peculiar subtlety, one has come to distinguish two types of observations of equal importance, i.e., external and inner observation, of which the latter is exclusively devoted to the study of intellectual phenomena. At this point I must restrict myself to mentioning the main line of reasoning which proves beyond doubt that this supposedly direct contemplation of the mind by itself is a pure illusion. Not long ago it was believed that seeing had been explained by saying that the influence of luminous objects projects on the retina images of their external form and color. To this the physiologists with good reason have objected that, if light impressions acted like

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<sup>1</sup>Geschichte des Materialismus, p. 466.

<sup>2</sup>Cours de Philosophie Positive, 6th ed. (Paris, 1864), I, 30ff.

images, another eye would be needed to see them. Does not this apply even more in our case? In fact, it is clear that on account of an ineluctable necessity the human mind can observe directly all phenomena except its own, since there is no one here who can perform the observation." According to Comte, with respect to moral phenomena, we could assert that the organs of which these phenomena are a function are distinct from those of which thinking is a function, so that the only circumstance standing in their way is that every pronounced affective state is necessarily incompatible with the state of observation. "But it is obviously impossible to observe in the same manner intellectual phenomena while they are taking place. The thinking subject cannot divide himself into two parts, one of which would reason, while the other would observe its reasoning. In this instance, the observing and observed organ being identical, how could observation take place? The very principle upon which this so-called psychological method is based, therefore, is invalid. Moreover, let us consider to what entirely contradictory procedures this method immediately leads. On the one hand we are told to isolate ourselves as much as possible from every external sensation, and especially to restrain ourselves from all intellectual work; even if we were only dealing with the most simple mathematical calculation, what would then happen to 'inner' observation? On the other hand, after having finally attained through these measures this state of perfect intellectual sleep, we should devote ourselves to the contemplation of the operations which are occurring in our mind when nothing goes on in it any longer. To their amusements, our descendants will undoubtedly witness the disavowal of such an

assumption."

Thus Comte rejects inner observation, of which he has rightly recognized the impossibility, even though the explanation which he offers in this connection is of dubious value. But at the same time and without discrimination he rejects also the inner perception of our intellectual phenomena. And what does he offer us in exchange? "I am almost ashamed of saying it," S. Mill remarks in his critique of Comte, "it is phrenology." In this critique he easily succeeded in showing that the idea of judgment or reasoning could never have been derived from phenomena which are revealed to us by external perception. Nevertheless, Mill has not been completely fair to the element of truth contained in Comte's remarks. For this reason his opinion did not carry enough weight to prevent the theory which he opposed from being well received by many of his countrymen. Likewise, in his Physiology and Pathology of the Mind,<sup>1</sup> Maudsley rejects self-consciousness as a source of psychological knowledge. His main reason is essentially Comte's argument to which he himself explicitly refers. This argument, however, carries more weight with him because in opposition to the French thinker he considers the same nerve centers as the seat of both moral and intellectual phenomena. Maudsley does not firmly adhere to the consequences which stem from it, and here and there he even recognizes a certain secondary importance to the testimony of self-consciousness, which actually he ought to deny entirely.

Similarly, in Germany the confusion of inner observation and inner per-

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<sup>1</sup>German trans. R. Böhm (Würzburg, 1870), p. 9 and 35.



ception and the entanglement stemming from it, of which we talked above, led A. Lange to deny inner perception. According to him, Kant's own remarks on the consequences of attempts at inner observation show that we are not entitled to distinguish, as this philosopher does, an external sense and an inner sense which would observe psychic phenomena. Kant himself stated that such attempts constitute "the very path that leads to mental derangement," and that here we "pretend to discover in us what we ourselves have introduced." But the confusion which Lange finds in Fortlage suggests to him the idea that "it is quite impossible to draw a fixed line between internal and external observation." For example, concerning so-called subjective colors or tones, he asks himself into which of the two fields they should be placed. He would not ask such a question if he had not found that the investigation of colors which appear in imagination should belong to the observations of the inner sense. Moreover, availing himself with good reason of the relationship between the attentive consideration of the phenomena which we represent in our imagination and the observation through the sense of sight, he proceeds to declare "that the nature of all and every observation is the same, and that the difference depends primarily on whether an observation is such that it may also be made by others at the same time or later, or whether it evades any such control and verification."<sup>1</sup> Like Comte, therefore, together with inner observation, he rejects inner perception, accepting only external perception, of which he

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<sup>1</sup>Gesch. d. Mat., p. 469.

criticizes only the inappropriateness of the term.

Thus the same omission of a single distinction has led many authors into diametrically different errors. That we are here dealing with errors should be evident from the preceding analysis. However, it will become even more evident when we treat of the difference between physical and psychic phenomena, and of inner consciousness.

The inner perception of our own psychic phenomena, therefore, is the first source of the experiences which are indispensable for psychological investigation. But this inner perception must not be confused with an inner observation of states which exist within ourselves, since such an observation is quite impossible.

3. It is evident that in this connection psychology finds itself at a great disadvantage with respect to the other general sciences. Although many of these sciences, especially astronomy, lack experimentation, none of them lack observation.

Psychology would actually become impossible if it could not remedy this lack. Up to a certain point, however, it can find a substitute through the observation of past psychic states in memory. The latter has often been presented as the best means for attaining knowledge of psychic states. Followers of different orientations are in agreement on this point. Herbart has made explicit reference to it; and J. S. Mill points out in his essay on Comte that it is possible to study by means of memory a psychic phenomenon immediately following its manifestation. "And this is," he adds, "really the manner in which we generally acquire the most meaningful part of our

knowledge of psychic acts. We reflect on what we have done, once the act is completed, but its impression is still fresh in our memory."

If the disappearance of the phenomenon makes it impossible to observe the anger which stirs us, it is clear that a state of prior excitation can no longer be aroused. We can, however, bring our attention to bear upon a past psychic phenomenon, as well as upon a present physical one, and to this extent are able to observe it. Furthermore, we could say that it is even possible to undertake experimentation on our own psychic phenomena along this line. In fact, through different means, we can call forth intentionally certain psychic phenomena in order to find out if other phenomena are connected with them as their consequence. It is, therefore, in our memory that we consider with all calmness and attention the result of this attempt.

It seems, therefore, that at least one of the drawbacks previously mentioned can be remedied. In all the experimental sciences memory makes possible the accumulation of observed facts in behalf of the establishment of general truths; in psychology, it makes possible at the same time the observation of the facts themselves. Undoubtedly, the psychologists who believed they had observed their own psychic phenomena in inner perception had really operated along the lines mentioned by Mills in the passage quoted above. They had turned their attention on recent acts, whose impression was still fresh in their memory.

To be sure, what we may call memory observation is obviously not a complete equivalent of the true observation of present events. As everyone

knows, memory is subject to many illusions, while inner perception is infallible and excludes all doubt. Insofar as the phenomena which are retained in memory take the place of those present in inner perception, they introduce in this field uncertainty and the possibility of manifold illusions. And once we grant that these illusions are possible, we have to admit also that they actually occur, inasmuch as it is with respect to our own psychic acts that we find it most difficult to achieve that unbiased frame of mind which is nevertheless a necessary condition for all observation.

It is for this reason that while some authors extoll the infallibility of self-consciousness, others, for example Maudsley,<sup>1</sup> consider it entirely untrustworthy. The former appeal to the evidence of inner perception, while the latter can fall back on numerous illusions which befall not only those who are mentally sick, but to a certain point also all men with respect to their own selves. This explains why psychologists have often been in disagreement on this point, even though the solution of the problem was given immediately in inner perception. What opened the door to doubt was the fact that the observation could take place only in memory. If even today there is disagreement on whether every psychic phenomenon is accompanied by an emotion, be it pleasure or displeasure, this is the consequence of the confusion which we have just pointed out. Without such a confusion the funda-

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<sup>1</sup>Loc. cit., 9 ff.

mental question concerning the highest classes of psychic phenomena would have been solved decisively long ago. The obstacle is so great that we shall often find ourselves in the position of having to refute by means of a formal argumentation and reductio ad absurdum opinions which can immediately be recognized as false precisely through the evidence of inner perception.

Nevertheless, no matter how great may be the disadvantage which is associated with the defective trustworthiness of memory, it would obviously be an extravagant exaggeration to deny on this basis all value to our own inner experience. If the testimony of memory could not be utilized by science, not only psychology, but also all the other sciences would become impossible.

4. There remains another circumstance which threatens to place psychology in a state of even greater inferiority with regard to the natural sciences. All that we apprehend in inner perception and subsequently observe in our memory are psychic phenomena which have taken place in our own life. Every phenomenon which does not belong to the course of the life of the individual lies outside of his sphere of knowledge. But no matter how rich in remarkable phenomena a life may be--and every life, even the poorest, shows a marvelous fullness--is it not clear that it must be poor in comparison with what is hidden in thousands of other lives and thus escapes our inner perception? This limitation is so very obvious that, as far as inner life goes, the relationship between two human individuals is

in no way comparable to that which exists between two inorganic beings of the same species, e.g., between two drops of water. In the physiological field two individuals of the same species always show certain differences; the same also applies, but to a much greater degree, to the psychological field. Even when, as it is said, there exists the most intimate spiritual kinship between two men, the difference remains so pronounced that there are still occasions in which one can neither agree with the other nor understand his conduct. How great then are the differences and contrasts in talents and character structure which appear in other instances, for example, when we compare the individual aptitudes of a Pindar and an Archimedes, a Socrates and an Alcibiades, or even when we oppose generally the masculine and feminine characters? Not to mention cretins and insane people whom we consider abnormal or sick. Consequently, when we restrict our observation to one single individual, is it not inevitable, so to say, that our view of psychic phenomena is extremely incomplete? Will we not inevitably fall into the error of mistaking individual characteristics for general traits? This is undoubtedly the case, and the disadvantage appears all the greater because our own psychic life is never accessible to our investigation in all its full development. No matter how far back our memory may occasionally reach, the first beginnings of our psychic life are surrounded by an impenetrable fog. Yet it would be these very beginnings which would make it possible for us to acquire the best knowledge of the most general psychic laws, since in the beginning the phenomena appear in

the most simple form, while later on every psychic impression contains certain after-effects, so that we find ourselves in the presence of an inextricable and infinitely complicated maze of innumerable causes.

The disadvantage of such a situation is also evident in another respect. Just as the object of observation is unique---a unique life of which, as we have said, we can only have a partial glimpse,---so the observer himself is unique, and no one else can control his observation. Inner perception does not allow me to comprehend the psychic phenomena of another individual, just as it does not allow the latter to grasp mine. On this point, too, the natural sciences appear to be in a much more favorable position than psychology. The same solar eclipse and the same comet can be perceived by thousands of individuals. The observation made by a single individual and which no one else could confirm,---for example, the observation of a new planet supposedly seen by an astronomer, but which another astronomer would not be able to verify,---would be received with less confidence and assurance.

The experimental foundation of psychology, therefore, would always remain insufficient and unreliable, if this science were to confine itself to the inner perception of our own psychic phenomena and to their observation in memory.

However, this is not the case. Apart from the direct perception of our own psychic phenomena we have an indirect knowledge of the psychic phenomena of others. The phenomena of inner life, so to say, manifest themselves externally, i. e., they involve modifications which can be the object of external perception.

This exteriorization is most complete if we describe these phenomena at the very instant they manifest themselves. This description would undoubtedly be incomprehensible or rather impossible if the difference between the psychic lives of two individuals was such that they did not contain any common element. In this instance they would exchange their ideas as an individual who is born blind and another who is deprived of the sense of smell would do if they attempted to exchange the knowledge of the color and the odor of a violet. But this is not the case. On the contrary, we are obviously capable of mutually understanding one another and of representing to ourselves the psychic states experienced by another person during a state of fever or other abnormal conditions on the basis of his description. Similarly, when an educated man wants to give an account of his inner states, he is not at a loss to find the necessary words with which to express himself. On the one hand, this fact demonstrates that individual differences among persons and among psychic states are not so pronounced as one might have suspected and that, if we consider only their specific character, any individual who is not deprived of a sense organ, is not abnormal or immature, finds in his inner experience the whole gamut of psychic phenomena. On the other hand, this makes it possible for us to integrate with our own inner experiences the phenomena observed by other individuals and, whenever the observations bear upon similar phenomena, to control our own observations by means of theirs, just as an experiment on light and heat made by an American scientist is confirmed or rejected by an experiment which another scientist makes in



Europe on specifically identical phenomena. Even the language which two individuals, who discuss together their own inner life, have inherited in common from their peoples or from former scientists can facilitate their knowledge of psychic phenomena, just as it otherwise facilitates knowledge of external phenomena, by bringing forth in a sort of preliminary classification the different and main classes of phenomena clearly coordinated according to the standpoint of their specific affinities.

Finally, the preceding statements show the value which the study of autobiographies has for the psychologist, provided that we give due recognition to the fact that the observer or the informant is more or less biased in his writings. Feuchtersleben states in this connection that in a biography we should pay attention not so much to what is reported, as to what is involuntarily revealed in it.

Even without verbal communication psychic states can also manifest themselves externally in a less perfect manner, it is true, but quite often with sufficient clearness.

To this category above all belong human achievements and voluntary acts. The conclusions that we can draw from them concerning the inner states from which they derive are often much more certain than those based on verbal statements. The old saying, "verba docent, exempla trahunt," would not be a truth which can be verified daily if practical conduct were not generally considered as a trustworthy expression of inner convictions.

Besides these physical voluntary modifications, there are involuntary modifications which accompany or follow naturally certain psychic states.

Fright makes us turn pale, fear induces trembling, the blush of shame reaches the cheeks. Even before scientists devoted themselves to the scientific study of emotions, as Darwin did recently, this relation had already been known to a great extent through simple habit and experience, so that the observed physical phenomena served as signs of the invisible psychic phenomena. It is evident that these signs are not the things which they signify. It is not possible, therefore, as many people quite naïvely have attempted to make us believe, that detached from inner subjective observation this external and, as it was pretentiously called, "objective" observation of psychic states could become a source of psychological knowledge. Together with subjective observation, however, it will greatly contribute to enrich and supplement our own inner experiences by means of what others have experienced in themselves, and thus to correct the illusions of which we may have been victims.

5. It will be especially worthwhile if by means of one or the other of the above mentioned methods we can gain some knowledge of the states of a psychic life which is simpler than ours, either because it is less developed or because certain types of phenomena are entirely absent from it. The first instance is found mainly among infants, and the more so the younger they are. For this reason numerous observations and experiments have frequently been made on the new-born. In addition, the study of adults in primitive societies is valuable in this respect. If on the one hand such a study appears to be of lesser importance, on the other it offers the advantage of replacing signs which are more or less subject to misunderstanding with the greater

precision of verbal expression and verbal communication. It is for this reason that even Locke made use of this technique and that in the interest of psychology scientists have recently turned their attention more and more to the phenomena which are characteristic of primitive people.

An example of the second type of simpler psychic life is that of the congenitally blind who lacks the knowledge of color, as well as all other knowledge which can be acquired only by means of the sense of sight. Their case is of two-fold interest: first, in order to see to what extent cognitive life can develop without the assistance of the sense of sight, and especially to see if the congenitally blind has the same knowledge of spatial relations as we do; in the second place, if a successful operation later on makes it possible for them to see, in order to investigate the nature of their first sensory impressions.

To this category also belong observations which are made on animals for psychological purposes. Not only the psychic life of lower animals which are deprived of some sense organs, but also that of higher animals, appears extremely simple and limited when compared with man's psychic life. This could be due to the fact that either they possess to an incomparably lesser degree the same faculties as ours, or lack altogether certain classes of psychic phenomena. The solution of this question is obviously of the utmost importance. If the second conception, adhered to in the past by Aristotle and Locke and still professed today by many scientists, were found to be true, we would be in the presence of the most remarkable example of the

isolated action of certain psychic forces. Moreover, any theory which does not depart so much from sound common sense as to deny that animals are endowed with psychic life will attribute the greatest value to the investigation and the comparison of their psychic properties with those of man.

6. The attentive study of morbid psychic states is important in another respect. Frequently theoretical interests, and even oftener practical ones, have led scientists to make observations on idiots and insane people which have provided psychology with valuable data. Like the phenomena belonging to this order, the value of these observations for psychology varies very widely. Sometimes mental illness manifests itself under the influence of a constant or, according to the common expression, "fixed" idea which deeply affects psychic life. Prescinding entirely from the causes of this phenomenon, we can say that the laws of association of complex ideas find in it valuable illustrations. At other times certain functions appear to be hypertrophied or atrophied, and insofar as other functions connected with them are intensified or weakened, the laws governing their connection will thereby be clarified. The phenomena of the idiot and the insane person and other morbid phenomena give us extremely valuable information concerning the way in which psychic phenomena and the health of our body are interrelated, when, as it is almost always the case, these abnormal psychic phenomena are associated with observable organic abnormalities. It would be a mistake, however, to pay equal or greater attention to these morbid states than to those of normal psychic life. In the first place, we must establish the relations of

coexistence and succession which govern normal physiological states. Only when these laws, up to a certain point at least, have been based on sufficient observations and possess sufficient generality will the study of these anomalies prove useful. On the one hand, we shall then be in a position to appraise more accurately these anomalies, since the modified associations and the new complications which result from radical changes in vegetative functions show the influence of the same laws which govern normal life. On the other hand, the understanding of these anomalies will in turn enable us to broaden and deepen our understanding of these laws and of the usual course of phenomena. It is precisely in regard to these phenomena which arouse our curiosity most that it will take the longest time for us to fulfill our desire to attain these goals. The explanation of these phenomena can be achieved only gradually. Until psychology and physiology have not reached a more advanced stage of development, investigations along these lines will be just as idle and sterile as have been at one time the efforts of zoologists in the field of teratology.

7. In general, since our primary concern is the knowledge of normal phenomena, it will be more instructive for us to observe first of all the extraordinary phenomena which are found in physically healthy persons. Valuable clues for psychological investigations can be found in biographies of men who have distinguished themselves as artists, scientists or for outstanding character, as well as in those of notorious criminals, and in studies of an eminent work of art, of a remarkable invention, of a great

deed or crime, at least to the extent that it is possible to gain insight into their motive and preparatory conditions. Thus, in its portrayal of great personalities and in its description of epoch-making events which generally revolve around some famous man who embodied the spirit of an epoch or a social movement, history offers many facts which are important to psychologists. The clear perspective in which these facts are presented is extremely useful to psychological observation.

In addition, the course of world history considered in and for itself, the succession of phenomena which are exhibited in the masses, social progress and retrogression, the rise and fall of nations, often can render great services to those who want to investigate the general laws of man's psychic nature. In the masses the main properties of psychic life often stand out more clearly, while secondary peculiarities balance each other and disappear. Even Plato hoped to find depicted with broad strokes in the state and in society the characteristics which the soul of the individual possesses in miniature. He believed that his tripartite division of the soul corresponded to the three essential classes in the state: the class of laborers, that of warriors and that of rulers. Moreover, he found a further confirmation of this doctrine in the comparison of the fundamental traits of different ethnic groups, such as Egyptians and Phoenicians, courageous Nordic barbarians and culture-loving Greeks. Perhaps another thinker would expect to find some manifestation of different fundamental tendencies of our higher psychic life in the outstanding phenomena of art, science and religion. It

has often been stated, and certainly not without truth, that the history of the development of mankind exhibits on a large scale what takes place in an analogous manner, but in miniature, in the history of the development of the individual. The observation of psychic phenomena in human society undoubtedly sheds light upon the psychic phenomena of the individual. The opposite, however, is even more true. Indeed, in general it is a more natural procedure to try to understand society and its development on the basis of what has been found in the individual than trying to throw light on the problems of individual psychology by means of the observation of society.

What we have said is sufficient to show from which areas the psychologist gathers the experiences upon which he bases his investigation of psychic laws. We found as his primary source inner perception which has the inherent disadvantage that it can never become observation. To inner perception we added the inspection of our past psychic experiences in memory which makes possible attention and, as it were, observation. The field of experience which up to this point is limited to our own psychic phenomena is thereby extended, since the externalizations of the psychic life of other persons allows us to gain some knowledge of psychic phenomena which we do not experience directly. It is evident that the facts which are important for psychology are thus increased a thousandfold. This last type of knowledge, however, presupposes observation through memory, just as the latter presupposes the inner perception of psychic phenomena present in consciousness. Inner perception, therefore, constitutes the last and indispensable preliminary

condition of the other two types of knowledge. Consequently, and on this point traditional psychology is right in opposition to Comte, inner perception constitutes the very foundation upon which the science of psychology is erected.



## CHAPTER III

### INVESTIGATIONS ON THE METHOD OF PSYCHOLOGY (Cont'd.)

#### INDUCTION OF THE FUNDAMENTAL PSYCHOLOGICAL LAWS

1. Psychologists must first of all devote themselves to ascertain those characteristics which are common to all psychic phenomena, assuming naturally that there are such characteristics, since this is denied by many scientists. Bacon asserted that it was always necessary to investigate first the intermediary laws, and then, through a progressive ascent, the highest ones. Actually, this assertion has not been verified in the history of the natural sciences, and therefore, cannot have any value for psychologists. The only aspect of truth in such an assertion is that in the induction of the most general laws we naturally find the common characteristics first in individuals, then in specific groups, before we can ascertain them in all their extent.

2. The analysis of the general characteristics of psychic phenomena enables us to discover the principle of their classification and to establish at the same time their fundamental classes on the basis of their natural kinship. As long as this is not accomplished, it will be impossible to make further progress in the investigation of psychic laws, inasmuch as for the most part these laws apply only to certain types of phenomena. What would be the outcome of the researches of the physicist experimenting upon heat, light and sound, if these phenomena were not divided into natural groups by an otherwise clear-cut classification? By the same token, with-

out having previously distinguished the different fundamental classes of psychic phenomena, psychologists would endeavor in vain to establish the laws of their succession. We have already observed that everyday language, through general names which it assigns to psychic phenomena, prepares the way for psychological investigations. Naturally this language is not entirely reliable, so that it would lead into error those who depend too much upon it. On the other hand, however, it would facilitate the discovery of truth for those who utilize its definitions with caution. As we have already mentioned, there is conclusive evidence that any fundamental class of psychic phenomena which is found in other men is also found in the domain of our own individual life. The establishment of a complete list of psychic phenomena is thereby made possible. It is also easy to recognize that in spite of the great variety of phenomena the number of their fundamental classes is very limited. This facilitates essentially our investigation and excludes all apprehension of having overlooked completely a phenomenon which might belong to another fundamental class distinct from all those previously considered. As mentioned above, the whole difficulty arises from the fact that inner perception can never become inner observation. The fact that even today psychologists have not reached an agreement concerning the problem of the fundamental classes of psychic phenomena indicates how great this obstacle is in certain situations. Consequently, besides the number of such classes we must also establish their natural order.

3. Among the first and generally important investigations we must include the investigation of the simplest psychic elements from which more complex phenomena originate. We would solve this question without any delay if we could remember more clearly the beginnings of our psychic life. Unfortunately, we do not find ourselves in this favorable situation. Moreover, the observation of the new born offers us some, but in no way a sufficient substitute. The data gathered from this observation are ambiguous, and even if our conclusions were more certain, there still would remain the objection that we would not be dealing here with the first beginnings of psychic life, since these beginnings reach back to prenatal life. We are forced, therefore, into an analysis which has been compared to that of the chemist. The task is in no way easy. In fact, it is not sufficient to distinguish the different aspects which a phenomenon offers. Such a procedure would be equivalent to that of a chemist who would try to consider the color and taste of cinnabar as its constituent elements: a ridiculous mistake, even though many psychologists have actually fallen victims to it, a thing for which Locke is not entirely blameless. Just as the chemist separates the elements of a compound, it seems that the psychologist should also try to separate elementary phenomena from complex ones. If only such an analysis could become as perfect and certain as in the chemical field! However, since psychic life never reverts from a later stage to a previous one, it seems especially impossible for us to relive an elementary phenomenon in the purity and simplicity in which we originally experienced

it.<sup>1</sup> Under these circumstances, if the juxtaposition of images were a true synthesis, if there were, as in the case of chemical compounds, a transformation into altogether different kinds of phenomena, and if this were a general process, the difficulty would obviously become unsurmountable. Fortunately no psychologist carries his assertions so far, and those who would like to do so could be refuted easily. In general, up to the present time there has been widespread opposition to the acceptance of the theory of a psychic chemistry of images.

The investigation of the first psychic elements bears chiefly upon sensations, since sensations are undoubtedly a source of other psychic phenomena, and since many scientists assert that they are the only source of all phenomena. Sensations are effects of physical influences. Their origin also is a psycho-physical process. It is for this reason that physiology, especially the physiology of sense organs, is here of essential help to psychology. Nevertheless, the purely psychological means which are available for the solution of the problem under discussion are often not utilized sufficiently. Without these means we would not be able to assign a separate origin to phenomena which encompass one another. In this context, as we have already remarked, the observation of congenitally blind persons who

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<sup>1</sup>Even Kant complains that psychology "as a systematic science of analysis" can never approach chemistry because in it the manifold elements of inner observation are separated from one another only through a mere abstract operation, but cannot be kept isolated and recombined at will. (Metaph. Anfangsgr. d. Naturw., Preface).

underwent a successful operation also becomes important, not only for the sense of sight, but also for all the other senses, because the investigation of the first psychic elements cannot be conducted as completely in the field of any of these senses as it can in the field of vision, which is our highest sense.

4. The fundamental and most general laws of the succession of psychic phenomena, whether these laws are valid for all phenomena or only for those of a fundamental class, must be established directly according to the general laws of induction. As A. Bain<sup>1</sup> has rightly pointed out, these laws are not fundamental and last in the sense in which we characterize as such, for example, the law of gravity and the law of inertia. This is due to the fact that the psychic phenomena to which these laws apply depend too much upon a multiplicity of physiological conditions of which we have very incomplete knowledge. They are rigorously derived empirical laws which, in order to explain psychic phenomena, would require an analysis of the corresponding physiological states.

This statement is not to be understood as though I believed that one should undertake to deduce the fundamental laws of psychic succession from the laws of physiological phenomena, or perhaps in a broader sense, chemical, and in a narrower sense, physical phenomena. This would be folly. There are limits which cannot be exceeded in our attempt to explain nature; and,

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<sup>1</sup>Logic, II (Induction), 284.

as J. S. Mill quite rightly states, we run against one of these limits when we deal with the problem of transition from the physical domain to that of psychic phenomena.<sup>1</sup> Even if the physicist had reduced to molecular vibrations and mechanical processes all the causes which produce our sensations of colors, tones, odors, etc., we would still have to assume some particular fundamental laws for the sensation of color, indeed for the sensation of each particular species of color, as well as for the sensations of sounds and odors. Any attempt to further reduce the number of such laws would be hopeless and unreasonable. Consequently, what I deem desirable and necessary for a more complete explanation of psychic laws is not their deduction from physical laws. In simple cases the explanation which I have in mind would involve merely an enumeration of the proximate and immediate antecedent or concomitant physiological conditions, and a more accurate delimitation of their nature, excluding any element which is not immediately connected with them. In those cases in which we must investigate the influence of previous psychic phenomena on a subsequent phenomenon, perhaps after a rather long lapse of time has interrupted all psychic activity, it would be necessary to take into account the purely physiological processes which have intervened in the meantime, as far as these processes influence the relationship between the previous psychic cause and its subsequent psychic effect.

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<sup>1</sup> System of Logic, III, ch. 14.

If we could achieve this goal, we would be in possession of fundamental psychic laws which undoubtedly would be less clear and less distinct than, but which would possess the same rigorousness and accuracy as the axioms of mathematics - fundamental laws which, in the full sense of the word, could be considered as principles. In a somewhat changed form, however, our present fundamental laws would be incorporated into these principles as derived laws. Thus, psychology in its greatest part, if not in its entirety, would acquire a bipartite psycho-physical character.

5. The undeniable dependence of psychic processes upon physiological processes has repeatedly led psychologists to base psychology directly upon physiology. We have seen how Comte wanted to utilize phrenology as an instrument of psychological investigation, even though in a form which did not show any close resemblance to that developed by Gall. In Germany, in his interesting Psychological Analyses based upon Physiology, Herwicz has recently made a similar attempt to give psychology a new foundation. The same author, in the Zeitschrift fur Philosophie and Philosophische Kritik, had already discussed at greater length the question of the method which he considered as the only valid one in the psychological field.

In opposition to Comte, Herwicz does not reject self-consciousness. On the contrary, my reproach to him is that he overemphasizes it to the point of considering it "scientific self-observation," and merely acknowledges with the other psychologists who defend the theory of self-observation that "a good psychological observation is not within the reach of

everyone and above all is not always attainable."<sup>1</sup> Strictly speaking, he does not base his doctrine upon self-consciousness. He wishes to utilize it only as a preparatory step, believing that it would simply yield a preliminary and rough idea of the totality of psychic activity.<sup>2</sup> All further knowledge, in his opinion, is derived from physiology. From the fact that this science "offers us the special conditions of the presence of the soul in the organism, as well as of their mutual relationship," he draws "the methodological conviction that the organization of the soul—in its earliest and most general traits—must...correspond to the organization of the body."<sup>3</sup> According to him, we can find an answer to the question "of the most general organization and structure of psychic life" only "if we study beforehand the organization and structure of bodily life." We must, therefore, begin with a general analysis of the physiology of the body, and then determine whether such an analysis allows us to encompass with certitude the total organization of the soul. His assurance that the enumeration of the different psychic processes is complete is furnished by "the physio-

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<sup>1</sup>"Methodologie der Seelenlehre," Zeitschrift für Philosophie und Philosophische Kritik, LX, 1872, 170. It is difficult to understand how he wants to reconcile this doctrine with the statement that "we are incapable of having at the same time more than one idea." (Psych. Anal., I, 262). Indeed, later on (Ibid., 326) he himself seems to doubt seriously its validity.

<sup>2</sup>"Methodologie der Seelenlehre," 187. Cf. Psych. Anal., I, 155 ff.

<sup>3</sup>"Methodologie der Seelenlehre," 189.



logical premise, if this premise is in any way true, that no psychic process can take place or come into existence without a material substrate."<sup>1</sup> Similarly, as he expresses himself elsewhere, in all subsequent investigations physiology "is not simply a useful accessory, but the very methodological vehicle of research."<sup>2</sup> In particular, through the physiological comparison of all vital processes he hopes "to find the guiding principle which will enable us to discover the simplest psychic elements from which psychic life would genetically develop."<sup>3</sup>

These are enticing perspectives, especially at a time when natural sciences enjoy a full measure of confidence, while philosophy hardly enjoys any. Psychological perception, which is considered to be mainly a philosophical issue, and everything that is derived from it can only have the function of an introductory investigation. All subsequent investigations are carried on by the natural scientist. Using physiological methods, this scientist establishes the number of the classes of psychic phenomena and their relative character. Similarly, he determines which is the primitive psychic element, discovers the laws of complexity and deduces the fundamental psychic phenomena.

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<sup>1</sup>Ibid., 190.

<sup>2</sup>Psych. Anal., I, 175.

<sup>3</sup>Methodologie der Seelenlehre, " 189.

We must not let ourselves be deceived by what may at first sight appear a desirable goal. It is actually easy to show that Horwicz, in much the same way as Comte, has exaggerated the services which physiology can render to psychology. He bases his conviction on the relationship of psychology to physiology. Since physiology deals with the immediately higher concept, namely the concept of life, its relationship with psychology must be similar to that of "mathematics to physics, and astronomy to geography."<sup>1</sup> But no matter how useful and even indispensable mathematics may be to the physicist, anyone is bound to see that the physicist would not make any progress in his researches, if he did depend entirely upon it and made it the vehicle of such researches, as Horwicz expects the psychologist to do with regard to physiology. To quote only one example: what could mathematics teach us concerning the number of the fundamental classes of the phenomena with which the physicist is concerned?

Perhaps Horwicz will answer that the comparison of the relationship between physiology and psychology with the relationship between mathematics and physics, like any comparison, is not entirely satisfactory. Physiology would have a particularly intimate connection with the psychological field, since, as he himself has pointed out, the phenomena which are investigated by it are the conditions for the occurrence of psychic phenomena and stand in the closest mutual relationship with them. Even granting that this is not so in the case of the relationship between mathematics and physics, we

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<sup>1</sup>Ibid., 188.

can nevertheless refer with a much greater degree of certainty to the relationship between inorganic chemistry and physics on the one hand, and physiology on the other. The inorganic realm contains the conditions of organisms whose existence depends upon a constant and most intimate mutual relationship with it. Nevertheless, no matter how great may be the help which inorganic chemistry and physics bestow upon the physiologist, could the latter ever expect from them a satisfactory explanation of the classification of organisms? On the contrary, will he not have to derive both the totality of his classification and the functions of the different parts from the physiological phenomena themselves? There cannot be any doubt that this is the case.

Perhaps even this comparison will be criticized as inadequate. Inorganic phenomena, it will be said, are undoubtedly in a constant and mutual relationship with those of the organism, but they are not their "material substrate," the way physiological phenomena are for psychic phenomena. Even according to Horwies himself, it is quite difficult to explain the peculiarity of this relationship and it would probably be even more difficult to prove that such a peculiarity has universal value for the totality of psychic phenomena. The only point which is immediately clear is that the relationship between psychic phenomena and concomitant physiological phenomena are actually very different from those that exist between inorganic phenomena with which the chemist deals and the organisms which constitute the object of study of the physicist. On the other hand, a more careful com-

parison and an analysis of all pertinent facts seem more likely to lead us with certainty to the conclusion that chemical phenomena offer much more information about physiological phenomena than the latter do concerning psychic phenomena. In fact, compared with chemical and physical processes, physiological processes manifest only a greater complexity. More and more, since Lotze, scientists have abandoned the concept of a vital force which is of a nobler nature. If we consider it in all its extension, the concept of chemical phenomena applies equally to inorganic changes and to life in the physiological sense. We can hardly say the same thing of the concept of life, when we employ it in the physiological and psychological field. On the contrary, if we turn our attention from the outside world inwardly, we find ourselves, as it were, in a new realm. The phenomena are absolutely heterogeneous, and the analogies themselves either become entirely inadequate or assume a very vague and artificial character.<sup>1</sup> It was for this very reason that in our previous discussion of the fundamental division of the field of empirical sciences we have distinguished the psychological and physical sciences as main branches.

The unfortunate consequence of Horwicz's efforts, foreseeable on the basis of these considerations, has thus actually become a fact. Horwicz had hoped to establish a psychology which had deeper and firmer foundations,

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<sup>1</sup>Mikrokosmos, I, 160 f.

but he relies upon superficial analogies and thus gives a mere system of unsupported hypotheses. An example among many are the two "important analogies of psychic life with corporeal life" which he finds in the "Ariadne's thread of the nervous system."<sup>1</sup> The first analogy is that between digestion in the ordinary sense of the word--which, through a progressive transformation and a gradual refinement, changes the raw materials received from the outside first into arterial blood, and then into muscles, tendons, bones, nerves, etc.,--and digestion in the figurative sense of the word in the field of psychic life. According to him, the process of assimilation is identical in both cases. "The influences of things from the external environment act as stimuli on the perceptive organs of the sensory nerves. From them as the raw materials the soul (as we choose to use this term in this instance) derives its nourishment in the form of sensations. When a mass of completely foreign impressions impinges upon us all of a sudden, we rightly say that first of all we must digest them. But the soul digests by transforming the raw materials which are brought to it through the nerves into sensations and psychic products of an increasingly higher order such as images, concepts, judgments, reasonings, emotional tendencies, resolutions, plans, axioms, etc." The second analogy, according to Herwicz, is that between the opposition of sensory and motor nerve activity, which dominates the whole nervous system, while

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<sup>1</sup> Psych. Anal., I, 148 ff.

the so-called central organ consists only in interpolated parts between this polarly opposed stream, and the opposition of psychic processes which in different forms manifests itself "in a polarity which is just as much antagonistic, deep and on the whole just as uncompromising." It is the opposition between the theoretical and the practical orientation which, as Horwicz believes, dominates the whole field of psychic life. Relying on these two analogies, he arrives on the basis of the physiological method at a fundamental division of psychic phenomena which, according to him, coincides essentially with "the truly and absolutely correct matrix of psychic life, as formulated by Wolf." Psychic phenomena are divided into inferior and superior, as well as into cognitive and appetitive phenomena, and both divisions overlap each other. Thus, between cognitive and appetitive phenomena there exist intermediary ones, just as between inferior and superior phenomena. To this category belongs the class of sentiments, which modern psychologists are accustomed to distinguish as a separate class. It is to this class that the interpolated parts of the central organ refer. Thus, on the basis of physiological considerations, we closely approximate the usual fundamental divisions of psychic phenomena. However, we do so by means of a mere exact procedure which guarantees and explains what it teaches.

It is actually difficult to understand how, in spite of all his prejudices in favor of a type of investigation based upon physical observation, a man endowed with good judgment like Horwicz was not able to realize that

these crude analogies (one of which is no more related to the "nervous substrate of psychic life" than it is to other constituent parts of the organism) could in no way confirm, and still less replace, the classifications of psychic phenomena discovered by means of psychological observation. If these psychic classifications were not certain, the hypothesis that the sensory nerves constitute the substrate of knowledge and the motor nerves the substrate of appetency would be even more uncertain. Other physiologists have localized not only these phenomena in nerve centers, but also thought and will. In fact, as is the case for many different kinds of physical properties, why could we not assume also that many different kinds of psychic properties correspond to one and the same matter? Such a method, therefore, can in no way give us any information concerning the number of psychic faculties.<sup>1</sup>

We have seen that up to now, while striving to establish and secure his theory, Horwicz has given us only a whole series of bold hypotheses. And we shall find something similar practically at every future step of his inves-

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<sup>1</sup>Horwicz himself says: we must "admit beyond question that all psychic action is connected with the central organs of the nervous system. We were not able to find it likely that the different properties, forces, faculties (or similar terms) of the soul are separated, as the phrenologists claim, into distinct parts of the nervous mass. Furthermore, we were forced to assume that the different organs and groups and systems of organs perform essentially the same functions, that to the different central organs or to their parts there do not correspond different psychic forces" (*Psych. Anal.*, I, 233). But then, what value shall we attribute to the analogy which he has proposed?

tigations. Consequently, since with every new hypothesis the probability diminishes in geometrical progression, we will long have acquired the moral conviction that we have abandoned the road of truth by the time that, always under the undaunted leadership of the author, we reach the statement "that the intimate and necessary connection of sensation and movement constitute the simple element from which are constructed all psychic processes simply through repetition or complication."

Horwicz is entirely aware that Newton's motto "hypotheses non fingo" could not be applied to him as a physiological analyst of psychic phenomena. At times, he even seems to be fully aware of the impossibility of his undertaking. Thus, in one instance (p. 156) he stated that physiology "cannot penetrate into the fine detail of psychic processes" (what a clear light it sheds upon the fundamental classifications, we have already seen.) Furthermore (p. 175) he recognizes that "we still lack very essential connecting links" for the explanatory reduction of a psychic phenomenon to its physiological foundation. Indeed, he assigns (p. 183) physiology the "great task" to deduce the whole gamut of sensations and movements from one single state of nervous excitation, but at the same time admits that we are "still far removed" from this goal. In addition, he asserts (p. 224) that it is "extremely dangerous to infer from physiological experiences the existence or nonexistence of consciousness." He acknowledges (p. 235) that "the physiological conditions of sleep are unknown," which implies that on the basis of physiology we would not have the least idea of the existence of such a



remarkable phenomenon. He himself grants (p. 250) that all that physiology could offer in this connection are "as yet only vain wishes and phantasies." Finally, very open and comprehensive is the confession he makes (p. 288) in connection with his discussion of the phenomena of memory: "we call to mind once more that in the present state of science we can only deal with hypotheses and theoretical possibilities. In a subject matter in which the knife and the needle so completely fail, it is self-evident that we cannot arrive at establishing the true nature of things. But this is precisely what we do not know." According to his opinion, on the basis of physiology, we can demonstrate the falsity of a certain hypotheses, but in no way can determine what is truth. There is ample room for many hypotheses. If this is the case, in many instances we may indeed be thankful to physiology for forewarning us, but undoubtedly we cannot take it as a guide in the proper sense of the word, as Horwicz proposes to do. Physiology cannot even give us an explanation of psychic facts which are already well established, or such an explanation will resemble the explanation which Horwicz gives (p. 325 ff.) of the unity of consciousness. In this connection, Horwicz asserts again and in all modesty that the facts lie "still too much in the dark." The only thing that we can do for the time being is "to indicate how from the physiological standpoint we could conceive that which in this respect at least would be physiologically possible." "Is there a single judicious man," he exclaims, "who devotes himself to psychological researches with the expectation of seeing solved through his analysis the last riddle of the psycho-

physical connection?" He asserts that he simply wants to point out "how fortuitous must be the nature of the theory which makes the phenomena of recall in some way conceivable and comprehensible also from the physiological standpoint"; that he attempts only "to imagine, to get an idea of the underlying physiological processes." Many people, however, might doubt that he really has achieved even this much.

6. Maudsley stressed, just as much as Horwicz, if not more so, the necessity of basing psychology upon physiology. Frequently, as we have already mentioned above, he seems to agree with Comte in denying completely self-consciousness; when he recognizes it, he emphasizes vigorously its total insufficiency.

In his critique of S. Mill's work on Hamilton, which he published in the Journal of Mental Science in 1866, Maudsley strongly reproaches this thinker for not taking into account the numerous positive contributions that the physiological method has already made to psychology, and for believing that by means of the old method based on inner perception he could do what Plato, Descartes, Locke, Berkley and a host of others have not been able to do. "We have the slightest faith," he says, "that ten thousand Mills will, following the same method, do what these great men have not done; but there can be no question that had Mr. Mill chosen to avail himself of the new material and the new method which his great predecessors had not in their day, he would have done what no other living man could have done."

In his Physiology and Pathology of the Mind he attempts to show very painstakingly the impossibility of achieving any appreciable result by means

of the old method. To be sure, his conception of such a method is in no way adequate, since he believes that ancient psychologists paid attention only to their own individual phenomena and did not take into account all the other phenomena. On account of this, he accuses them of trying to illuminate the universe with a rush light.<sup>1</sup> The simple fact that each of them utilized the investigations of the others should have made him aware of his error. Furthermore, upon closer scrutiny, he would have found that James Mill and before him Locke and, two thousand years earlier, Aristotle, had already taken into consideration psychologically noteworthy phenomena observed in other men as well as in criminals. But this is unimportant. "Physiology or psychology": such is the alternative which Maudsley himself formulates explicitly, and which he decided without reservation in favor of physiology.<sup>2</sup> Any attempt to develop a psychology without basing it upon physiology appears to him doomed to failure from its very beginning.

Since Maudsley, in his attacks against Mill, speaks of the fruitful results which the physiological method had already yielded for psychology, and since he declares that it is only because Mill did not utilize them that he failed to attain successes unknown to any other human being, upon opening his book, I was entitled to expect abundant information concerning

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<sup>1</sup>Phys. and Path. of the Mind, trans. Bohm, p. 23.

<sup>2</sup>Ibid., 22.

psychological problems. But I soon discovered that while on the one hand he reiterated his attacks upon the old method, on the other he did not say anything concerning the conquests of the new one. Indeed, when he considers the task to which he proposes to apply the physiological method, Maudsley loses courage to the point of declaring that such a task surpasses his forces, if not those of all our generation. He frankly recognizes (p. 7) "that in the present state of physiological sciences it is quite impossible to ascertain by observation and experiment the nature of those organic processes which are the bodily conditions of mental phenomena." And he adds (p. 26): "all that physiology can do at the present time is to overthrow the data of a false psychology." He admits that our ignorance concerning the physiological method is so great that quite easily it raises the doubt of whether physiology will ever be in a position to lay the foundations of a mental science on a firm basis. To console us, he recalls that in other fields of science future centuries have achieved what previous ones had considered impossible. But he adds: "there are really no grounds for expecting a positive science of mind at the present time."

From the point of view of the physiological method this appears to be an indisputable truth which Horwicz himself at times is not far from recognizing openly. If we compare his bolder and more exuberant views with the more prudent and more modest psychological analyses which we come across in the course of Maudsley's work, the contradiction between their theories on essential points can hardly revive anew our forlorn expectations. Thus we

see that the question at hand, at least for the time being, is not so much to choose between "the psychological or physiological method," but rather to know "whether or not this science exists." Consequently, it will be absolutely necessary to clarify such a question beyond any doubt in order not to waste our energies on a task that is impossible from its very inception.

We have seen how Maudsley has settled the question. Let us now see the reasons for his conclusion. In fact, in his Physiology of the Mind he has exposed much more explicitly than Herwig the arguments for the necessity to base psychology methodically upon physiology.

In substance these arguments are the following. To begin with, according to Maudsley, psychic life is dependent upon material conditions which vary in different individuals and undergo changes in the same individual, and whose properties determine the properties of psychic life. Physiology alone can give us an account of them; inner consciousness obviously does not reveal anything in this connection.<sup>1</sup>

Furthermore, the brain whose function, according to Maudsley, constitutes the whole psychic life, has also a vegetative life. It is subject to an organic process of repair which in the normal state usually takes place without exciting consciousness and causing a consequent confusion of thought.

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<sup>1</sup>Ibid., 12.

Thus, for example, the presence of alcohol or some other such harmful agent in the blood will excite into activity ideas which lie out of the usual path of association. How can we throw light upon these phenomena except through a physiological method? How else, except through such a method, can we explain normal psychic activity which certainly is no less conditioned by the organic life of the brain? This organic life consists of the assimilation of suitable material from the blood by nerve cells. It is this process which restores the static equilibrium after each expenditure of energy, including the expenditure of neural energy produced by mental activity. "Thus static functional potentiality follows through the agency of nutritive attraction upon the waste of active idea through functional repulsion, and thereby the elements of the nerve cell or circuit grow to the form in which it energizes." Inner consciousness does not contribute anything to our knowledge of all this.<sup>1</sup>

Another argument, according to Maudsley, is that the existence of mind does not necessarily involve its constant activity. Descartes, of course, maintained that the mind always thinks and that non-thinking would be non-existence. However, the opposite is true. That which has existed with any completeness in consciousness leaves behind it after its disappearance from it a trace, a potential or latent idea. Thus the mind is far from being

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<sup>1</sup>Ibid., 20 f.

always active; in fact, at each moment the greater part of psychic life is inactive. "Mental power exists in statical equilibrium as well as in manifested energy... No man can call to mind at any moment the thousandth part of his knowledge. How utterly helpless is consciousness to give an account of the statical condition of mind! But as statical mind is in reality the statical condition of the nervous substrata which minister to its manifestations, it is plain that, if we ever are to know anything of mental organization, it is to the progress of physiology that we must look for information."<sup>1</sup>

Moreover, not only does mental organization not necessarily involve mental function, but mental function does not necessarily imply consciousness. Maudsley appeals here to Leibnis and to his own countryman Sir W. Hamilton who, following Leibnis's example, also defends the doctrine of unconscious images. It would also be possible, Maudsley believes, to show that often, and even habitually, the organ of the mind unconsciously, i.e., in a state of complete inattention, appropriates through the senses the influences of its surroundings. Although the impression does not produce then a conscious image, nevertheless it is retained and permanently affects our psychic life.<sup>2</sup> In the same way the brain as the central organ responds to

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<sup>1</sup>Ibid., 15 f.

<sup>2</sup>Ibid., 13 f.

different internal stimuli which it receives unconsciously from other organs, and in its turn reacts upon them. The influence of the sexual organs upon the mind bears witness to this operation.<sup>1</sup> In addition, the brain elaborates material unconsciously and calls latent residua again into activity without consciousness. "In composition," he states, "the writer's consciousness is engaged chiefly with his pen and with the sentences which he is forming, while the results of the brain's unconscious working, matured by an insensible gestation, emerge from unknown depths into consciousness, and are by its help embodied in appropriate words."<sup>2</sup> He quotes Goethe's statement: "I have never thought of thinking," which brings him to the supposition that man in his highest development has reached an unconsciousness of the ego similar to that of the child and carries forward his organic evolution with a childlike unconsciousness.<sup>3</sup> Thus he arrives at the assertion that not only mental organization does not necessarily involve mental function and mental function does not necessarily imply consciousness, but "that the most important part of mental action, the essential process on which thinking depends, is unconscious mental, or, if one prefers, cerebral activity." He repeats, then, the question: "How can self-consciousness suffice to furnish the facts of a true mental science?"<sup>4</sup>

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<sup>1</sup>Ibid., 19.

<sup>2</sup>Ibid., 16.

<sup>3</sup>Ibid., 32.

<sup>4</sup>Ibid., 19 f.



In the last analysis, Maudsley, if I understand him correctly, introduces the principle of hereditary transmission in the species.<sup>1</sup> Just as the residua of previous psychic life subsist in the individual, so they are also preserved in the species. Between the gifted man of genius and the common herd of mortals there is the same difference as between the butterfly which flies and feeds on honey, and the caterpillar which crawls and gorges on leaves. But the crawling of the caterpillar is nevertheless the preliminary condition for the flight of the butterfly; similarly, the conscientious labor of the average man furnishes the preliminary conditions for the unconscious creations of the genius. It is clear that this influence of heredity again escapes the domain of consciousness.

These are in essence the reasons which Maudsley assumes as proofs of the inadequacy of a purely psychological method, and of the corresponding adequacy, by contrast of a method which considers psychic phenomena from the physiological standpoint.

That this is true, up to a certain point, I would have granted without reservation even before becoming familiar with his arguments. Is it true, however, in the sense and to the degree to which he believes? This is what must be investigated. To this extent we have to consider more closely his reasons.

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<sup>1</sup> Ibid., 32 ff. Cf. 17 f.

First of all, let us point out that a good portion of the facts upon which Maudsley relies to demonstrate the inadequacy of the psychological, and the necessity of the physiological method were arrived at on the basis of psychological considerations; at any rate, the other facts do not presuppose a more thoroughgoing physiological analysis, since they were already known before scientists had the least idea of brain physiology. The psychological method led philosophers to the assumptions of innate knowledge and of a genius quality which can grasp easily and through immediate intuition what others understand only with difficulty after long explanations. Likewise, it was psychic phenomena which first led Leibniz to admit the existence of unconscious ideas, and subsequently influenced Hamilton and others to rally to his doctrine. Moreover, it was on the basis of inner experiences that even in antiquity Aristotle spoke of these unconscious habits and dispositions which Maudsley characterizes as statical condition of psychic life. On the whole, however, the influence of vegetative processes and the psychic disturbance following the consumption of intoxicating beverages, as well as the connection of psychic with physical characteristics, are facts, whose knowledge goes back to the dim past. The psychological method, therefore, is not really indebted for this recognition of inadequacy to the physiological method, but instead essentially to itself.

Secondly, it is necessary to notice that certain points upon which Maudsley bases his attacks are in no way as definitive and complete as he seems to believe. This is true, for example, of heredity, provided that

Maudsley actually asserts the hereditary transmission of knowledge. We will return to this question when we discuss the problem of innate ideas. On the contrary, if Maudsley did assert only the transmission of particular dispositions which determine great psychological differences between different individuals, the difficulty that would arise from this conception for psychological investigation would already be included among those which we have pointed out above, and consequently would be simultaneously resolved with them.

Not even the existence of unconscious images can be asserted as an incontestable fact. Most psychologists reject it. For my part, not only do I think that the reasons which are advanced for its assumption do not appear conclusive, but I even hope to prove conclusively later on the truth of the opposite hypothesis.<sup>1</sup> Maudsley refers to facts such as the well-known story "which Coleridge quotes of the servant girl who, in the ravings of fever, repeated long passages in the Hebrew language, which she did not understand, and could not repeat when well, but which, when living with a clergyman, she had heard him read aloud." He also appeals to the remarkable memory of certain idiots and to similar facts. These phenomena, he believes, offer a clear proof of the existence of unconscious psychic activity.

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<sup>1</sup>See Book II, Ch. 2, where, in paragraphs 4 and 5, I come back to Maudsley's arguments.

I do not understand on what basis he arrives at his conclusions. When she heard the clergyman, this servant girl was aware of hearing. Likewise, when she went back in her imagination to what she had previously heard, she was conscious of the phenomena which recurred in a similar manner. However, with the statement that he had never thought of thinking, when thinking was not actually absent, Goethe wanted to say simply that he had never observed himself while thinking; and this, according to our previous discussion, does in no way mean that his thinking was unconscious. Otherwise we could ask him in what way he arrived at the very concept of thinking of which he speaks.

All this, therefore, appears neither certain nor true. Beyond doubt, on the contrary, is the existence of certain habitual dispositions pursuant to previous acts. The fact that their existence cannot be denied is a sign that the psychological method is not as inadequate as Maudsley believes. In fact, as we said, these dispositions were discovered only by means of the psychological method. On the other hand, however, it is undeniable that there arises a barrier which cannot be overcome by psychological means. In fact, if on the whole we admit as true that these acquired aptitudes and dispositions have a basis in reality (I at least do not hesitate to do so, although many other metaphysicians, as for example, J. S. Mill, would be hesitant), we must also grant that they are not psychic phenomena, because otherwise, as we shall show, they would be conscious. The psychological investigation informs us only that they are in themselves unknown causes which influence the rise of subsequent psychic phenomena, as well as that

they are in themselves unknown effects of previous psychic phenomena. In both instances this investigation can prove in an isolated case that they exist; but it can never and in no way give us knowledge of what they are.

Will this be a sufficient reason for considering worthless our knowledge of the "statical psychic states," which we attain in such a limited manner by means of the psychological method? If this were the case, what value could we then attribute to the natural sciences which are far more frequently confronted by such barriers? As we have already said, the physical phenomena of color, sound and temperature, as well as the phenomena of spatial relationships, do not give us any notion of the realities which manifest themselves through their influence. We can say that such realities exist and can attribute to them certain relative properties. But we can in no way conceive what, and how, they are in themselves and for themselves. Consequently, even if the physiology of the brain had attained a perfect development, it could not give us more information than the purely psychological examination concerning the true nature of the realities with which these acquired dispositions are connected. It would only offer us certain psychic phenomena which would have as their cause the same unknown x.

However, in another respect at least, physiology would offer us more. When a psychic phenomenon leaves behind a disposition from which subsequently another phenomenon similar to its cause will originate, inner experience reveals to us the previous and subsequent psychic states and enables us to see a normal connection between them, but it does not give us any indication

of the intermediary links between them. It would be entirely different if we knew which psychic phenomena, under given conditions, follow one another in the brain during the intermediate stages. We would then have a series of signs which in their succession would correspond to the unfolding of the unknown reality; and as a result, by utilizing these signs, we could interpolate different intermediate links between the two inwardly known phenomena. Thus we could explain a law discovered through psychological analysis in the same way as we do in the case of a natural law, when we discover the intermediary links in an indirect connection of cause and effect. This shows that these intermediary psychic phenomena do not always take place in the same way, and that differences in the way in which they unfold produce differences in subsequent psychic phenomena. The increase of our knowledge, therefore, would be of even greater importance. If in each case the empirical law of the connection of the two psychic phenomena had found an explanation and full certainty through physiological discoveries, it would at the same time attain a greater precision. In fact, the deviations from a rigid regularity are also noticed by an observer whose analysis remains purely psychological. Such an observer, however, cannot take them into account except by weakening his law by such terms as "ordinarily" and "roughly." On the contrary, the psychologist who relies upon physiology will not only be able to explain the law, but also to specify accurately its exceptions and modifications.

In this regard, therefore, Maudsley was undoubtedly right in pointing

out a weakness of all non-physiological psychology. But he was wrong when he denied all value to it, instead of recognizing a limited value to its undertakings. We grant that the law of succession, discovered by means of the psychological method, is empirical and requires further explanation. But do not the natural sciences also include many laws which are empirical and require further explanation? Nevertheless, they assign a high value to these laws. Were the laws discovered by Kepler perhaps worthless before Newton explained them? We further grant that the law of succession discovered by means of the psychological method are not entirely accurate and rigorous. But have not the natural sciences laws to which this same criticism applies? To take up the same noteworthy example, did not the laws of Kepler himself lack accuracy? and even more the laws which Copernicus thought to govern the course of the planets? Nevertheless, his theory of the movement of the earth around the sun was a very valuable and epoch-making approximation. As we said, it also follows from the preceding analysis that investigations based upon the psychological method have limitations, but are not entirely without value.

The same applies to the preceding argument. Maudsley rightly asserts that "the deep basis of all mental function lies in the organic life of the brain." Whether we adhere to either one of these two possible opinions, we cannot deny that the processes of the brain which manifest themselves in the succession of psychic phenomena exert an essential influence upon psychic phenomena and constitute one of their conditions. It is thereby

clear that, even if the vegetative sequence of brain processes, prescind-  
ing from the differences due to the influence of psychic phenomena, always took  
place in the same way, the purely psychological analysis, by neglecting in  
the establishment of the laws of succession such important concurring causes,  
would only give us empirical laws which would need further elucidation.  
Nevertheless, this would in no way limit the universal value of its laws.  
This would not be so, however, if the vegetative life of the brain can vary  
as a result of different psychic influences, and if it is subject to power-  
ful morbid disturbances which produce abnormal psychic phenomena. Since  
this is actually the case, it is clear that the empirical laws discovered  
by means of the psychological method are valid only within certain limits.  
It will be necessary, therefore, to determine, on the basis of reliable  
signs, if we are confronted with one of these limits. However, this has  
already been done with considerable success. Drunkenness, for example,  
betrays itself even to the layman in manifestations which cannot be easily  
misunderstood. Within these limits, therefore, we may trust the laws under  
discussion.

Let us further remark that, if in the application of certain empirical  
laws, psychology thus finds a limitation, this limitation is not necessarily  
at the same time a limitation in its investigation. Psychology can deter-  
mine the nature of abnormal states, and can determine for them, just as for  
normal states, the special laws of their succession. At first sight, it is  
not unlikely, and experience clearly confirms it, that these special laws



are complex laws, and that ordinary laws are included in their complexity. Perhaps the most essential part of the medical treatment of mentally disturbed persons, namely the so-called medical treatment of insane individuals, is based on the fact that to a certain degree we also know the laws of psychic succession in abnormal states.

The analysis of this objection concerning the insufficiency of the secondary conditions of psychic phenomena led to the same result as the analysis of the preceding objection which underlined the insufficiency of the preliminary conditions of psychic phenomena for psychological investigation.

On the basis of the preceding comments anybody sees what type of answer should be given to the first argument, the only one which we still have to retort. When Maudsley asserts that psychic life depends upon material conditions he proves only that the laws of succession, which we would have to discover by means of the psychological method alone, are not strictly speaking the most fundamental laws and demand a further explanation, which can only be attained by means of physiological investigations. His demonstration stops here. Likewise, if differences in physical conditions produce differences in the psychic life of different persons, this proves only that general laws which are established without taking into account existing differences are proportionately lacking in precision. To remedy this shortcoming, it is desirable to add to general psychology a special psychology

(for example, on the one hand a psychology of women, and on the other a psychology of men), not to mention an individual psychology, such as Bacon wanted, and as many of us are practicing to a certain degree with respect to some of our acquaintances. Besides, the general descriptions of zoologists and botanists, which also deal with species in which no individual completely resembles the other, show that even in such cases the general and average norms are not without a high value. Such a value, therefore, cannot be denied to the laws which are found by means of the purely psychological method.

7. We have examined the conception of those who assert that psychology can accomplish its task only on a physiological basis, and that consequently any attempt which depended exclusively on the analysis of psychic phenomena would remain fruitless. A critical appraisal of this conception led us to a conclusion which was in harmony with our previous conclusions. We showed the falsity of the claim that nothing can be attained on the basis of the psychological method; at the same time, however, we saw that not everything can be attained by means of it. We disproved the claim that it was not possible to establish any laws on the basis of psychic experiences, but agreed with the assertion that the discovery of the true fundamental laws of the succession of psychic phenomena was possible only on the basis of physiological facts. The highest generalizations based upon the exclusive analysis of the succession of psychic phenomena can only be empirical laws subject to shortcomings and imperfections, as is also the case with secondary

laws which do not present any deductive character.

If we ask whether psychology should strive toward that ultimate reduction of its highest laws to true fundamental laws on the basis of physiological data, we see immediately that the answer to this question must be similar to that given by A. Bain<sup>1</sup> in more general terms with respect to the advantages of an intermixture of physiological with psychological investigations. At a certain level of knowledge such an attempt may be useful, whereas at another level it is detrimental. We only hope and earnestly wish that the physiology of the brain will one day reach that development which makes it applicable to an explanation of the highest psychological laws of psychic succession. Nevertheless, we believe that the assertions of those who advocate most ardently the utilization of physiology show with indubitable clearness that this day has not yet arrived. Thus J. S. Mill is fully justified in asserting: "It seems to me that it would be a great mistake in theory and a serious mistake in practice to reject the resources of psychological analysis and to base psychology on such data as physiology has offered up to now. As imperfect as the psychic science may be, I do not hesitate to state that it has made more significant progress than the corresponding part of physiology. To sacrifice the former for the latter,

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<sup>1</sup>Logic, II, 276.

therefore, appears to me a violation of the true canons of inductive philosophy, a violation which carries, and will carry with it, erroneous conclusions in some very important branches of the science of human nature."<sup>1</sup>

We can go even further. Not only the surrender of psychological investigation to physiological research, but also the admixture of the latter with the former seems by and large counterindicated. On the whole, to this day, there are only a few ascertained physiological facts which are suited to shed light upon psychic phenomena. To explain the laws of their succession we would have to appeal to the most precarious hypotheses. Moreover, if many bright psychologists followed this path, we would soon see such a profusion of oddly combined systems and such a contrast of diverging opinions, as can already be observed nowadays in the field of metaphysics. Far from having increased thereby in any way the certainty of psychological laws, we would subject them to the suspicion that they are in no way less hypothetical. For the same reasons which prompted us to turn away as much as possible from all metaphysical theories, we also see it expedient to prescind from the hypotheses that are advanced on behalf of a physiological explanation. As J. S. Mill points out in his Preface to the Analysis of the Phenomena of the Human Mind, it is essentially because Hartley failed to do this that his ingenious attempt did not find for a long time the consideration which it deserved.

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<sup>1</sup>System of Logic, Book VI, ch. 4, #2.

## CHAPTER IV

### INVESTIGATIONS ON THE METHOD OF PSYCHOLOGY (cont'd) INNACURATE CHARACTER OF ITS FUNDAMENTAL LAWS DEDUCTION AND VERIFICATION

1. As we have seen, the fundamental laws to which today, and probably for a long time to come, we can refer the phenomena of psychic succession are merely empirical laws. Furthermore, they are indeterminate and inexact. The reason for this, as we have already shown, lies partly in what was said before; partly, however, this indefiniteness is due to another factor.

In his day, Kant denied that psychology was capable of ever becoming an explanatory science and a science in the proper sense of the term. The basic reason which prompted this judgment was the fact that mathematics is not applicable to psychic phenomena because, although they have a time dimension, they have no spatial extension.<sup>1</sup>

Wundt, in his Physiological Psychology, tries to refute this objection. "It is not true," he asserts, "that inner experience has only one dimension, time. If this were the case, mathematical description would be impossible because such a description demands at least two dimensions, i.e., two variables, which can be subsumed under the concept of quantity. But our sensations, images, sentiments are intensive magnitudes which follow one another immediately in time. Our inner life, therefore, has at least two dimensions,

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<sup>1</sup>Metaph. Anfangsgründe der Naturwissenschaft, Preface.

which implies that on the whole we can express them in mathematical form."<sup>1</sup> Thus Wundt seems to agree with Kant on the following points: if psychic phenomena had no other constant magnitude except extension in time, the scientific character of psychology would be considerably impaired. According to Wundt's opinion, psychology is possible as an exact science only because of the fact that we find in the intensity of psychic phenomena a second kind of constant magnitude, which he calls rather inappropriately a second dimension.

Unfortunately, I am afraid that the opposite is the case. Kant's objection would not cause any hesitation on my part. On the one hand, it seems to me that it will always be possible to apply mathematics as long as there is some object which can be numbered; if there are absolutely no differences of intensity and degree, mathematics would have to decide whether or not an idea is evoked through association when three conditions operate in favor of, and two against it. On the other hand, mathematics appears to me necessary for the exact treatment of all sciences only because we actually find magnitudes, in every scientific field. If there were a field which excluded all magnitudes, exact description would be possible even without mathematics. If no intensities existed in the field of psychic phenomena, it would be the same as if all phenomena had the identical and invariable intensity from which we could prescind entirely without risk. It is evident that then the

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<sup>1</sup>Grundsätze d. physiol. Psych., p. 16.

descriptions of psychology would not be less exact than they are at the present time, while its task would be substantially simplified and facilitated. But there are actually differences of intensity in images and affects, which implies the necessity of mathematical measurement. It is only in this way that the laws of psychology will again attain that precision and exactness which would belong to them if its phenomena did not have any intensity or at least any difference of intensity.

2. It was Herbart who first emphasized the necessity of mathematical measurements. The merit which he thereby acquired is just as generally recognized, as is the complete failure of his attempt to discover actual measurements. The arbitrariness of the ultimate principle upon which he bases his mathematical psychology cannot be compensated by his consistent adherence to the rigorous laws of mathematics in the deduction of the conclusions. It becomes evident, therefore, that this method does not help us to make any progress in the explanation of psychic phenomena as revealed by experience. We cannot make any prediction concerning these phenomena on the basis of this method; indeed, any expectation we might have would be in contradiction with actual facts.

Later on, following the procedure of E. H. Weber, Fechner made a new attempt in his Psycho-Physics to measure the intensity of psychic phenomena. Fechner avoided Herbart's mistake. His goal was simply to find a fundamental law of measurement within reach of experience. And just as scientists had

long measured the temporal succession of psychic phenomena in relation to physical phenomena, i.e., regular spatial changes, he also tried to determine their intensity according to a physical measurement. In the case of the strength of sensation, he considered as such a measurement the strength of the external impression which causes the sensation. Furthermore, the "Weber's Law" or "the Psychophysical Fundamental Law," so named by him, considered for all senses, at least within certain limits, one of the two as a function of the other.

I have already (ch. 1, 1) alluded to a rather serious error which could have occurred in this connection. Psychologists found that the increase of the physical stimulus which produces a just noticeable increase in the strength of the sensation is always proportionate to the magnitude of the stimulus to which it is added. And since they assumed as self-evident that each just noticeable increase of sensation is to be considered as equal, they arrived at the law that the intensity of sensation increases by equal magnitudes when the relative increase of the physical stimulus is the same. In reality, it is by no means self-evident that each just noticeable increase is equal, but only that it is equally noticeable; in addition, there remains to be examined what quantitative relationship exists between the equally noticeable increases of sensation. This investigation leads to the conclusion that increases of sensation are just noticeable if they are proportionate to the intensity of the sensation to which they are added. This law is also valid in the case of other modifications of phenomena. Thus, for



example, the increase of an inch by a line is more noticeably unequal than the increase of a foot by the same quantity, if we do not superimpose the two lengths upon one another for comparison. In this instance in fact, the length of the measure which gets the increase makes no difference, since only the two increases are taken into consideration. In other cases, on the other hand, the comparison takes place by virtue of memory which confuses phenomena with one another so much more easily the more similar to one another they are. "Easier-to-confuse," however, means nothing else than "hard-to-distinguish," i.e., to notice less easily the difference of one from the other. Now a foot lengthened by a line is obviously more similar to the initial foot than an inch lengthened by a line is to the initial inch. Therefore, only in the case of a proportionately equal increase, i.e., an increase of an inch, would a foot be equally dissimilar from the original one. Only then the difference between them would be equally noticeable. The very same thing, however, is bound to happen whenever we compare two successive phenomena which, being otherwise equal, differ from one another in intensity. Of course, we also make use of memory in this context. Only if two phenomena are unlike each other to the same degree, their difference will be equally noticeable. In other words, their difference will be just noticeable only if the relation of the increase to the previously given intensity is the same.

We have, therefore, the following two laws:

1. When the relative increase of the physical stimulus is the same, sensation increases by equally noticeable quantities.

2. When sensation increases by equally noticeable quantities, the relative increase of sensation is the same.

Hence it follows:

3. When the relative increase of the physical stimulus is the same, the relative increase of sensation is the same. In other words, when the strength of the physical stimulus increases by the same multiple, the intensity of sensation also increases by the same multiple.

These results no longer contradict what common sense and also Herbart had accepted from the very beginnings: "In the region where lie the foundations of psychology... it is quite easy for us to say that two lights shine twice as bright as one; that three strokes on a key resound three times as loud as one," etc., (cf. p. 358). On the other hand, this assertion is not yet proved. Our law does not require that, whenever the stimulus increases by an equal multiple, sensation increases by the same equal multiple. It would be sufficient that, whenever the stimulus increases by one half, sensation increases by one third. In the case of our law, as in the case of Weber's law, it can only be a question of validity within certain limits. Weber and Fechner, therefore, will always have the incontestably great merit to have rejected common sense judgment in this matter as a prejudice, and to have shown us the way to a sure demonstration. Unfortunately, if I am not mistaken, they have believed too soon to have reached the goal, and thus, in order to correct the original assumption, they have substituted an incorrect

definition for one which might be correct. The contribution which I have made to their investigation, even if it should find unanimous assent, does not alter at all the fact that the exclusive merit of the work belongs to these two great investigators. Likewise, I hardly need to mention that the establishment of the relationship between the increment of the stimuli and a constant increment of sensations which is just noticeable is in itself of great significance.

However, whether psychologists correct the attempt of Weber and Fechner, as I have indicated, or simply consider it accurate and definitive, this attempt cannot lead us to the desired goal.

First of all, the possibility of measuring intensities according to their method is restricted entirely to those phenomena which are produced by external stimulation of the sense organs. We still lack, therefore, a measure of intensity for all psychic phenomena which have their foundation in physical processes within the organism or which are caused by other psychic phenomena. To this category, however, belong the majority and the most important phenomena: the whole class of the appetites and the actions of the will, as well as convictions and opinions of all kinds, and a wide range of images of the imagination. Of all psychic phenomena, sensations alone, and not even all of them, remain measurable.

In addition, even sensations depend not only on the strength of the external stimulus, but also on psychic conditions, e.g., on the degree of

attention. It will be necessary, therefore, to eliminate this influence, by insuring, for example, the highest and fullest degree of attention. However, even if this procedure does not cause any other inconvenience, it would nevertheless impose a new and considerable restriction upon our investigations.

Finally, a clear understanding of what is actually measured by Fechner's method would show us that the object of measurement is not so much a psychic, as a physical phenomenon. If colors, tones, heat and cold, etc., which manifest themselves in our sensations, are not physical phenomena, what is it can we classify as such? Thus when we measure, as Fechner has done, the intensities of colors, tones, etc., we measure the intensities of physical phenomena. Color is not seeing, tone is not hearing, heat is not the sensation of heat. In answer to this objection, it can be said that even if seeing is not color, nevertheless its intensity corresponds to the intensity of the color seen by the subject. In a similar way, the other sensations must correspond in their intensity to the physical phenomena which are represented in them. The strength of the psychic phenomenon, therefore, would be determined at the same time as the strength of the physical phenomenon. I do not want to deny that this is the case. Nevertheless, as we shall see later, there are psychologists who distinguish between the intensity of the object represented and the intensity of the act of representing. For my part, therefore, I admit that when, on the basis of Fechner's method, a measurement can be found for the physical phenomenon, it can also be found

for the psychic phenomenon in which the physical phenomenon is represented. However, it seems to me necessary to add the new restriction that the psychic phenomenon is measured according to its intensity in one aspect only, namely, in its relation to the primary object, for we shall see that the psychic phenomenon has still other aspects and is not to be reduced exclusively to this relation.

On account of all these reasons, therefore, it seems clear to me that Fechner's admirable attempt to measure psychic intensities cannot remedy, or can only remedy to an infinitely small degree, the lack which we are discussing.

The reader will notice how right I was to state above that unfortunately, in opposition to Wundt, I cannot consider in any way the existence of his so-called second dimension of psychic phenomena as the condition which makes possible the scientific exactness of psychology. On the contrary, I think that it will greatly prejudice psychology and make it for the time being absolutely impossible. In fact, whenever Fechner's procedure cannot be applied, it is absolutely impossible for us, at least as of now, to determine the intensity of psychic phenomena in any way other than through a vague comparison of "more" or "less."

Consequently, these are the two reasons which hinder an accurate conception of the highest laws of psychic succession: first, they are only empirical laws dependent upon the variable influence of unexplored physiological processes; secondly, the intensity of psychic phenomena, which

possesses essentially definite limits, up to now cannot be subjected to exact measurement. In view of this, there will always remain room for the application of mathematics; in addition, statistics also furnishes us numerical data, and a statistical method will expand in proportion to the degree to which the laws become less exact, and to the degree to which the constant action of a cause can only be determined from average relations. Thus mathematics proves to be the indispensable adjunct of all sciences in all degrees of exactness and in all different types of relationships.

3. Although psychic induction cannot discover the fundamental laws, nevertheless, it attains laws of a very comprehensive universality. It will be possible, therefore, to deduce from them more specific laws. Accordingly, we can best establish laws for complex psychic phenomena by following the method used by the natural scientist, and in particular by the physiologist, to investigate more complex phenomena in his field of research. The physiologist is not satisfied with having deduced the laws for more complex phenomena from higher laws; he takes pains to verify these laws by direct induction from experience. In the same way, the psychologist must seek in the inductive procedure a verification of the law which he found deductively. Indeed, such a verification seems especially advisable in his case because, as we have seen, the higher laws which constitute the starting point of his deduction often leave much to be desired with regard to precision. In view of this, it follows that the simple reference to certain outstanding cases is already a gratifying confirmation, especially in the absence of other

cases which appear contradictory. If this is the case, then a statistical confirmation will give the desired proof. Thus, psychology will possess numerous examples which furnish an excellent illustration of the deductive method in the empirical field, and of the three stages which the logicians have distinguished in it: induction of general laws, deduction of specific laws, and verification of these laws by means of empirical facts.

It is clear from this analysis that, if on the one hand psychology cannot overlook the demonstration by direct experience in its effort to establish the laws which govern more complex phenomena, on the other, it cannot consider such a demonstration as sufficient. It is not merely because of the scientific interest to reduce as much as possible the multiplicity of facts to the unity which explains them that we strive to ascend to the highest attainable principles: deduction, just as it gives a more complete understanding, so it also grants a greater certainty. In fact, as in any other field, general laws are also more reliable here. If general laws lack absolute precision and exactness, much more so do particular laws. If we can formulate general laws only by indicating what usually occurs and leaving room for exceptions, these exceptions will increase in the case of particular laws. This is natural because the circumstance which constitutes the most essential reason of inadequate precision in the case of general law is also present to a greater degree in the case of particular laws. These laws, therefore, deserve even less claim to be considered fundamental laws. Just as the discovery of the highest fundamental laws would account for both

our present highest psychic laws and also their exceptions and limits, so the deduction of particular laws from them will often explain at the same time the laws themselves and their exceptions, and will determine more exactly the instances falling under these exceptions.

At least one thing can readily be accepted: we can invert the relation between deduction and its confirmatory induction. In fact, with respect to both our understanding of a law and its certainty, it makes no difference whether we verify it by induction, after having deduced it, or whether we discover it by induction and then explain it with respect to more general laws. We pass then from the so-called deductive method of the natural scientist to what has been called the inverse deductive method. This method has also been called<sup>1</sup> the historical method because it is ideally suited for the discovery of the laws of history. It was in this way that Comte discovered the laws which he put at the basis of his noteworthy attempt of a philosophy of history.

This so-called historical method is also applicable outside of history to the psychic field, often with greater advantage than the usual deductive method. Preparatory direct induction shows the way to deduction and gives direction to it. Everyday experience has frequently attained such inferior

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<sup>1</sup>Cf. J. S. Mill, System of Logic, Book VI, ch. 10.



empirical laws and has expressed them in the form of proverbs. - "Once a use, and ever a custom," "All things are difficult in the beginning," "New brooms sweep clean," "Variety is the spice of life," and the like, are expressions of such empirical generalisations. In this context, therefore, the task of the psychologist consists simply in seeking an explanation, verification and more exact delimitation of these empirical laws through their subordination under more general and more simple laws of which the common man does not have any knowledge. Pascal, as is well known, has made a somewhat related attempt in one of his "Pensées."

4. In the case of the investigation concerning immortality the procedure will also be deductive. This deduction will be based upon general facts which have been inductively established in our preceding discussions. This investigation which touches upon a problem that has aroused the most vivid interest of all generations will obviously have to assume in many respects a new character. It will be forced, on the one hand, to take into consideration some laws of metaphysics, more than is usually done by a phenomenological psychology, and on the other hand, it will have to employ even more than in the preceding investigations the results of psychology. In fact, the question of the possibility of a continuance of psychic life following the disintegration of the organism is really a psychophysical question. It is but one of those questions which, according to our previous explanation, because of the preponderance of psychological considerations,

belong to psychology, and not to physiology. But will it be possible for us to find by means of induction in the psychic field general facts which furnish the premises for a deduction which will solve the problem of immortality? Will we not be forced to penetrate so deeply into metaphysics that we lose the true path in vague, groundless reveries? Will the facts which we have to borrow from physiology be of such a nature that, in the present state of this science, they can only inspire too small a degree of confidence? These are questions which could, probably not unjustly, be raised. However, this is not the right place to answer them. Moreover, we do not want to discuss here any further the method which should be followed in the investigation of this point. Just as each former science in its development furnishes indications of the method of the science which will follow it, so in the case of one and the same science the development of a previous part can also give us information concerning the method of treatment of a subsequent part. In addition, by its very nature this investigation is such that it will be best to assign to it the last place in the series of psychological discussions.

Let us add only--since this is self-evident--that there cannot be any verification through direct experience concerning the problem of immortality. It seems, therefore, that we lack an essential methodological tool. However, in place of direct experience we can perhaps substitute an indirect one, inasmuch as numerous phenomena of experience can be better understood if we accept the hypothesis of immortality than if we deny it. In a similar way,

the phenomena of gravitation give us only indirect evidence of the rotation of the earth around its axis.

Before closing our discussions concerning the method of psychology let us add a last, and more general remark concerning a methodological procedure which often prepares and facilitates our investigations in other fields, but does so especially in the psychological field. I have in mind a procedure which Aristotle tended to use so readily, that is, the classification of the "Aporiae." This classification shows all the different possible hypotheses, indicates for each of them the characteristic difficulties, and in particular gives a dialectical and critical aperçu of all the contradictory opinions formulated by eminent men or held by the masses. Likewise, in his last essay about Grote's Aristotle, which he published a few months before his death in the Fortnightly Review, J. St. Mill also evaluated with acute understanding the advantages of this preliminary investigation. I believe that it is evident why psychologists in particular can derive even greater profit from divergent opinions than investigators in any other field. Each of these opinions, even though it is perhaps considered only under one aspect or interpreted erroneously, is based upon some elements of truth and upon some experience. Moreover, when we are dealing with psychic phenomena, each individual has his particular perceptions which are not accessible in the same form to anyone else.

BOOK II

PSYCHIC PHENOMENA IN GENERAL

## CHAPTER 1

### DISTINCTION BETWEEN PSYCHIC AND PHYSICAL PHENOMENA

1. The entire world of our phenomena falls into two large classes, that of physical and that of psychic phenomena. We spoke of this distinction earlier when we established the concept of psychology, and we returned to it again in our treatment of method. However, what we said is not sufficient. We must now establish more firmly and more exactly what we have merely mentioned in passing.

This seems all the more necessary since neither agreement nor complete clarity have been reached in regard to the delimitation of the two areas. We have already seen, on occasion, how physical phenomena which appear in the imagination were taken for psychic phenomena. A similar confusion is encountered in many other instances. In this connection, it might be difficult to defend even important psychologists against the reproach that they contradict themselves.<sup>1</sup> For instance, we encounter statements like the

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<sup>1</sup>In this respect, I myself cannot harmonize the different definitions given by A. Bain in one of his latest psychological works: Mental Science (London: 3rd ed., 1872). On p. 120, No. 59, he says that the psychic science (Science of Mind, which he also calls Subject science) "is grounded on self-consciousness or introspective attention," the eye, the ear, the organ of taste being only the media for the observation of the physical world, of the "Object world," according to his expression. Whereas on P. 198, No 4, he states: "The perception of matter or the object consciousness is connected with the putting forth of muscular energy in opposition to passive feeling." And by way of explanation, he adds: "In purely passive feeling as in those of our sensations that do not call forth muscular energies, we are not perceiving matter, we are in a state of subject consciousness." He illustrates this with the example of the sensation of warmth that one has when taking a warm bath, and with those cases of soft touch in which there is no muscular activity, and declares that, under the same conditions, sounds and possibly even light and color could be "a purely subject experience." Thus he takes as illustrations

following: perception and imagination are distinguished by the fact that one occurs as the result of a physical phenomenon, while the other, according to the laws of association, is evoked by a psychic phenomenon. However, the same psychologists hold that what appears in perception does not correspond to its external cause. Thus it seems that the so-called physical phenomenon actually does not appear to us, that, indeed, we have no image of it; and this is certainly a peculiar way of misusing the term "phenomenon." Because of the existing confusion concerning this problem, we must dwell upon it somewhat more in detail.

2. The explanation we are seeking is not a definition according to the traditional rules of the logicians. These rules have recently been the object of unprejudiced criticism; and other criticisms could be added. Our aim is to clarify the meaning of the terms physical phenomenon and psychic phenomenon, removing all misunderstanding and confusion concerning them. In this context, we are not concerned about the kind of means which we use, as long as they really throw light upon the problem under discussion.

To this end, it is not sufficient to give general and subordinated definitions. Just as in the area of demonstration deduction stands opposite to induction, so in our case explanation through general principles stands opposite to explanation through the particular, through examples. This is

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to substantiate subject consciousness the very sensations from the eye, ear and taste organ, which he had characterized as indicators of "object consciousness" in opposition to "subject consciousness."

appropriate whenever the particular terms are clearer than the general ones. Thus it is perhaps a more effective procedure to explain the term color by saying that it designates the class which contains red, blue, green and yellow, rather than to do the opposite by attempting to clarify red as a particular kind of color. Moreover, explanation through particular definitions will be of even greater service when we are dealing, like in our case, with terms which are not commonly used in ordinary life, while those of the individual phenomena included under them are frequently used. Let us, therefore, attempt first of all to clarify the concepts through examples.

An example of psychic phenomena is offered by every image which occurs in sensation or imagination. By image I do not mean here that which is represented, but rather the act of representing. Thus, the hearing of a tone, the seeing of a colored object, the feeling of warmth or cold, as well as similar imaginative states are examples of what I mean by this term. I also mean by it the thinking of a general concept, granting that there actually is such a concept. Furthermore, every judgment, every recollection, every expectation, every conclusion, every conviction or opinion, every doubt is a psychic phenomenon. Also to be included in this term is every emotion: joy, sadness, fear, hope, courage, despair, anger, love, hate, desire, inclination, intention, surprise, admiration, contempt, etc.

Examples of physical phenomena, on the other hand, are a color, a shape, a landscape which I see; a chord which I hear; the warmth, the cold, the odor which I perceive; as well as similar images which appear in my imagination.

These examples may suffice to illustrate the difference between the two classes of phenomena.

3. But let us try to give a more concise explanation of psychic phenomena. For this purpose we make use of a definition we have already used when we pointed out that the term psychic phenomena applies to images as well as to all the phenomena which are based upon images. It is hardly necessary to mention that by image we again do not mean that which is represented, but rather the act of representing. This act of representing does not merely form the foundation of the act of judging, but also of the act of desiring and of every other psychic act. Nothing can be judged, desired, hoped or feared, if it is not represented. Thus the definition given includes all the examples of psychic phenomena which we listed above and in general all the phenomena belonging to this domain.

That psychology has not yet attained its maturity is indicated by the fact that we can hardly express a tenet concerning psychic phenomena which would not be impugned by many. Nevertheless, we can say that most psychologists agree with what we have just said, that is, that images are the foundation of all the other psychic phenomena. Thus Herbart asserts quite rightly: "Whenever we feel, something will exist in consciousness as a represented object, even though only in a very varied, confused and multiple fashion, so that this particular image is included in this particular feeling."



Likewise, whenever we desire something... we think what we desire."<sup>1</sup>

Herbart, however, goes further. In all other phenomena he sees nothing but certain states of images which can be derived from the images themselves. This opinion has already been attacked with decisive argument by different authors and in particular by Lotze. Most recently, J. B. Meyer, among others, has also opposed it in a rather long discussion in his description of Kant's psychology. But Meyer was not satisfied to deny that feelings and desires could be derived from images; he maintained that phenomena of this kind can also exist without any image. Indeed, Meyer believes that lower animals have feelings and desires, but no imagination, and that also the life of higher animals and of men begins with mere feeling and wants, while the act of representing is added to this only with progressive development. In this way Meyer seems to come into conflict also with our assertion.

But, if I am not mistaken, the contradiction is more apparent than real. Several of his expressions suggest that Meyer has a narrower conception of imagination than we have, while he correspondingly broadens the concept of sentiment. "Imagination," he says, "begins when the modification which we experience in our own state can be considered as the consequence of an external stimulus, even if this act is at first expressed only in the effort,

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<sup>1</sup>Psych. als Wissensch., Part II, Section 1, ch. 1., #103. Cf. also Drobisch: Empir. Psycholog., p. 38 and 348, and other thinkers belonging to Herbart's school.

which takes place unconsciously, to discover an external object by means of sight or touch." If by imagination Meyer were to understand the same thing as we do, he could not possibly express himself in this way. He would see that a state, like the one which he describes as the beginning of the act of imagination, would already contain a large number of images, i.e., images of temporal succession, of spatial proximity, and of cause and effect. If all this must already be present in the mind, so that an image in J. B. Meyer's sense can take place, it is clear that such an image cannot be the foundation of every other psychic phenomenon. But the very presence of each of the phenomena that were enumerated already constitutes an image in our sense of the term. In addition, such an image occurs whenever something appears in consciousness; whether something is hated or loved or regarded with indifference; whether it is acknowledged or rejected, or whether judgment is entirely suspended about it, I cannot express myself better than by saying that it is represented. As we use it, the expression "to represent," "to be represented" is synonymous with the expression "to appear."

J. B. Meyer himself recognizes that even the lowest feeling of pleasure and displeasure presupposes an image in this sense. However, since he differs from us in his terminology, he does not call it an image, but a feeling. The following passage seems to bring this out: "Between non-sensing and sensing there is no middle term...The simplest form of sensation need not be anything more than a simple sensing of the change produced by any stimulus in one's own body or part of the body. Beings that are endowed with such a

sensation would then have only a feeling of their own state. This vital feeling of processes occurring underneath one's own skin could indeed be connected directly with a differential sensibility of the soul for changes that are beneficial or harmful to it, even though this new sensibility would not result simply from this feeling. Moreover, in addition to sensation, such a soul could have feelings of pleasure and displeasure... However, a soul thus endowed would not yet possess any imagination."<sup>1</sup> It is clear, therefore, that what, according to us, would exclusively deserve the name of feeling manifests itself, also, according to J. B. Meyer, as a second phenomenon following another which falls under the concept of imagination, as we understand it, and which constitutes its indispensable condition. Thus, it appears that, when translated into our terminology, Meyer's opinion agrees with our point of view.

This is perhaps also the case with others who express themselves very much like Meyer. It may still happen that someone is of the opinion that certain sensory feelings of pleasure and displeasure are not based upon an image in our sense of the term. A certain temptation to do this cannot be denied. For example, this is true with respect to feelings which are produced by cutting or burning. If someone cuts himself, he does not experi-

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<sup>1</sup> Kants Psychol., p. 92. J. B. Meyer appears to conceive sensation in the same way as Ueberweg does in his Logic (2nd ed., I, 64, 36): "Perception differs from simple sensation insofar as consciousness is attached only to the subjective state in sensation, but attains in perception an element which is perceived and for this reason...stands to the act of perceiving as a dis-

ence any perception of touch; if he burns himself, he does not experience any perception of heat. Only pain seems to be present in both cases.

Nevertheless, this feeling is undoubtedly based upon an image. In the cases under discussion we always have an image of a definite localization which we usually characterize in relation to some visible and touchable part of our body. We say that our foot aches, that our hand is sore, that this or that part of the body hurts. Those who consider such a spatial image as something originally given by the stimulation of the nerves themselves cannot deny that an image is the basis of these feelings. But others, too, cannot avoid the same assumption. For there is in us not only the image of a definite localization, but also that of a special sensory quality which belongs to the physical phenomena and which must be clearly distinguished from the accompanying feeling. If we hear a pleasing and mild tone or a shrill, a harmonious chord or a dissonance, it will not occur to anyone to identify the tone with the accompanying feeling of pleasure or pain. But there, too, where a feeling of pain or pleasure is aroused in us by cutting, burning or tickling, we must in the same way distinguish a physical phenomenon, which appears as the object of external perception, from the psychic phenomenon of feeling, which accompanies its appearance, even though in this case the super-

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tinct object." Even if Ueberweg's opinion concerning the distinction of sensation from perception were correct, sensation would nevertheless imply an image in our sense of the term. We shall later show why we do not consider it correct.

ficial observer is rather inclined to confuse them.

The main reason which brings about this false belief is probably the following. It is well known that our perceptions are mediated by the so-called sensory nerves. In the past scientists thought that special nerves served as exclusive conductors for each class of sensory qualities, like color, sound, etc. More recently, on the other hand, physiology is more and more inclined to take the opposite viewpoint,<sup>1</sup> in that it teaches almost universally that the nerves for tactile sensations, if stimulated in a certain way produce in us so-called sensations of pleasure and pain. In reality, however, something similar is true for all the nerves, insofar as pain can be produced in us by every nerve. If they are stimulated by very strong stimuli, all the nerves produce painful phenomena, which cannot be distinguished from one another.<sup>2</sup> When a nerve transmits different kinds of sensations, it often happens that it transmits several sensations at the same time. Looking into an electric light, for example, produces simultaneously a "beautiful," i.e., pleasant color phenomenon and a phenomenon of another class which is painful. The nerves of the sense of touch often simultaneously transmit a so-called sensation of contact, a sensation of

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<sup>1</sup>Cf. especially Wunt, Physiol. Psychol., p. 345 ff.

<sup>2</sup>Cf. below Book II, ch. III, 6.

warmth or cold, and a so-called sensation of pleasure or pain. Now we notice that when several sensory phenomena appear at the same time, they are not infrequently considered as one. This has been proven in a striking manner in regard to the sensations of smell and taste. It is well-established that almost all the distinctions, which are usually considered distinctions of taste, are in reality only distinctions of concomitant olfactory phenomena. Something similar occurs when we eat a cold or warm plate: we often think that there are differences in taste, while in reality there are only differences in temperature sensation. It is not surprising, then, if we do not always separate correctly a phenomenon of the sense of temperature from a phenomenon of the sense of touch. Perhaps we would not even separate them at all if ordinarily they did not appear separately from each other. If we now look at affective sensations, we find on the contrary that their phenomena are usually linked with sensations of another class which at best disappear in the case of a very strong stimulation. Thus the fact that a given individual has been mistaken about the appearance of a particular class of sensory qualities and has believed that he has had one single sensation instead of two is very easily explained. Since the intervening image was accompanied by a relatively very strong feeling, incomparably stronger than that which followed the first type of quality, this individual considered this psychic phenomenon as the only new thing he experienced. In addition, if the first type of quality disappeared completely, he would believe that he possessed only a feeling without an underlying image of a physical phenomenon.

A further reason which enhances this false belief is the fact that the quality, which precedes the feeling, and the feeling itself do not have two different names. The physical phenomenon which appears together with the feeling of pain is also called pain. Indeed, we do not say that we sense this or that phenomenon in the foot with pain; we say that we feel pain in the foot. This is an equivocation, as, indeed, we often find when different things stand in close relationship with one another. We call the body healthy, and in reference to it we say that the air, the food, the color of the face, and the like are healthy, but obviously in another sense. In our case, the physical phenomenon itself is called pleasure and pain in reference to the feeling of pleasure or pain which accompanies the appearance of the physical phenomenon; and here, too, the terms pleasure and pain have a different meaning. It is, as if we would say of a harmonious chord that it is a pleasure for us because we have a feeling of pleasure when we hear it; or also, that the loss of a friend is a great sorrow for us. Experience shows that equivocation is one of the main obstacles in recognizing distinctions. In particular, equivocation inevitably became such an obstacle here, where there is danger of confusion from the very start, and where the extension of the term was perhaps itself the result of this confusion. Thus many psychologists were deceived by this equivocation, and in its turn this error fostered further errors. Many came to the false conclusion that the sensing subject must be present at the place of the injured limb in which perception localizes a painful phenomenon. Since they identified the phenomenon with

the accompanying pain sensation, this phenomenon was regarded as a psychic and not as a physical phenomenon. It is precisely for this reason that they thought that its perception in the limb was an inner, and consequently evident and infallible perception.<sup>1</sup> Their view was contradicted by the fact that the same phenomena often appeared in the same way after the amputation of the limb. For this reason others argued, in a rather skeptical manner, against the evidence of inner perception. The difficulty disappears if we distinguish between pain in the sense in which the term describes the apparent condition of a part of our body, and the feeling of pain which is connected with the concomitant sensation; keeping this in mind, we shall no longer be inclined to assert that there is no image at the basis of the feeling of sensory pain experienced during an injury.

We may, accordingly, consider as undoubtedly correct this definition of psychic phenomena: they either are images or, in the sense described above, are based upon images. Such a definition offers a second, more simple explanation of their concept. This explanation, of course, does not possess a perfect unity because it separates psychic phenomena into two groups.

4. Attempts have been made to give negatively a completely uniform definition which characterizes all psychic phenomena as opposed to physical

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<sup>1</sup>This is also what the Jesuit Tongiorgi teaches in his widely used Principles of Philosophy.



phenomena. All physical phenomena, it is stated, show extension and spatial localization, whether they are phenomena of vision or of another sense, or whether they are creations of the imagination, which presents similar objects to us. On the other hand, psychic phenomena such as thought and will appear without extension and without spatial localization.

According to this view, it would be possible for us to characterize physical phenomena easily and exactly in contrast to psychic ones by saying that they are those phenomena which appear extended and localized in space. Psychic phenomena would then be definable with equal exactness as those phenomena which do not show extension or spatial localization. Descartes and Spinoza would be cited in support of such a distinction. The chief advocate of this view, however, is Kant who explains space as the form of the intuition of the external sense.

Recently Bain has given the same definition: "The department of the Object, of Object-World," he says, "is exactly circumscribed by one property, namely Extension. The world of Subject-experience is devoid of this property. A pleasure has no length, breadth, or thickness; it is not an extended thing. A thought or idea may refer to extended magnitudes, but it cannot be said to have extension in itself. Neither can we say that an act of the will, a desire or a belief occupy dimensions in space. Hence all that comes within the sphere of the Subject is spoken of as the unextended. Thus, if Mind, as commonly happens, is put for the sum-total of Subject-experiences, we may define it negatively by a single fact--the absence of

Extension."<sup>1</sup>

Thus it seems that we have found, at least negatively, a uniform definition for the totality of psychic phenomena.

But even in this context, there is no unanimity among psychologists. For opposite reasons, many of them deny that extension and lack of extension are characteristics which distinguish physical and psychic phenomena.

Many declare that this definition is false because not only psychic phenomena, but also many physical phenomena appear without extension. A large number of psychologists, for example, teach that the phenomena of some, or even of all of our senses originally appear free from all extension and spatial localization. In particular, this view is quite generally held with respect to sounds and olfactory phenomena. This is true, according to Berkeley, about colors; according to Platner, about the phenomena of touch; according to Herbart and Lotze, as well as according to Hartley, Brown, the two Mills, H. Spencer, and others, of the phenomena of all the external senses. Indeed, it seems that the phenomena revealed by the external senses, especially sight and the sense of touch, are all spatially extended. The reason for this, it is stated, is due to the fact that we connect them with spatial images that are gradually developed on the basis of earlier experiences. While they are originally without spatial localization, we subse-

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<sup>1</sup>Mental Science, Introd., ch. 1.

quently localize them. If this were really the only way in which physical phenomena attain spatial localization, we could obviously no longer separate the two fields in this manner. Psychic phenomena, in fact, are also localized by us in this way. For example, when we place a phenomenon of anger into the irritated lion, and our own thought into the space taken up by us.

This is one way in which the above definition has been criticized by many eminent psychologists, including Bain. While at first sight this author seems to defend such a definition, in reality his point of view on this issue coincides with that of Hartley. He has been able to express himself as he has done only because (although not always consistently) he actually does not consider the phenomena of the external senses in and for themselves among physical phenomena.<sup>1</sup>

Others will reject this definition for an opposite reason. It is not so much the assertion that all physical phenomena appear extended that shocks them, but rather the assertion that all psychic phenomena lack extension. According to them certain psychic phenomena also appear to be extended. Aristotle seems to have been of this opinion when, in the first chapter of his treatise on Sense and Sense Object, he considers it immediately evident, without any previous proof, that sensory perception is the

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<sup>1</sup>Cf. above, p. 120, note 1.

act of a bodily organ.<sup>1</sup> Modern psychologists and physiologists sometimes express themselves similarly about certain emotions. They speak of a feeling of pleasure or pain which appears in the external organ, sometimes even after the amputation of the limb; and, of course, just like perception, feeling is a psychic phenomenon. Some authors even maintain that sensory appetites appear localized. This view is shared by the poet when he speaks, not, to be sure, of thinking, but of a rapture and a longing which penetrates the heart and all the limbs.

Thus we see that the distinction under discussion is attacked from the point of view of both physical and psychic phenomena. It may be that this twofold opposition is equally unjustified.<sup>2</sup> However, another common definition of psychic phenomena is at any rate still desirable. Whether certain psychic and physical phenomena appear extended or not, the controversy proves that the criterion given for a clear separation is not adequate. In addition, this criterion gives us only a negative definition of psychic phenomena.

5. What positive criterion shall we now be able to provide? Perhaps,

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<sup>1</sup>De Sens. et Sens. 1, p. 436, b, 7, Cf. also what he says in De Anima, I, 1, p. 403 a, 16, of affective states, in particular about fear.

<sup>2</sup>The assertion that psychic phenomena also appear to be extended rests obviously on a confusion of psychic and physical phenomena similar to the confusion which we established above when we pointed out that an image is also the necessary foundation of sensory feelings.

there is no positive definition which can be applied to all psychic phenomena. A. Bain thinks that this is the case.<sup>1</sup> In the past, however, psychologists have pointed out that there is a special relationship and analogy among all psychic phenomena which is not found among physical phenomena.

Every psychic phenomenon is characterized by what the Scholastics of the Middle Ages called intentional (also perhaps mental)<sup>2</sup> in-existence of an object. In spite of some ambiguity, we call it a relation to a content, a direction toward an object (which is not to be interpreted as reality), or an immanent objectivity. Every psychic phenomenon contains something as an object within itself, even though not in the same way. In imagination something is represented; in judgment something is acknowledged or rejected; in love something is loved; in hate something is hated; in desire something is desired.<sup>3</sup>

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<sup>1</sup>The Senses and the Intellect, Introd.

<sup>2</sup>They also use the expression "to exist as an object (objective) in something," which, if we wanted to use it at the present time, would be considered as a designation of a real existence outside the mind. At least this is what is suggested by the expression "to exist immanently as an object," which is occasionally used in a similar sense, and in which evidently the term "immanent" should exclude the misunderstanding which is to be feared.

<sup>3</sup>Aristotle himself spoke of this psychic in-existence. In his treatise On the Soul he says that the sensed object as such is in the sensing subject, that the sense contains the sensed object without matter, that the object which is thought is in the thinking intellect. In Philon, likewise, we find the doctrine of mental existence and in-existence. However, since he confuses them with existence in the proper sense of the word, he reaches his

This intentional in-existence is exclusively characteristic of psychic phenomena, not being found in any physical phenomenon. We can, therefore, define psychic phenomena by saying that they are those phenomena which intentionally contain an object within themselves.

Here, too, we fall into controversies and contradictions. Hamilton, in particular, denies this characteristic to a whole broad class of psychic phenomena, namely, to all those which he characterizes as feelings, to pleasure and pain in all their most varied types and degrees. With respect to the phenomena of thought and desire he is in agreement with us. He admits as evident that there is no act of thinking without an object that is thought, nor a desire without an object that is desired. "In the phenomena of feelings, - the phenomena of pleasure and pain, - on the contrary," he says, "consciousness does not place the mental modification or state before

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contradictory doctrine of the Logos and Ideas. The same is true of the Neoplatonics. St. Augustin in his doctrine of the Verbum mentis and of its inner origin touches upon the same fact. St. Anselme does the same in his famous ontological argument; many authors have observed that his consideration of mental existence as a true existence is at the basis of his paralogism (Cf. Ueberweg, Gesch. der Phil., II). St. Thomas Aquinas teaches that the object which is thought is intentionally in the thinking subject, the object which is loved is the loving subject, the object which is desired in the subject that desires, and uses this for theological purposes. When the Holy Scripture speaks of an inhabitation of the Holy Ghost, St. Thomas explains it as an intentional inhabitation through love. In addition, he attempted to find, through the intentional in-existence in the act of thinking and loving, a certain analogy for the mystery of the Trinity and the procession ad intra of the Word and the Spirit.

itself; it does not contemplate it apart,--as separate from itself,--but is, as it were, fused into one. The peculiarity of feeling, therefore, is that there is nothing but what is subjectively subjective; there is no object different from the self,--no objectification of any mode of Self.<sup>1</sup> In the first instance there would be something which, according to Hamilton's terminology, is "objective," in the second instance something which is "objectively subjective," as in self-awareness, the object of which consequently Hamilton calls "subject-object." By denying both concerning feelings, Hamilton rejects unequivocally all intentional in-existence of these phenomena.

In reality, what Hamilton says is not entirely correct, since certain feelings undeniably refer to objects. Our language itself indicates this through the expressions which it uses. We say that we are pleased with or about something, that we feel sorrow or grieve about something. Likewise, we say: that pleases me, that hurts me, that makes me feel sorry. Joy and sorrow, just as affirmation and negation, love and hate, desire and repulsion, clearly follow upon an image and are related to that which is represented in it.

One might be inclined to agree with Hamilton particularly in those cases in which, as we saw earlier, it is most easy to fall into the error that there is no image at the basis of feeling; thus, for example, in the case of pain caused by a cut or a burn. But the only reason is simply the

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<sup>1</sup>Lect. on Metaph., I, 432.

temptation to make this assumption which, as we saw, is wrong. Moreover, Hamilton himself acknowledges with us the fact that images, without exception, and consequently also in this case, form the foundation of feelings. His denial of an object for feeling is, therefore, all the more surprising.

One thing, of course, must be admitted. The object to which a feeling refers is not always an external object. Thus, when I hear a pleasing sound, the pleasure which I feel is not really a pleasure due to the sound, but rather a pleasure due to hearing. Indeed, we could perhaps even say, not without reason, that in a certain way this pleasure refers to itself. Therefore, what Hamilton says would more or less occur: namely, the feeling is "blended into one" with the object. But the same thing is true of many phenomena of imagination and knowledge, as we shall see in the examination of inner consciousness. Still, there remains in them a mental in-existence, or, to use Hamilton's terminology, a subject-object. The same thing, therefore, will also apply to these feelings. Hamilton is wrong when he says that in them everything is "subjectively-subjective." This expression actually contradicts itself. If we cannot speak of object, we can also no longer speak of subject. Indeed, upon closer scrutiny, when he speaks of a blending of the feeling with the psychic impression, Hamilton bears witness against himself. Every blending is a union of more than one. Consequently, the metaphorical expression which is supposed to clarify the specific character of feeling still indicates a certain duality in the unity.



We may, therefore, consider the intentional in-existence of an object as a general characteristic of psychic phenomena which distinguishes this class of phenomena from the class of physical phenomena.

6. Another common characteristic of all psychic phenomena is the fact that they are only perceived in inner consciousness, while in the case of physical phenomena external perception alone is possible. This distinguishing characteristic is emphasized by Hamilton.

It could be argued that such a definition is not very meaningful. In fact, it seems much more natural to define the act according to the object, and therefore to state that inner perception, in contrast to every other perception, is the perception of psychic phenomena. However, besides the specificity of its object, inner perception possesses another distinguishing characteristic: its direct, infallible evidence. Of all the types of knowledge of the objects of experience, inner perception alone possesses this characteristic. Consequently, when we say that psychic phenomena are those which are apprehended by means of inner perception, we say that their perception is immediately evident.

Inner perception is not merely the only perception which is immediately evident. It is really the only perception in the proper sense of the word. As we have seen, the phenomena of the so-called external perception cannot be proved true and real even by way of an indirect demonstration. For this reason, anyone who in good faith has taken them for what they seem to be will be convinced of error by the connection of phenomena. Strictly speaking, the

so-called external perception is not a perception. Psychic phenomena, therefore, may be described as those in reference to which alone a perception in the real sense of the word is possible.

This definition, adequately characterizes psychic phenomena. This is not to say that all psychic phenomena are internally perceivable by all men, and that all those which someone cannot perceive are to be included by him among physical phenomena. On the contrary, as we have already expressly noted above, it is evident that no psychic phenomenon is perceived by more than one individual. At the same time, however, we have also seen that every class of psychic phenomena is present in every fully developed human psychic life. For this reason, the reference to the phenomena which constitute the area of inner perception sufficiently serves our purpose.

7. We said that psychic phenomena are those phenomena which alone can be perceived in the proper sense of the term. We may likewise say that they are those phenomena which alone possess a real existence as well as intentional existence. Knowledge, joy and desire really exist. Color, tone and warmth have only a phenomenal and intentional existence.

There are philosophers who go so far as saying that it is self-evident that the so-called physical phenomena cannot possess a real existence. According to them, the assertion that these phenomena have an existence different from mental existence is self-contradictory. Thus, for example, Bain says that attempts have been made to explain the phenomena of external perception "by supposing a material world, in the first instance, detached from

perception, and, afterwards, coming into perception, by operating upon the mind." "This view," he says, "involves a contradiction. The prevailing doctrine is that a tree is something in itself apart from all perception; that, by its luminous emanation, it impresses our mind and is then perceived, the perception being an effect, and the unperceived tree the cause. But the tree is known only through perception, whether it may be anterior to, or independent of, perception, we cannot tell, we can think of it as perceived, but not as unperceived. There is a manifest contradiction in the supposition. We are required at the same moment to perceive the thing and not to perceive it. We know the touch of iron, but we cannot know the touch apart from the touch."

I must confess that I am unable to convince myself of the soundness of this argumentation. It is undoubtedly true that a color appears only to us when we represent it. However, we cannot conclude from this that a color cannot exist without being represented. Only if the state of being represented were contained in the color as one of its elements, would a color which is not represented imply a contradiction, since a whole without one of its parts is indeed a contradiction. However, this is obviously not the case. If it were otherwise, it would also be absolutely inconceivable how the belief in the real existence of physical phenomena outside our imagination could, I will not say, originate, but attain the most general divul-

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<sup>1</sup>Mental Science, 3rd ed., p. 198.

gation, and actually be shared for a long time by the most outstanding thinkers. Bain said: "we can think of a tree as perceived, but not as unperceived; there is a manifest contradiction in the assumption." If what he said were correct, his further conclusions could not be objected to. Bain explains this statement by remarking: "we are required at the same moment to perceive the thing and not to perceive it." It is not correct, however, to say that such a demand is placed upon us. In fact, in the first place, not every act of thinking is a perception. Secondly, even if this were the case, it would only follow that we can think only of trees that have been perceived by us, but not that we can think only of trees insofar as they have been perceived by us. To taste a piece of white sugar does not mean to taste a piece of sugar as white. The vicious circle appears quite clearly in the case of psychic phenomena. If one would say: "I cannot think about a psychic phenomena without thinking about it; therefore, I can only think about psychic phenomena insofar as they are thought by me; therefore, there does not exist any psychic phenomenon outside my thinking," his method of reasoning would be identical to that of Bain. Nevertheless, Bain himself will not deny that his individual psychic life is not the only one which has real existence. When Bain adds: "we know the touch of iron, but we cannot know the touch apart from the touch," he obviously uses the term touch first in the sense of the object which is sensed and secondly in the sense of the act of sensing. These are different concepts, even though the word is the same. Consequently, only those who would let themselves be deceived by this equiv-

ocation could grant the existence of immediate evidence as postulated by Bain.

It is not correct, therefore, to say that the assumption that there exists outside the mind a physical phenomenon, which is just as real as those which we find intentionally in us, implies a contradiction. It is necessary to compare these two kinds of realities to discover conflicts which clearly show that no real existence corresponds here to the intentional existence. This applies only to the realm of our own experience; but probably we shall not be mistaken if in general we deny to physical phenomena all other existence except intentional existence.

8. Great stress has been laid upon another circumstance which would allow us to distinguish physical and psychic phenomena. Psychic phenomena, it has been asserted, always manifest themselves successively, while many physical phenomena manifest themselves simultaneously. Nevertheless, this assertion has not always been understood properly. Some of the meanings which have been given to it have not been in harmony with the truth.

Recently Spencer has expressed himself on this subject in the following vein: "the two great classes of vital actions called Physiology and Psychology are broadly distinguished in this, that while the one includes both simultaneous and successive changes the other includes successive changes only. The phenomena forming the subject matter of Physiology present themselves as an immense number of different series bound up together. Those

forming the subject matter of Psychology present themselves as but a single series. A glance at the many continuous actions constituting the life of the body at large, show that they are synchronous---that digestion, circulation, respiration, excretion, secretion, etc., in all their many subdivisions are going on at one time in mutual dependence. And the briefest introspection makes it clear that the actions constituting thought occur, not together, but one after another.<sup>1</sup> Spencer restricts his comparison to physiological and physical phenomena found in one and the same organism endowed with psychic life. If he had not done this, he would have been forced to admit that many psychic phenomena occur simultaneously, because there exists in the world more than one type of living being endowed with psychic life. However, even within the limit which he has assigned to it, the assertion advanced by him is not entirely true. Spencer himself is so far from misjudging this that he immediately refers to those species of lower animals, for example the radiata, in which a multiple psychic life goes on simultaneously. For this reason he thinks---but others will not admit it easily---that there is here little difference between psychic and physical life.<sup>2</sup> In addition he makes further concessions which reduce the

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<sup>1</sup>Principles of Psychology, 2nd ed., I, 395.

<sup>2</sup>Ibid., 397.

difference between physiological and psychic phenomena to a mere matter of degree. Furthermore, when we ask ourselves what it is that Spencer conceives as those physiological phenomena whose changes, in contrast to the changes of psychic phenomena, ought to occur simultaneously, it appears that he characterizes with this term not specifically physical phenomena, but the causes, which are in themselves unknown, of these phenomena. In fact, with respect to the physical phenomena which manifest themselves in sensation, it seems undeniable that they cannot modify themselves simultaneously, if the sensations themselves do not undergo simultaneous changes. In this way, therefore, we can hardly attain a distinguishing characteristic for the two classes of phenomena.

Others sought to see a characteristic of psychic life in the fact that consciousness can grasp simultaneously only one object at a time. They pointed to the remarkable case of the error that occurs in the determination of time. This error regularly appears in astronomical observations in which the simultaneous swing of the pendulum does not come into consciousness at the same time as the observed star touches the thread in the telescope.<sup>1</sup> Thus, supposedly psychic phenomena always follow each other, one at a time, in a simple series. However, it was certainly a mistake to

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<sup>1</sup>Cf. Bessel, Astronomische Beobachtungen, Section VIII (Königsberg, 1823.), introduction. Struve, Expedition Chronometriae, ect. (Petersbourg, 1844), p. 29.

generalize without further reflection from a case which implies such an extreme concentration of attention. Spencer says: "I find that there may sometimes be detected as many as five simultaneous series of nervous changes, which in various degrees rise into consciousness so far that we cannot call any of them unconscious. When walking, there is the locomotive series; there may be, under certain circumstances, a tactual series; there is very often (in myself at least) an auditory series, constituting some melody or fragment of melody which haunts me; and there is the visual series; all of which, subordinate to the dominant consciousness formed by some train of reflection, are continually crossing it and weaving themselves into it."<sup>1</sup> The same facts are reported by Hamilton, Condillac, and other psychologists on the basis of their experiences. Assuming, however, that it were true that all cases of perception were similar to that of the astronomer, should we not always have to acknowledge at least the fact that frequently we represent something and at the same time judge it or desire it? There would then still be a simultaneous plurality of psychic phenomena. Indeed, we could, with more reason, make the opposite assertion, namely, that very often many psychic phenomena are present in consciousness simultaneously, while there can never be more than one physical phenomenon at a time.

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<sup>1</sup>Ibid., 398. Drobisch likewise says that it is a "fact that many series of images can pass simultaneously through consciousness, but, as it were, at different levels of depth."



In what exclusive sense, then, can we perhaps say that a psychic phenomenon always appears by itself, while many physical phenomena can manifest themselves at the same time? We can do this insofar as the whole multiplicity of psychic phenomena, which appear to us in our inner perception, always appear as a unity, while the same is not true of the physical phenomena which we grasp simultaneously through the so-called external perception. As happens frequently in other cases, so here, too, unity is confused by many psychologists with simplicity; as a result they have maintained that they perceived themselves in their inner consciousness as something simple. Others, in contesting with good reason the simplicity of this phenomenon, denied at the same time its unity. The former were not able to remain consistent because, as soon as they described their inner life, they found that they were mentioning a large variety of different elements, and the latter were forced to bear witness to the unity of psychic phenomena. They speak, as do others, of an "I" and not of a "we" and describe this sometimes as a "bundle" of phenomena, and at other times by other names which characterize the fusion into an inner unity. When we perceive simultaneously color, sound, warmth, odor, nothing prevents us from assigning each one to a particular thing. On the other hand, we are forced to take the multiplicity of the various acts of sensing, such as seeing, hearing, experiencing warmth and smelling, and the simultaneous acts of willing and feeling and reflecting, as well as the inner perception which provides us with the knowledge of all those, as partial phenomena of one single phe-

nomenon in which they are contained, and as one single unified reality. We shall discuss in detail later on what constitutes the basis for this necessity. At that time we shall also present several other points pertaining to the same subject. The question under discussion, in fact, is nothing else than the so-called problem of the unity of consciousness, one of the most important, but still contested, facts of psychology.

9. Let us, in conclusion, summarize the results of the discussion about the difference between psychic and physical phenomena. First of all, we illustrated the specific nature of the two classes by means of examples. We then defined psychic phenomena as images or as phenomena which are based upon images, all the other phenomena being physical phenomena. Next we spoke of extension, which psychologists have asserted as the specific characteristic of all physical phenomena, while all psychic phenomena are supposed to be unextended. This assertion, however, ran into contradictions which could only be clarified by later investigations. All that can be determined now is that all psychic phenomena really appear without extension. Further we found that the intentional in-existence, the relation to something as an object, is a distinguishing characteristic of all psychic phenomena. No physical phenomena shows anything similar. We went on to define psychic phenomena as the exclusive object of inner perception; they alone, therefore, are perceived with direct evidence. In the strict sense of the word, they alone are perceived. On this basis we proceeded to define

them as the only phenomena which, besides the intentional existence, possess also a real existence. Finally, we emphasized as a distinguishing characteristic the fact that the psychic phenomena which we perceive, in spite of all their multiplicity, always appear to us as a unity, while physical phenomena, which we perceive at the same time, do not all appear in the same way as partial phenomena of one single phenomenon.

The feature which best characterizes psychic phenomena is undoubtedly their intentional in-existence. By adding to it the other characteristics listed above, we may now consider that psychic phenomena are clearly defined in contrast to physical phenomena.

Our explanations of psychic and physical phenomena cannot fail to place in a clearer light our earlier definitions of psychology and natural science. In fact, we have stated that one is the science of psychic phenomena, and the other the science of physical phenomena. It is now easy to see that both definitions implicitly include certain limitations.

This is especially true of the definition of the natural sciences. These sciences do not deal with all physical phenomena, but only with those which appear in sensation, and as such do not take into account the phenomena of imagination. And even in regard to the former they only determine their laws insofar as they depend on the physical stimulation of the sense organs. We could express the scientific task of the natural science by saying that they are those sciences which seek to explain the succession

of physical phenomena connected with normal and pure sensations (that is sensations which are not influenced by special psychic conditions and processes) on the basis of the assumption of the influence on our sense organs of a world which is extended in three dimensions in space and flows in one direction in time.<sup>1</sup> Without explaining the absolute nature of this world, these sciences would limit themselves to ascribe to it forces capable of producing sensations and of exerting a reciprocal influence upon their action, and to determine for these forces the laws of co-existence and succession. Through these laws they would then establish indirectly the laws of succession of the physical phenomena of sensations, if, through scientific abstraction from the concomitant psychic conditions, we admit that they manifest themselves in a pure state and without alteration of sensibility. Such is therefore, the somewhat complicated interpretation which must be given to the expression "science of physical phenomena" if we want to identify it with natural science.<sup>2</sup>

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<sup>1</sup>Cf. Ueberweg (System der Logik). The conception of this author cannot be accepted in all its aspects. In particular, he is wrong when he asserts that the world of external causes is extended in space and time, instead of saying that it is extended in a way which appears spatial and temporal.

<sup>2</sup>This explanation does not coincide entirely with Kant's premises, but it approaches as far as possible his explanation. In a certain sense it comes nearer to J. S. Mill's views in his book against Hamilton (ch. 11), without however agreeing with it in all the essential aspects. What Mill calls "the permanent possibilities of sensation," is closely related to what we have called forces. The relationship of our conception with, as well as its essential departure from, Ueberweg's conception was already mentioned in the previous note.

We have nevertheless seen how the expression "physical phenomenon" is sometimes erroneously applied to the above mentioned forces. And since normally the object of a science is characterized as that object of which such a science determines directly and expressly the laws, I think I am not mistaken if I assume that the definition of natural science as the science of physical phenomena is frequently connected with the concept of forces belonging to a world extended in space and flowing in time; forces which, through their influence on the sense organs, arouse sensations and mutually influence each other in their action, and of which natural science investigates the laws of co-existence and succession. If these forces are considered as the object of natural science, it follows that this science has for its object something that really and truly exists. This could, of course, also be attained if natural science were defined as the science of sensations, adding implicitly the same restriction which we have just discussed. Indeed, the reason why the expression "physical phenomenon" is preferred stems probably from the fact that certain psychologists have thought that the external causes of sensations correspond to the physical phenomena which occur in them, either in all respects, according to the original point of view, or at least, according to the opinion of certain authors at the present time, in respect to three-dimensional extension. It is clear that the otherwise improper expression "external perception" stems from this conception. It must be added, however, that the act of sensing, besides the intentional in-existence of the physical phenomenon,

shows other characteristics with which the natural scientist is not at all concerned, since they do not enable sensation to give us any information about the particular relations which govern the external world.

In respect to the definition of psychology, it might first seem as if the concept of psychic phenomena would rather have to be broadened than narrowed, both because the physical phenomena of imagination fall within its scope at least as much as psychic phenomena as previously defined, and because the phenomena which occur in sensation cannot be disregarded in the theory of sensation. It is obvious, however, that they are taken into account only as the content of psychic phenomena when we describe the specific characteristic of the latter. The same is true of all psychic phenomena which have a purely phenomenological existence. As the proper object of psychology we must consider only psychic phenomena in the sense of real states. Consequently, it is in reference to these phenomena exclusively that we say that psychology is the science of psychic phenomena.

CHAPTER II  
ON INNER CONSCIOUSNESS<sup>1</sup>

1. Disputes concerning the particular concept which is to apply to a term are not always useless verbal contentions. Sometimes it is a question of establishing the common meaning from which it is always precarious to depart. Frequently, however, the problem is to discover the natural boundaries of a homogeneous class.

An obvious instance of the latter is the dispute about the meaning of the term "consciousness." The survey of the different uses of this term by Bain,<sup>2</sup> in England, and Herwicz,<sup>3</sup> in Germany, shows beyond any doubt that there is no generally accepted and specific meaning connected with it. Often we understand by it the recall of our own former acts, especially if they were of a moral nature, as when we say: I am not aware of any fault. Again, we denote by it every kind of immediate knowledge of our own psychic acts, especially the perception which accompanies present psychic acts.

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<sup>1</sup>Just as we call "inner" perception the perception of a psychic activity which is actually present in us, we here call "inner" consciousness the consciousness which is directed upon it.

<sup>2</sup>Mental and Moral Science, Append., p. 93.

<sup>3</sup>Psych. Anal., I, 211 ff.

In addition, we use this term with regard to external perception, for example, when we say of a man who is awaking from sleep or from a fainting spell that he has regained consciousness. Finally, we call consciousness not only perception and recognition, but also every image. Indeed, if something appears in our imagination, we say that it appears in consciousness. Some have characterized every psychic act as consciousness, be it an image, a cognition, an erroneous assumption, a feeling, an act of will or any other kind of psychic phenomena. In particular, this meaning seems to be attached to this term by psychologists (of course not by all) when they speak of the unity of consciousness, i.e., of a unity of co-existing psychic phenomena.

We must agree to a definite use of the term, lest it should render us ill service. If we wanted to lay stress on the origin of the term, we would undoubtedly have to restrict it to cognitive phenomena, either to all or to some of them. This is obviously of lesser importance, since actually it often happens without detriment that words are estranged from their original meaning. It is obviously much more expedient to use this term in such a way that it denotes an important class of phenomena, especially when a suitable name for it is lacking and thereby a felt gap is filled.<sup>1</sup> For this reason, therefore, I prefer to use it as synonymous with psychic phe-

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<sup>1</sup>Cf. the remark of Herbart, Lehrb. zur Psychol., I, ch. 2, 17, and Psychol. als Wissenschaft, I, Section II, ch. 2, 48.



nomenon or psychic act. On the one hand, the constant use of such a compound designation would be cumbersome, and on the other the term "consciousness," since it indicates an object the knowledge of which is consciousness, seems to be appropriate to characterize psychic phenomena according to their specific difference, i.e., the property of the intentional in-existence of an object, for which we are likewise in want of a common name.

2. We have seen that no psychic phenomenon exists which is not, in the sense indicated above, consciousness of an object. However, another question arises, namely, whether there exists any psychic phenomenon which is not an object of any consciousness. All psychic phenomena are consciousness; but are all psychic phenomena conscious or are there perhaps also unconscious psychic acts?

Many philosophers deny the existence of unconscious psychic acts. To admit an unconscious consciousness seems to them absurd. Even eminent psychologists, e.g., Locke and J. S. Mill, considered it a direct contradiction. Anyone who pays attention to the preceding definitions, however, will hardly think so. He will realize that the question of whether there is an unconscious consciousness is not ridiculous, as would be the question of whether there is a non-red redness. An unconscious consciousness is no more of a contradiction of attributes than an unseen vision.<sup>1</sup>

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<sup>1</sup>We use the term "unconscious" in a twofold sense: first, in an active sense, speaking of that which is not conscious of a thing, secondly, in a passive sense, speaking of a thing of which we are not conscious. In the first sense, the expression "unconscious consciousness" would be a contradiction, but not in the second. It is in the latter sense that the term "un-

Most laymen in psychology, however, will immediately oppose the acceptance of an unconscious consciousness, independently from any false analogies associated with this expression. Indeed, a few thousand years had to pass before there appeared a philosopher who taught such a thesis. Philosophers were undoubtedly well familiar with the fact that we can possess a store of acquired knowledges without thinking about them. But they rightly conceived the latter as dispositions to certain acts of thinking, just as they conceived the acquired character as a disposition to certain emotions and to certain activities of the will, but not as cognition and consciousness. One of the first men who have taught that there is an unconscious consciousness is Thomas Aquinas.<sup>1</sup> Later on, Leibnitz spoke of "perceptiones sine apperceptione seu conscientia," "perceptiones insensibiles,"<sup>2</sup> and Kant followed his example. Recently, the theory of unconscious psychic phenomena finds numerous representatives among men who in other respects do not expouse the same views. The elder Mill, for example, states that there are sensations of which we are not conscious on account of habitual inattention. Hamilton teaches that the train of our ideas is often connected only by intermediate steps of which we are not conscious. Lewes likewise believes that many psychic acts take place without consciousness. Maudsley considers the ex-

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conscious" is used here.

<sup>1</sup> Cf. further on in this chapter, 7.

<sup>2</sup> Nouveaux Essais, II, 1. Monadologie, 14. Principes de la nature et de la grace, 4.

istence of an unconscious psychic activity as a proven fact, and makes it one of the principal foundations of his physiological method. Herbart speaks of images of which we are not conscious, and Beneke believes that only those images which possess a higher degree of intensity are accompanied by consciousness. Fechner, too, says that psychology cannot ignore unconscious sensations and images. Wundt,<sup>1</sup> Helmholtz, Zollner and others assert that there are unconscious inferences. Ulrichi advances a whole series of arguments in support of his claim that not only sensations, but also other psychic acts, such as love and desire, often are executed unconsciously. And Von Hartmann has worked out a complete "Philosophy of the Unconscious."

Nevertheless, however, great the number of those who speak of unconscious psychic phenomena has become, their theory is still far from having attained general recognition. Neither has Lotze adopted it, nor have the famous English psychologists A. Bain and H. Spencer rallied to it. Even J. S. Mill, who generally expresses great respect toward the opinions of his father, has not refrained from opposing his doctrine on this issue. Moreover, among those who assert the existence of unconscious images, there are many who uphold them only because they give a different meaning to these terms. Fechner, for example, speaks of unconscious sensations and images, but gives the terms sensation and image a different meaning

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<sup>1</sup>At least in his early work: Vorlesungen über Menschen - und Tierseele. Some passages of his Physiol. Psychologie, as it stands at the present time, seem to indicate that he has retreated from the acceptance of unconscious psychic activities.

from the one we ascribe to them. This is so much so that he does not mean by them any psychic phenomenon at all. According to him, all psychic phenomena are conscious, and, therefore, with regard to this matter, he is an opponent of the new conception.<sup>1</sup> By using the term consciousness in a different sense, Ulrich likewise denies any unconscious psychic act according to our meaning.<sup>2</sup> We might even say that Hartmann also denotes by the term consciousness something different from what we hold. In fact, he defines consciousness as "the emancipation of reason from the will and the opposition of the will against this emancipation," as "the bewilderment of the will over the existence of reason, which existence the will does not want, but which, nevertheless, is sensibly present." This definition, if it actually

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<sup>1</sup>This is clearly shown in a passage of his Psychophysik (II, 438): "Psychology cannot abstract from unconscious sensations and images. As a matter of fact, it cannot even abstract from the effects of unconscious sensations and images. In what way, however, can a thing which does not exist produce any effect? Or in what manner does an unconscious sensation or image differ from a sensation or image which we do not have at all?" In answer to the first question, Fechner states that there is really no sensation but something with which sensation stands in a functional relationship. "Sensations, images have, of course, ceased to exist as real in the state of unconsciousness, insofar as we consider them apart from their substructure. Nevertheless, something persists within us, i. e., the psychophysical activity of which they are a function, and which makes possible the re-appearance of sensation, etc."

<sup>2</sup>In Gott und der Mensch, I, 283, he says that "in general we have an immediate feeling of our inner states, processes, impulses and activities," and that there is no doubt "that this feeling accompanies all sensory impressions (perceptions), even those which are most commonplace," that in this way "we also feel what we see, hear, taste, etc."

does not refer to something purely imaginary, undoubtedly seems to bear upon something different from what we called consciousness.<sup>1</sup> The arguments which he advances, however, at least show that he is a defender of unconscious psychic activities in the sense in which we speak of them.

The disagreement of psychologists on this point cannot surprise us, since we encountered it in other respects at every turn of our investigation. This disagreement, however, does not provide any reasonable argument that truth cannot be known with certainty. On the contrary, the particular nature of the question is such that many would believe that the impossibility of an answer to it is self-evident, and, therefore, that it can be an object of ingenious discussions, but not of serious scientific investigations. In fact, it is self-evident and necessary that there cannot be any unconscious image in the domain of our experience, even if many such images should exist in us; otherwise, they would not be unconscious. It would seem, therefore, that one cannot appeal to experience as proof against them. For the same reason, however, experience can just as little bear evidence for their existence. In default of experience, therefore, how can we settle this question?

In answer to this objection, the defenders of an unconscious consciousness have rightly maintained that what cannot be experienced directly can

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<sup>1</sup>Phil. d. Unbew., 2nd ed., p. 366.

perhaps be inferred indirectly from facts of experience.<sup>1</sup> They have not neglected to gather such facts, and to offer a great variety of arguments as proof of their assertion.

3. There are four different paths which could be followed here with a certain hope for success.

First, we could try to prove that certain facts given in experience demand the hypothesis of an unconscious psychic phenomenon as their cause.

Secondly, we could attempt to prove that a fact given in experience presupposes as an effect an unconscious psychic phenomenon, whereas none appears in consciousness.

Thirdly, we could try to show that in conscious psychic phenomena the strength of the concomitant consciousness is a function of their own strength, and that, because of this relationship, in certain cases in which the latter is a positive magnitude, the former must be deprived of any positive value.

Finally, we could attempt to prove that the hypothesis that each psychic phenomenon is an object of a psychic phenomenon leads to an endless complication of psychic states, which is both intrinsically impossible and contrary to experience.

4. The path which was, and still is, followed most frequently is the first. Usually, however, not enough attention has been paid to the specific conditions under which this path can lead to the goal. In order to be able

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<sup>1</sup>Cf. Kant, Anthropol., 5.

to draw any conclusion concerning an unconscious psychic phenomenon taken as a cause from a fact taken as an effect, it is necessary first of all that the fact itself be sufficiently ascertained. This is the first condition. For this reason alone, the attempts which are based on the phenomena of the so-called clairvoyance, presentiment, premonition, etc., can only have a doubtful value. Hartmann himself who refers to these phenomena<sup>1</sup> is fully aware of the fact that the starting point of the proof cannot inspire great confidence. Therefore, we shall be able to by-pass these arguments entirely. To be sure, Maudsley tells us about accomplishments of geniuses<sup>2</sup>, which are not the product of conscious thinking. These facts, however, are not sufficiently certain to be used as a basis for a valid argument. Geniuses are even more rare than somnambulists. Moreover, the manner in which some of them, for example Newton, reported their most important discoveries clearly shows that these discoveries have not been the product of unconscious thinking. We follow them in their investigations and understand their success, without thereby admiring this success less. If other geniuses have not been able to give an account of their accomplishments in a similar way, is it more presumptuous to assume

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<sup>1</sup>Phil. d. Unbew., 2nd edit., p. 81 ff.

<sup>2</sup>Physiology and Pathology of the Soul, German trans. Bohm, 17 f., 32 f. Cf. above Book I, ch. 3, 6.

that they have forgotten the conscious steps of their discoveries, than to assume that unconscious thought processes have bridged the gap? Goethe, who undoubtedly can claim a place among geniuses, says in his Wilhelm Meister that an extraordinary talent is "only slightly different from an ordinary one." If there are unconscious psychic processes, therefore, it will be possible to discover them also in less rare cases.

There is a further condition. In the hypothesis of a psychic phenomenon of which we do not have any consciousness, the fact of experience can really be explained as an effect through a corresponding cause. To this end, it is necessary first of all to show through experience that conscious psychic phenomena have always involved similar consequences. Furthermore, it is necessary to assume that they have not involved at the same time other consequences which are missing in the case at hand, even though there is no reason to suppose that they have become associated with the concomitant consciousness which is lacking in this instance. Finally, it is necessary that unconscious psychic phenomena, to which the hypothesis appeals, do not contradict, in their course as well as in their other characteristics, the recognized laws of conscious psychic phenomena, so that eventual peculiarities can be sufficiently understood on the basis of the lack of the concomitant consciousness. Their course and other characteristics which they possess, naturally, cannot be perceived directly, but they will reveal themselves in their effects, just as the laws of the external world, the law of inertia, of gravitation, etc., manifest themselves in sensations



as their effects. In particular, therefore, we should not consider absurd the origin of psychic phenomena which are assumed to exist even though we have no consciousness of them.

These conditions will be especially peremptory if, as happens almost invariably, the so-called unconscious psychic activities are considered homogeneous with those that are conscious. We can also say that by and large those who, on the basis of facts of experience, have inferred unconscious psychic acts as their cause, usually do not defy openly such conditions. The opposite is true only of individual thinkers, particularly Hartmann. This author, furthermore, differs from the majority of the proponents of unconscious psychic acts, insofar as he considers these acts as heterogeneous as compared to conscious acts, indeed, as deviating from them in the most essential respects. It is obvious that those who adhere to this view weaken the hypothesis of unconscious psychic acts from the very beginning. Many investigators, whose views on logic agree with those of J. S. Mill,<sup>1</sup> will reject this hypothesis in this form without much ado as unscientific because it does not make use of a vera causa as a principle of explanation. Reasoning by analogy, undoubtedly, loses power to the degree to which the similarity of the assumed cause with the observed cause diminishes. In this respect, therefore, the first divergent definition already represents a drawback; and every new divergence, which does

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<sup>1</sup>System of Logic, Book III.

not stem from the one which precedes it as a necessary conclusion, cannot but affect considerably, by reason of the increasing complexity, the probability of the hypothesis. Moreover, I believe that we cannot reject the hypothesis under discussion as a gratuitous and arbitrary fiction, provided that it fulfills, to the degree to which they remain valid, the conditions mentioned above, or other equivalent conditions. Even when, from the phenomena of our sensations, we conclude to a spatially extended world as their cause, we assume something that was never found as an immediate fact of experience, and yet the conclusion is not perhaps unjustified. But why not? Only because, by connecting the hypothesis of such a world with the hypothesis of certain general laws which govern it, we are able to understand and even to predict the otherwise unintelligible succession of our sensory phenomena in their correlations. Thus it will also be necessary here to set forth the laws of these alleged unconscious phenomena and to verify, through a unified explanation, a whole mass of facts of experience which otherwise would remain unexplained, and through prediction, other facts which nobody would anticipate. Furthermore, since the alleged unconscious phenomena are considered, if not homogeneous with conscious phenomena, at least analogous with them to a certain degree (otherwise they would unjustly be classified among psychic activities), it will be necessary to prove that the characteristics which they have in common with conscious facts are not violated, and in general that their assumption does

not involve any contradictory assertion.

These conditions have not been met by Hartmann anymore than have the previous ones. On the contrary, at the very moment that we would expect to find the laws for unconscious psychic phenomena,<sup>1</sup> we see that these phenomena are not psychic phenomena at all. They resolve themselves into an eternal unconscious, into a single,<sup>2</sup> omnipresent, omniscient,<sup>3</sup> and all-wise being. The place is taken by a God who in order to fully deserve this name would only need a consciousness,<sup>4</sup> even though he is also affected in other respects by some serious contradictions. He is being-in-itself,<sup>5</sup> he knows being-in-itself,<sup>6</sup> but he does not know himself. He is above all time,<sup>7</sup> even though he not only acts, but also suffers, in time.<sup>8</sup> He never grows weary,<sup>9</sup>

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<sup>1</sup>Phil. d. Unbew., 2nd ed., p. 334 ff.

<sup>2</sup>Ibid., p. 473 ff.

<sup>3</sup>Ibid., p. 552 ff.

<sup>4</sup>Ibid., p. 486 ff.

<sup>5</sup>Ibid., p. 480. Nothing exists outside the Unconscious (ibid., p. 720)

<sup>6</sup>Ibid., p. 337.

<sup>7</sup>Ibid., p. 338.

<sup>8</sup>Ibid., p. 472, where, for example, Hartmann speaks of a "reciprocal action of certain material parts of the organic individual with the Unconscious".

<sup>9</sup>Ibid., p. 336.

and yet he goes to great length to spare himself toil as much as possible.<sup>1</sup> The devices he contrives to this end are, of course, always very imperfect, so that he has no alternative but to remedy forever this whole situation by direct intervention.<sup>2</sup> However, he does not always do this. In fact, contrary to his usual behavior, he even tolerates the failures of goals which should undoubtedly be attained by his direct "all-wise" intervention,<sup>3</sup> and allows the mechanisms created by him for preservation to lead to destruction.<sup>4</sup> In one word, he is playing wholly the role of a deus ex machina, formerly attributed by Plato and Aristotle to the Nous of Anaxagoras, which is always at hand as a stopgap wherever the mechanistic explanation fails.<sup>5</sup> Anyone who, to some degree at least is a rigorous thinker will reject as inadmissible such a hypothetical non-entity, even if he does not accept the limits assigned by Mill to scientific hypotheses. There cannot be any doubt, therefore, that all the arguments which Hartmann advances to support the

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<sup>1</sup>Ibid., p. 554.

<sup>2</sup>Ibid., p. 555.

<sup>3</sup>Ibid., p. 339 f.

<sup>4</sup>Ibid., p. 129.

<sup>5</sup>Cf. for example, in order to find striking illustrations in this connection, the chapter which deals with the increasing evolution of the organic life on earth.

hypothesis of unconscious psychic phenomena do not satisfy, in the form in which he offers them, the second condition. He has not proved that the facts of experience, from which the unconscious psychic activity is to be inferred, would find a real explanation in such a hypothesis.

Finally, a third condition for the validity of the conclusion concerning unconscious psychic phenomena as the cause of certain facts of experience would consist in the proof that the phenomena under discussion cannot be understood, at least not without the greatest improbability, on the basis of other hypotheses. Even if it is certain that in some cases unconscious psychic phenomena involve similar phenomena as effects, this fact alone does not prove that these effects do not stem from other causes. It is not true that similar effects have always similar causes. Very often substances which are very different cannot be distinguished from one another on the basis of color. In this instance the effect is the same, but the causes are nevertheless different from one another. It was mainly because Bain disregarded this possibility that his inductive experiments attained so few successful results. What is possible in the physical field, however, is also possible in the psychological field. In fact, starting from different premises, often we arrive at the same conclusion. Aristotle himself has recognized and emphasized this point. This great thinker has also pointed out that judgments, which are at first inferred in the proper sense of the term, are subsequently passed immediately on the basis of experience or (to use another expression which avoids any misunderstanding) on the strength of

habit that certain principles, which are frequently applied, but which are far from being self-evident, appear to us as immediately evident, insofar as they thrust themselves upon us with an almost irresistible might. Likewise, it is perhaps because of habit alone that, when placed in similar situations, animals anticipate similar effects. What is here an acquired disposition, however, could be in other cases, an inborn disposition to immediate judgments.<sup>1</sup> In these cases, therefore, we would be wrong in speaking of unconscious conclusions, i.e., conclusions, the premises of which have remained unconscious.

To what extent have these different attempts to prove the existence of unconscious psychic phenomena complied with this third condition? I do not hesitate to say that none has adequately met it, and I want to prove this in detail with respect to the most important ones.

Like Hamilton,<sup>2</sup> many philosophers have deduced the hypothesis of unconscious ideas from the fact that, when an earlier train of ideas is recalled, sometimes a whole series of intermediate steps appear to be missing. This fact would undoubtedly be reconciled with the laws of association, if we would assume that the intermediate steps in question have played their mediating role, but have not appeared in consciousness. Neither Hamilton nor others, however, have shown, or even tried to show, that this is the only

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<sup>1</sup>A so-called "instinctive" judgment.

<sup>2</sup>Lect. on Metaph., I, 352 f.

possible way of explanation. Actually, this is by no means the case. In his critique of Hamilton,<sup>1</sup> J. S. Mill was able to offer two other explanations without any difficulty. In addition, in our discussion of the association of ideas we shall see that the number of these possible hypotheses, of which sometimes one and sometimes another appears to be the most probable, can be enlarged considerably.

With regard to the phenomena of the blind spot, of which we shall also have to speak later, Lange remarks<sup>2</sup> that the eye infers the existence of the color which seemingly fills this spot, and that through further and properly performed experiments it discovers its deception. In this case, therefore, we would have an unconscious act of thinking, for we are in no way conscious of the intermediate inferential processes.<sup>3</sup> I leave undecided whether the

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<sup>1</sup>Examination of Sir Hamilton's Philos., ch. 15; and James Mill, Anal. of the Phenom. of the Human Mind, 2nd ed., note 34, I. 352 ff.

<sup>2</sup>Gesch. d. Material., 1st ed., p. 494 ff. Cf. also E. Weber, Über den Raumsinn und die Empfindungskreise in der Haut und im Auge (Report of the Royal Saxon Society of Sciences, 1852, p. 158).

<sup>3</sup>It is not quite clear whether Lange really wants to admit an intermediate process similar to unconscious reasoning. On p. 494 he says: "To some extent the eye draws a conclusion of probability, a conclusion from experience, an incomplete induction." On p. 495 he says: "To some extent the eye becomes conscious that nothing can be seen in the blind spot, and corrects its original false conclusion." In the very same place, however, he speaks of this process as a process which occurs in the purely sensory field and which is "essentially of the same nature as rational inferences."

explanation given by Lange satisfied the first condition that it be possible in all respects, even though there are many reasons which make us doubt it. In any case, Lange has failed to exclude the possibility of any other hypothesis. If he had paid attention to the laws of association, he would have found, as we shall find later on, that these laws make it possible to understand easily the appearance of this phenomenon without unconscious false inference, as well as its disappearance without unconscious correction.

Helmholtz<sup>1</sup> and Zöllner<sup>2</sup> have been guilty of the same omission. Without exception, the same is true of all the other investigators, no matter how competent, who traced back to unconscious inferences the spatial images which we connect with perceived colors on the basis of previous experience, as well as a whole series of other optical phenomena. They never took into account the means which even today psychology offers in order to do justice to the facts without such unconscious intermediate terms. It would be inappropriate to deal in detail with these means at this point. Subsequent discussions will familiarize us with them. For the present, it is sufficient to have emphasized that the alleged consequences from unconscious inferences cannot furnish any proof for the existence of an unconscious psychic activity, as long as the impossibility or extreme improbability of any other conception

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<sup>1</sup>Physiol. Optik., p. 430, p. 449, and other passages

<sup>2</sup>Über die Natur der Kometen, p. 378 ff.



is not established, and that until now nobody has complied with this condition. This is true in the case of the above mentioned optical phenomena. It is also true of the argument for an unconscious induction of the belief in the existence of the external world which we find in the earliest history of mankind.<sup>1</sup> Likewise, it is true of the attempts that were made to conceive every recall of a thought as a consequence of unconscious processes which are just as protracted and complicated as those that sometimes we come across when we try to recall and, progressing from one thought to another, trace back a previous experience. Hartmann<sup>2</sup> has done this and also Maudsley<sup>3</sup> seems to be of this opinion. The latter conceives every thought which emerges in us without being the result of deliberate and voluntary searching as a product of an unconscious psychic activity. It is on the basis of this conception alone that he arrives at the conclusion that "the most important part of mental action, the essential process on which thinking depends, is unconscious mental activity."<sup>4</sup>

In addition, Lewes, Maudsley and Ulrich appeal to other facts in support of unconscious psychic phenomena. Ulrich, as we have said, simply gives another meaning to the term unconscious, while Lewes and Maudsley understand

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<sup>1</sup>Cf. Hartmann, loc. cit., p. 286 ff.

<sup>2</sup>Ibid., p. 25.

<sup>3</sup>Physiology and Pathology of the Soul, p. 16 ff.

<sup>4</sup>Ibid., p. 19.

it in the same sense as we do. Indeed, on the basis of these facts, we could be inclined to assume that such activities exist. Even though we have already spoken of these phenomena in our investigation on the method of psychology, we want to return to this issue once again at this point.

It happens frequently that, being absorbed in some thought, we do not then pay attention to our environment. In these instances, even though the environment does not seem to awaken in us any sensation, the results show that we have had sensations. Maudsley says: "Let anyone take careful note of his dreams, he will find that many of the seemingly unfamiliar things with which his mind is then occupied, and which appear to be new and strange productions, are traceable to the unconscious appropriations of the day. There are other stories on record like that well-known one which Coleridge quotes of the servant girl who, in the ravings of fever, repeated long passages in the Hebrew language, which she did not understand, and could not repeat when well, but which, when living with a Clergyman, she had heard him read aloud. The remarkable memories of certain idiots, who, much deficient in or nearly destitute of intelligence, will repeat the longest stories with the greatest accuracy, testify also to this unconscious cerebral action; and the way in which the excitement of a great sorrow or some other cause, such as the last flicker of departing life, will sometimes call forth in idiots manifestations of mind of which they always seemed incapable, renders it certain that much is unconsciously taken up by them

which cannot be uttered, but which leaves its relics in the mind."<sup>1</sup>

Ulrici gives some other significant examples of related phenomena. "It happens very often," he says, "that somebody speaks to us, but we are absent-minded and, therefore, at the moment do not know what he is saying. A moment later, however, we re-orient ourselves, and then what we have heard comes to consciousness. We pass through a street without paying attention to the sign-boards which we see, to the names and advertisements which are found on them, and are not able to mention any of these names immediately afterwards. Nevertheless, perhaps several days later, if we happen to come across one of these names elsewhere, we remember that we have read it on a sign-board. Consequently, we must have had as complete a visual sensation as any other of which we are directly conscious; otherwise, we obviously could not remember it. Likewise, we often remember several days later that we have made a mistake while writing or speaking, of which we were not aware when we were writing. Even in these cases, I must have seen the misspelled word; I must have had a complete visual sensation of it. However, since while I was writing I paid attention only to the thoughts to be written and to the connection of the words expressing them, I did not notice the slip of the pen, i.e., the error of orthography. Nevertheless, the sensory impression became an integral part of myself, and when afterwards I did no longer reflect upon the thoughts to be written, but on the words that were actually

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<sup>1</sup> Ibid., p. 14.

written, I became conscious of the given sensory change produced by the misspelled words."<sup>1</sup>

It is easy to recognize that these and similar arguments are inadequate to establish the existence of an unconscious psychic activity as we understand it. The hypothesis of unconscious psychic phenomena is not the only hypothesis on the basis of which these phenomena can be explained. In the case of the first and third example taken from Ulrich it is sufficient to assume that a sensation, accompanied by consciousness when it first occurred, is subsequently renewed in memory, and that upon this appearance certain associations and other psychic activities, which some particular circumstances have inhibited the first time, become connected with this phenomenon. In one example, we did not connect the proper meaning with the words we heard; in the other example, we saw the misspelled word, but not reflect in any way upon its conformity with the rules of orthography.<sup>2</sup> The case of the signboards is even simpler. It is based solely on the fact that not only the first reception of an impression in memory, but also its actual renewal are connected with certain conditions which are missing in one case, but are present in the other. The subsequent similar phenomenon aroused the

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<sup>1</sup>Gott und der Mensch, I, 286.

<sup>2</sup>There is a difference between a simple "slip of the pen" and the inattention to "the error of orthography."

earlier one according to a well known law of association of ideas, which had obviously not been effective up to then because the preliminary condition was missing.

The same thing is true of the first example presented by Maudsley. Certain words, which the servant girl of whom he speaks could not remember at one time, came back to her memory spontaneously at another time, obviously under circumstances which contained the preliminary conditions of association, but which were missing in the first case. Even though these circumstances cannot be subjected to our analysis, we must assume that they were so favorable to the association in question that they compensated for the disadvantage of a relatively poor preparation. From the fact that the servant girl did not understand the sense of the words which she was hearing we certainly cannot conclude that she heard without being conscious of hearing. In the same way, it becomes evident that the phenomena of good memory, which appear in idiots, either during or after their abnormal condition, do not allow us to draw any conclusion concerning the existence of unconscious psychic phenomena.<sup>1</sup>

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<sup>1</sup>In the same work, p. 19ff., Maudsley speaks of the unconscious influence of certain internal stimuli, i.e., of the unconscious psychic activity stemming from the influence of internal organs, e.g., the action of the sexual organs upon the brain. This matter can be settled in an analogous way on the basis of our previous remarks concerning the existence of an unconscious influence of external stimuli. The influences of these organs produce conscious sensations with which are linked, in the special case under discussion, vivid emotions that subsequently exert a very strong influence upon the whole psychic life.

Lewes cites cases which are not altogether rare, such as when someone falls asleep during the sermon and awakens at its sudden termination. According to Lewes, this would prove that he has had auditory sensations, but un-

Speaking of the feelings of affection and love, we sometimes say that we become suddenly aware of them, after having nourished them for a long time.<sup>1</sup> The truth is that we were conscious of each individual act when we were performing it, but that we did not reflect upon it in a way that allowed us to recognize the similarity between the psychic phenomenon in question and those which are commonly designated by this term.

Often we also say that a certain individual does not know what he wants, because after desiring something for a long time, he is annoyed when he obtains it.<sup>2</sup> We overlook, however, that in his desire this person saw only the bright and not the dark side of the desired object, so that reality did not fulfill his expectation. Or it could also be that the very desire for change makes him want what is remote and shun what is present. In ad-

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consciously, for otherwise he should know what was spoken. The answer which we have given to the examples offered by Ulrici and Maudsley apply also to these cases. They prove that the sensation was present, but do not prove that it was unconsciously present.--Lewes also cites another case. One day in a restaurant he found a waiter who had fallen asleep in the midst of noise. In vain he called him by his first and last name. However, as soon as he uttered the word "waiter," he awoke. This entitles us to conclude that the waiter also heard the first calls, but not that such calls remained unconscious. The reason why one call awoke the waiter, while the others did not, was that such a call was connected with associations, not only of images, but also of feelings, which were deeply entrenched through habit, and which, therefore, in spite of the obstacles that were present in the sleeping condition, led to a powerful excitation of psychic activities. This explanation also applies to the case of Admiral Codrington who, when he was a naval service trainee, could be awakened from a deep sleep only by the word "signal" (Physiology of Common Life, II).

<sup>1</sup>Cf. Ulrici, loc. cit., p. 288.

<sup>2</sup>Cf. Hartmann, loc. cit., p. 216.

dition, there are undoubtedly other hypotheses which can adequately explain this fact.

It frequently happens that pure images or feelings, which are not accompanied by any conscious volition, produce bodily movements. Hartmann believed that he could infer from this fact the existence of unconscious volition, which is directed toward these movements, since it is the will which acts externally.<sup>1</sup> It is not by any means improbable, however, that such an effect is also connected with other phenomena.<sup>2</sup>

It would be tedious to offer other examples. Let me, therefore, add only one remark. Even if we had to admit in certain cases that we are unable to understand a phenomenon without the hypothesis of the influence of unconscious psychic phenomena, this proof would be without value as long as such inability can easily be explained on the basis of the imperfection of our knowledge of the domain to which this phenomenon belongs. Hartmann goes really too far when he asserts<sup>3</sup> that the mediation between the will and the movement which obeys it cannot possibly be a mechanical mediation; that this mediation, consequently, presupposes intermediate psychic phenomena

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<sup>1</sup>Cf. Ibid., p. 143.

<sup>2</sup>Hartmann's reasons for the opposite (loc. cit., p. 93) are a perfect example of an arbitrary a-priori speculation in striking contrast to the promise he made in the preface of following a scientific method.

<sup>3</sup>Loc. cit., p. 56.

which are unconscious, especially the unconscious image of the place of the corresponding motor nerve endings in the brain. No critical-minded physiologist will support this claim. We can prove that one part of this mediation is mechanical. The possibility of the proof ends only at the point where the field of cerebral physiology, which until now is quite inaccessible, begins. Likewise, as we have been repeatedly forced to confess, psychology itself is still in a very backward condition. It is, therefore, altogether correct to think that, through a deeper knowledge of psychic laws, it will be possible to trace back to conscious phenomena, as their sufficient cause, the phenomena which have been considered as a consequence of an unconscious psychic activity.

5. As we have said, the second path which could be followed to prove the existence of unconscious psychic acts consist in the inference of the effect from its cause. If a given fact involves a psychic phenomenon as a necessary effect, we are entitled, in the absence of a conscious phenomenon, to assume the existence of an unconscious phenomenon.

Also here, however, there are some conditions which cannot be overlooked. To begin with, we must exclude the possibility that the psychic phenomenon in question has actually appeared in consciousness, but then has been immediately forgotten. Furthermore, we must prove that there existed in this case a cause which was identical to that of other cases. Finally -- even though this point is implied in the preceding one--it is especially important to establish the basis of the proof, i.e., that the causes which



prevented the concomitant consciousness in this case, and which obviously were not present in the other cases, did not prevent also the psychic phenomenon, the existence of which is to be inferred, and, in general, that no special obstacle lay in the way of this phenomenon.

If we apply this criterion to the few proofs that have been advanced on the matter under discussion, we discover that none of them has been completely successful. We want to prove this point in detail.

When a wave strikes the seashore, we hear the noise of its surf, and are conscious of hearing. By contrast, when only one drop is set in motion, we think that we do not hear any noise. Nevertheless, it is said, we must assume that in this case, too, we have an auditory sensation, since the movement of the wave is a simultaneous movement of its single drops, so that the sensation of the rushing wave can only be composed of the auditory sensations produced by the drops. Thus, we hear, but our auditory sensation is unconscious.<sup>1</sup>

The inadequacy of this argument is obvious. It violates the second condition which we have established. The effect of a sum of forces is not only quantitatively, but very often also qualitatively, different from the

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<sup>1</sup>This argument goes back to Leibnitz. Indeed, we could say that even Zeno of Elea touched upon this problem, although he made use of this difficulty in a different sense (Commentary of Simplicius on Aristotle's Physics, VII, 5).

effect of the individual elements which compose it. If the temperature drops to just above zero degrees Celsius, it does not change water into ice either partially or to a smaller degree; if the temperature does not reach eighty degrees Celsius, it does not produce a gaseous condition which is quantitatively different from evaporation. Similarly, when a strong physical stimulus produces an auditory sensation, it does not follow that a weaker one necessarily results in an auditory phenomenon which is smaller only in terms of its intensity.

A similar remark applies to the following attempted demonstration. "We are not able," Ulrici says, "to perceive very small objects whose size does not amount to a twentieth part of a line... Nevertheless, these objects must necessarily give origin to a stimulation of the optic nerve and, consequently, to a sensory impression. Larger objects, in fact, become visible only because each smallest (by itself invisible) point of a shining colored surface sends into the eye a beam of light which affects the nerves distributed over the retina. The stronger, perceptible and conscious visual sensation, therefore, is composed, so to speak, of a multitude of weak, imperceptible sensory impressions."<sup>1</sup> In this form, the inference of unconscious sensations on the basis of the above mentioned reason is deprived of any value. Such an inference, however, could be formulated in a somewhat different manner. We could say that in many similar cases the intensity of the stimulation is

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<sup>1</sup>Gott und der Mensch, p. 294.

apparently sufficiently large to produce a sensation. If observed through the microscope, the invisible often becomes visible. Nevertheless, in passing through the refracting lens, the light stimulus is not strengthened; on the contrary, it is weakened. In addition, on account of the distribution of the stimulation on a larger surface, the stimulation of each individual point must be lessened. It is certain, therefore, that even without the help of the microscope we must notice a color phenomenon which is actually more vivid and only somewhat less extended, but which nevertheless does not become an object of consciousness.

Even in this form the argument does not satisfy the second condition. Even though the microscope does not increase the intensity of the efficient cause, it modifies it at least in some way. The causes, therefore, are not really identical. We are not entitled to say that, since the intensity of the stimulation was not smaller in one case than in the other, a sensation must have occurred. We can just as well think that the stimulation of the retina on a larger surface has brought about a necessary and previously absent preliminary condition of the sensation. Perhaps the lack of strength in this argument becomes more clear if we take into consideration the third condition. What reason could there be why we were not able to gain consciousness of the sensation which, as we are told, although more circumscribed as to space, instead of being less strong, is actually stronger? We are not able to advance any such reason, and perhaps it seems more difficult to understand how the limited stimulation of the retina should have hindered the formation

of consciousness in the hypothesis that there was a sensation, rather than having hindered the sensation itself.

Of greater importance seems to be the following fact. Helmholtz<sup>1</sup> reports that, in the so-called after-images, he often observed characteristics which he had not perceived while seeing the object. The same thing has often happened also to me, and everyone can easily verify the facts through his own experience. In this case the stimulation was obviously very intense, otherwise it would not have produced an after-image. Likewise, we cannot say that the retina has not been stimulated on a sufficiently extended surface, since the same circumstance would also have hindered the phenomenon in the after-image. It seems certain, therefore, that a sensation possessing the particular characteristics in question must have occurred. If, however, these characteristics have remained unnoticed, it seems that we have to assume that an unconscious image has occurred.

This argument is far from being established with absolute certainty. It does not even satisfy the first of the three conditions which we have indicated. Who, in fact, can vouch that the phenomenon in question was not actually accompanied by consciousness, but that it was forgotten immediately? Our subsequent discussion of the influence of attention on the formation of association will show that this hypothesis is entirely plausible. Furthermore, the second and third condition are not fulfilled. The external stimulation was, of course, sufficiently strong in itself and sufficiently ex-

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<sup>1</sup>Physiol. Optik, p. 337.

tended to produce a sensation. But were the necessary preliminary psychic conditions also present? Assuming that they were, how is it that a conscious sensation did not occur? Because, we are told, attention was fully concentrated on something else. Is it not possible, however, that this complete absorption by other objects has prevented just as easily the sensation itself, as it has our awareness of it? To this Ulrici replies that the after-image, being merely "the after-image of a definite original image, cannot possibly contain anything more or anything else than what is already contained in this original image, i.e., in the original sensory perception. The characteristics which we observe in the after-image must have existed, therefore, also in the original image with even greater strength and clearness than in the after-image."<sup>1</sup> It is easy to see that Ulrici's argument lacks all cogency, since its whole support rests upon the term "after-image." This term, in fact, cannot in any way mean that the after-image is simply a copy of a pre-existing model;<sup>2</sup> probably it was chosen only to indicate temporal succession. The after-image appears noticeably later than the beam of light which stimulated the retina. It is an established fact that the actual cause of the so-called after-image is not the previous sensation but the persistence of the previous physical stimulation or another physical

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<sup>1</sup>Loc. cit., p. 304, ibid., p. 285.

<sup>2</sup>When, after looking at a red surface, we see a green color, we cannot say that this is really a true copy.

process which follows it.<sup>1</sup> Let us assume that on account of a psychic obstacle the original physical stimulation has not produced any sensation. It may very well be, however, that this stimulation has persisted just as long and that its psychic consequences have not been less intense. Consequently, it is by no means impossible that we have a sensation of after-images or partial after-images, even though we have had no sensation at the time that the beam of light stimulated the retina.

6. We arrive at the third class of demonstrations that have been attempted. We said that the existence of unconscious psychic phenomena may also be considered ascertained, if one can prove that the consciousness of conscious psychic acts is a function of their own strength, and that it is because of this relationship that in some cases, in which the latter is a positive magnitude, the former may lack any positive value.

The hypothesis that the strength of the consciousness of psychic phenomena is a function of their strength is found, for example, in Benecke.<sup>2</sup> According to this author, consciousness occurs as soon as the intensity of an image reaches a certain level, and increases and decreases depending upon this intensity level. Nobody, however, will assert that Benecke or anyone else has offered a relatively satisfactory proof of the existence of a corre-

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<sup>1</sup>All physiologists agree on this point, even though there are many differences of opinion among them in other respects.

<sup>2</sup>Lehrb. d. Psychol., 2nd ed., p. 57.

sponding relation of dependence between the two intensities.<sup>1</sup> We may also assume that the inaccuracy of our psychological measures, of which we have spoken in our investigation of the method of psychology,<sup>2</sup> creates insurmountable obstacles to the exact determination of such a functional relation. Most people, however, tend to confuse the strength of conscious images and the strength of the representations of these images.

There exists a particular circumstance which actually seems to allow us to advance an exact and conclusive proof of an intensity relation in the case under discussion.

The intensity of the act of representing is always equal to the intensity with which the object that is represented manifests itself; in other words, it is equal to the phenomenon which constitutes the content of the act of representing. This may be considered self-evident. In fact, almost without exception, psychologists and physiologists either expressly assert it or tacitly presuppose it. Thus we saw above<sup>3</sup> that E. H. Weber and Fechner

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<sup>1</sup>In order to exclude any possible misunderstanding, I call attention once more to the fact that what Fechner calls an unconscious image is nothing else than a more or less insufficient disposition for an image which is connected with a certain physical process, insofar as this process, through an increase in its intensity, would be accompanied by an image in the proper sense of the term. The threshold below which Fechner attributes negative values to the consciousness of sensation is at the same time the threshold of the sensation itself as a real psychic act.

<sup>2</sup>Cf. above Book I, ch. 4, p. 105.

<sup>3</sup>Cf. Book I, ch. 4, p. 108.

assumed that the intensity of sensation is equal to the intensity with which the physical phenomenon appears in sensation. It is only on the basis of this condition that the law established by them is a psychological law.

If this is true, if the intensity of the act of representing is generally equal to the intensity of its content, it is clear that the intensity of the representation of an image must also be equal to the intensity with which this act manifests itself. It is simply a question of how the phenomenal intensity of our conscious images compares with their real intensity.

There cannot be any doubt in this respect. Both intensities must be equal, provided that inner perception is infallible. Perception can neither confuse seeing and hearing nor mistake a strong auditory sensation for a weak one or a weak for a strong one. Thus we arrive at the conclusion that the intensity of the representation of a conscious image is equal to the intensity of this image.

Indeed, we can establish a mathematical relationship between these two intensities, namely, the simple relationship of full equality. However, if this relation, which is the simplest of all possible functional relations, shows us that a change in the intensity of the concomitant image is the necessary consequence of every increase and decrease in the intensity of the concomitant psychic phenomenon, this does not prove in any way the existence of unconscious psychic acts. Rather, we shall have to draw the opposite conclusion: there is no unconscious psychic act. Wherever there exists a



psychic act with more or less intensity, it is necessary to attribute an equal intensity to the image which accompanies it and of which this act is the object. This seems to be the opinion of the great majority of psychologists. Even among those who verbally teach the opposite, there are some whose opposition disappears and is changed into full agreement as soon as we translate their statements into our own terminology.

We still have to examine, however, a fourth path which, according to some authors, proves not only the falsity, but also the absurdity, of the hypothesis that every psychic activity is a conscious activity. Before drawing our final conclusions, let us briefly examine these attempts at demonstration.

7. Hearing as an image of a sound is a psychic phenomenon; indeed, it is one of the simplest examples of psychic phenomena. Nevertheless, if all psychic phenomena are conscious, it does not seem to be possible without an infinite complication of psychic life.

First of all, if no psychic phenomenon is possible without a correlative consciousness, simultaneously with the image of a sound we have a representation of the image of this sound. We have, therefore, two essentially different images. If we call the image of a sound "hearing," we have in addition to the image of this sound an image of hearing, which is as different from hearing as hearing is from sound.

This process, however, does not end here. If every psychic phenomenon must be accompanied by consciousness, the image of hearing, just as the

image of sound, must also be accompanied by consciousness. Consequently, there must also exist a representation of the image of hearing. In the hearer, therefore, there are three images: an image of sound, an image of the act of hearing and a representation of the image of this act. This third image, however, cannot be the last one. Since it is conscious, it is represented, and in turn its image is also represented; briefly, the series will either be infinite or will terminate with an unconscious image. It follows that those who deny the existence of unconscious psychic phenomena must admit an infinite number of psychic activities in the simplest act of hearing.

It also seems evident that sound must be represented not only in the act of hearing but also in the concomitant image of this act. In addition, it will be represented once more, and consequently for the third time, in the representation of the image of hearing, while the act of hearing will only be represented for the second time. If this is the case, we have here a new reason for an infinite complication of psychic life, inasmuch as the infinite series of phenomena is not made up of equally simple phenomena, but of phenomena which become progressively more and more complex.

This hypothesis seems to be very doubtful; indeed, it is evidently absurd,<sup>1</sup> and no one will want to adhere to it. How can we, therefore, persist in the denial of unconscious psychic acts?

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<sup>1</sup>In recent times Herbart has touched upon these difficulties (Psychol. als Wissensch., Part II, Section II, ch. 5, 127; cf. ibid., Part I, Section I, ch. 2, 27). In antiquity Aristotle has emphasized them (De Anima, III, 2), but did not regard them as insurmountable.

If there does not exist an unconscious consciousness, there is only one hypothesis which seems to allow us to avoid the conclusion of an infinite complication of psychic life. This hypothesis assumes that the act of hearing and its object are one and the same phenomenon, insofar as the former is thought to be directed upon itself as its own object. Sound and hearing, therefore, would either be merely two names for one and the same phenomenon, or the difference in their meaning would perhaps consist only in the fact that the term sound is used to designate the external cause, which formerly was usually considered similar to the psychic phenomenon, and consequently was said to manifest itself in the act of hearing, whereas in reality it is not represented in this act.

Many English psychologists advocate such an opinion. In the previous chapter, we discussed a passage of A. Bain in which this philosopher fully identifies the act and the object of touch sensations, and indicates that the same relation of identity between the act and the object of the act applies to all the other types of sensory impressions. Certain remarks of J. S. Mill seem to betray this same view.<sup>1</sup> In my opinion, this conception does not seem to be true, and if it were true, it would not eliminate entirely the difficulty. I assert that it is not true because inner perception shows us with immediate evidence that hearing has a content which is different from itself, and which, in contradistinction from hearing, does not possess any

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<sup>1</sup>Both in his work on the philosophy of Hamilton and in his notes in connection with the Analysis of James Mill.

of the characteristics of psychic phenomena. Nobody, therefore, claims that the term sound refers to an act of hearing which exist outside of us, and which, through its action on the ear, would produce our hearing as its copy. Likewise, nobody means by it a force which produces hearing without being itself represented; otherwise we would not speak of sounds which appear in imagination. On the contrary, this term refers to the phenomenon which constitutes the immanent object of our hearing. This object, however, is different from the act of hearing. Accordingly, depending on whether or not we believe that it has a corresponding external cause, we believe that a sound exists or does not exist in the outside world.

The reason for the origin of this opinion, which so clearly contradicts inner experience and the judgment of every unprejudiced individual, seems to lie in the formerly held belief that conscious hearing gives us not only an image of sound in addition to the image of hearing, but also an immediate knowledge of the existence of sound in addition to the immediate knowledge of the existence of hearing. This belief that we perceive sound with the same evidence as hearing was subsequently recognized as false, since a sound never stands opposite to hearing as an external object which is perceptible by the ear. However, since hearing was conceived as knowing and the content of hearing as a real object, and since hearing alone appeared to be real, modern thinkers came to consider hearing as its own object. This was an error in the opposite direction. Even if in the act of hearing nothing else than hearing itself is perceived in the proper sense of the term, this

does not lessen the fact that something else besides hearing itself is present in the act of hearing and constitutes its content.

Furthermore, even if this interpretation were correct, it would still be easy to prove that it could not remove entirely the difficulty with which we are dealing. Granted that the act of hearing has nothing else than hearing itself for its content, nobody could apply the same hypothesis to other psychic acts, such as acts of memory and expectation, e.g., the remembrance of a past or the expectation of a future auditory experience, without becoming guilty of the most palpable absurdity. J. S. Mill himself says in a passage where he exposes the view on sensation which we have rejected: "A sensation involves only this: but a remembrance of sensation, even if not referred to any particular date, involves the suggestion and belief that a sensation, of which it is a copy or representation, actually existed in the past; and an expectation involves the belief, more or less positive, that a sensation or other feeling to which it directly refers, will exist in the future."<sup>1</sup> If this is true and undeniable, the same objection which we have rejected with regard to the act of hearing, as far as the identification of this act and its object is concerned, stands out in all its original strength in the case of the remembrance and expectation of an auditory experience. If there are no unconscious psychic phenomena, then, when I remember a past act of hearing, besides the image of hearing we have an image of the present remembrance of hearing which is not identical with it. This last image, how-

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<sup>1</sup>Exam. of Sir W. Hamilton's Philos., ch. 12.

ever, must also be conscious, and how could this be conceivable without the hypothesis of a third image with which such a representation would be in the same relation as it was with the remembrance? This third image, however, would likewise postulate a fourth one and so on to infinity. It seems impossible, therefore, that we can escape the hypothesis of an infinite complication of psychic phenomena in a great number of very simple cases, if we consider every psychic phenomenon conscious. In his work on Comte, while opposing the assertion of this author that the intellect cannot perceive its own acts, J. S. Mill declares that the mind is able to comprehend at the same time more than one impression, indeed even a considerable number of impressions (not less than six, according to Hamilton's opinion). The mind, however, does not possess sufficient power to grasp an infinite number of images. Indeed, it would be absurd to ascribe such a power to it. The hypothesis of unconscious psychic phenomena, therefore, seems to be unavoidable.

There is one point, however, which immediately makes us suspect that the difficulty may not be completely insoluble. In different epochs, great thinkers have encountered this difficulty, but only a few, because of it, have admitted the existence of unconscious psychic activities. Aristotle, who first called attention to it, did not do so. Recently, Herbart inferred from it the necessity of the existence of unconscious images,<sup>1</sup> but he did

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<sup>1</sup>"Among the numerous masses of images, of which each subsequent image apperceives the preceding one, or of which the third may take for its object the connection or the opposition of the first and the second, there must be an image which is the last one! This apperceiving image is not in its turn apperceived" (Psych. als Wissensch., Part II, Section II, ch. 5, 199).

so only after establishing the existence of unconscious psychic phenomena on the basis of other arguments. Moreover, it is known that he considered much too easily as insoluble a purely apparent contradiction. To my best knowledge, Thomas Aquinas is the only outstanding philosopher who, to some extent at least, advances a similar hypothesis of unconscious psychic activities. In view of the nature of his theory, however, we doubt that he has maturely reflected upon this question.<sup>1</sup> It seems, therefore, that there

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<sup>1</sup>According to St. Thomas Aquinas, we are conscious of the sensations of the so-called five senses. The senses themselves, he believes, cannot perceive their own acts. This perception would imply a reflection upon their acts, an action of the organs upon themselves, since St. Thomas considers sensations as functions of these organs. He considers such action impossible because a corporeal thing never acts upon itself to modify itself. According to St. Thomas, therefore, that which perceives the acts of the external senses is an inner sense faculty different from them, the sensus communis (Summ. Theol., P. I, Q. 78, a. 4, ad. 2; ibid., Q. 87, a. 3, obj. 3 and ad 3). But this internal sense, just as its corresponding object, is corporeal. It cannot, therefore, perceive its own activity. Since St. Thomas has not assumed a new sense, it follows that, according to his doctrine, the perception of the sensory acts of the external senses will never be perceived, and consequently that, in the field of our senses, we soon meet an unconscious psychic activity. Undoubtedly, he could have easily added a second and third internal sense, but what would he have gained by this? Without the hypothesis of a really infinite number of senses and sense organs, which could not possibly be contained in a finite body, he could not sustain on the basis of his principles the universality of consciousness for all sensory acts.

St. Thomas' theory of the consciousness of intellectual thinking is entirely different. The intellect (intellectus) is considered by him as immaterial and consequently capable of reflecting upon itself. From this point of view, therefore, nothing prevents it from knowing its own acts. There arises, however, another difficulty: the intellect, as St. Thomas conceives it, cannot think more than one thought at a time. A potency never contains more than one act. St. Thomas extricates himself from this embarrassing position by asserting that the consciousness of a thought rather than coexisting with the thought itself follows it. In this way, according to him, if no act of thinking can remain unconscious, in place of a series of simultaneous acts we have a series of successive acts in which each act is related to a previous act. According to St. Thomas, therefore, we can admit without

still remains an outlet which allows us to shun the conclusion of an un-

absurdity that the terms of this series multiply to infinity (Summ. Theol., P. I, Q. 87, a. 3, 2 and ad 2). Actually this will never be the case. Thus, also here the last term of the series is an act of thinking which is and remains unconscious.

I want to point out quite briefly some essential difficulties of this theory. First of all, it is inexpedient for St. Thomas to give an entirely different theory for the consciousness of sensory activity and for the consciousness of intellectual activity because, according to the testimony of inner experience, the two phenomena appear to be completely analogous. In addition, each of these two theories raises serious doubts. We would never be conscious that we are conscious of hearing, seeing, etc. Even this appears to be a difficult hypothesis. Another circumstance, however, proves even more clearly the impossibility of this conception. According to St. Thomas, the relation of the inner sense to its object is entirely identical with the relation of the external sense to the cause which produces a sensation. This is contradicted by the infallible evidence of inner perception which is entirely lacking in external perception. The inner perception of sensations could not be immediately evident, if it had for its object a state which is foreign to it, i.e., the state of an organ which is different from its own organ. Equally unsatisfactory is the theory of the consciousness of intellectual activity. According to this theory, we would be conscious only of a past act of thinking, never of the present act of thinking, an assertion which is not consistent with experience. If this were true, in the strict sense of the term we could not speak of an inner perception of our own thinking. Rather it would simply be a matter of some kind of memory which would relate to an immediately past act. It would follow, therefore, that also here the immediate infallible evidence of inner perception would be incomprehensible. In addition, how would we perceive the act of thinking? As present or as past or as undetermined as to time? Not as present, because perception would then be false. Not as undetermined, for otherwise it would not be a cognition of an individual act. Consequently as past. This shows clearly that the perception of the act of thinking must be considered not only as something similar to memory, but as a pure memory act. It would certainly be strange if subsequently we should have a remembrance of something which remained unnoticed by us when it was present.

Finally, let us remark that according to the Thomistic theory of the cognition of one's own intellectual acts there would exist not only some acts of which we will not be conscious even though we could be conscious of them, but also, just as in the case of sensations, acts of which we cannot possibly be conscious, unless we ascribe to the intellect an infinite power, an ability for an infinitely complicated thought process. "Alius est actus," St. Thomas says, "quo intellectus intelligit lapidem, et alius est actus, quo intelligit se intelligere lapidem; et sic deinde." The series of intellectual acts, therefore, become endlessly more and more complex in an increasing arithmetical progression.



conscious consciousness.

8. Let us examine, therefore, once more and with all accuracy the matter under discussion.

It undoubtedly happens that we are conscious of a psychic phenomenon while it is present in us; for example, while we have the image of a sound, we are aware of having it. Thus the question arises: in such a case, do we have many different images or only one?— Before answering this question we must specify whether we want to determine the number and the variety of images according to the number and the variety of objects, or according to the number of psychic acts in which we represent the objects. According to the first alternative, we must obviously say that in the case under discussion we had many images specifically different from one another, one of them forming the content of another, while having for its own content a physical phenomenon. If this were true, to a certain extent the physical phenomenon must belong to the content of both of these images, to that of one as explicit object, to that of the other, so to speak, as implicit object. Consequently, as Aristotle himself pointed out, it seems certain that the physical phenomenon must be represented twice.<sup>1</sup> But this is not the case. On the

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<sup>1</sup> De Anima, III, 2, p. 425, b, 12: ἔπει δ' αἰσθανόμεθα ὅτι ὄρωμεν καὶ ἀκούομεν, ἀνάγκη ἢ τῆ ὄψεως αἰσθάνεσθαι ὅτι ὄρω, ἢ ἑτέρα. ἀλλ' ἡ αὐτὴ τῆς ὄψεως καὶ τοῦ ὑποκειμένου χρώματος. ὥστε ἢ δύο τοῦ αὐτοῦ ἢ αὐτὴ αὐτῆς.

contrary, inner experience seems to prove beyond doubt that the image of sound is connected with the representation of the image of sound in such a characteristically intimate way that its very existence constitutes an intrinsic prerequisite for the existence of this representation.

This fact leads us to believe that there exists a special connection between the object of the inner image and this image itself, and that both belong to one and the same psychic act. Indeed, we must admit this. Referring back to the example mentioned above, we have to answer affirmatively the question of the plurality of images, if we determine them according to the number of objects; with the same certainty, however, we have to answer this question negatively, if we determine these images according to the number of psychic acts in which the objects are represented. The image of sound and the representation of the image of sound form one single psychic phenomenon; it is only by considering it in its relation to two different objects, one of which is a physical phenomenon and the other a psychic phenomenon, that we divide it mentally into two images. In the same psychic phenomenon in which sound is represented we perceive simultaneously the psychic phenomenon itself according to its twofold peculiarity, i.e., insofar as it has sound as content, and insofar as it has itself as content.

We can say that sound is the primary object of the act of hearing, and that the act of hearing itself is the secondary object. As to time, in fact, they manifest themselves simultaneously, but by nature sound precedes the act of hearing. An image of sound without an image of the act of

hearing would not be unconceivable, at least a-priori, but an image of the act of hearing without an image of sound would be an evident contradiction. The act of hearing appears directed toward sound in the most proper sense of the term, and because of this very fact it seems to be perceived indirectly and in a supplementary way.

9. If true, this conception enables us to explain several remarkable phenomena, and to answer the last objection, as well as the other objections mentioned above, against the hypothesis that all psychic phenomena are conscious.

Do we perceive our own psychic phenomena? This question must be answered with a categorical yes. In fact, without such a perception, how could we have the concepts of imagination and thinking? On the other hand, we are obviously not able to observe our present psychic phenomena; therefore, how can we explain this, if not on the basis of the fact that we are not able to perceive them? Formerly, no other explanation seemed possible, but now we see clearly the true reason. The correlative image which accompanies a psychic act belongs to the object upon which it is directed. If an inner image were ever to become inner observation, this observation would be directed upon itself. Even the defenders of inner observation, however, seem to consider this impossible. In his attempt to prove against Comte that we can observe ourselves during the process of observation, J. S. Mill appeals to our ability to pursue simultaneously several things with our attention.<sup>1</sup>

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<sup>1</sup>In his study on A. Comte and Positivism, Part I.

One and the same observation, therefore, can be directed upon another observation but not upon itself. That which is only a secondary object of an act can undoubtedly be conscious in this act, but cannot be observed in it, since observation postulates that we turn toward the object as primary object. Consequently, it is only in a second, simultaneous act, which is directed toward an act existing in us as a primary object, that this act could be observed. The accompanying inner image, however, does not actually belong to a second act. Thus we see that in general there cannot be any simultaneous observation of one's own act of observation or of another personal psychic act. The sounds we hear can be observed by us, but we cannot observe our act of hearing, for it is only in hearing of sounds that we can perceive the act of hearing itself. On the other hand, when we recall a previous act of hearing, we turn toward it as a primary object, i.e., we turn toward it as an object to be observed. In this case, our act of remembering is the psychic phenomenon which can be perceived only secondarily.<sup>1</sup> The same is true with regard to the perception of all other psychic phenomena.

Thus, between the contradictory opinions which we have discussed above,<sup>2</sup> those of Comte, Maudsley and Lange on the one hand, and those of the great majority of psychologists on the other, truth, as the proverb goes, lies in the middle.

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<sup>1</sup>This circumstance makes it more comprehensible how Thomas Aquinas could conceive the consciousness which is concomitant with thinking as a consciousness which is subsequent to thinking, and consider the consciousness of this consciousness as a third member of a series of reflections in which each subsequent member is related to the member that precedes it.

<sup>2</sup>Book I, ch. 2, 2.

There is another question. When we have an image of a sound or another psychic phenomenon and are conscious of this image, are we also conscious of this consciousness or not? Thomas Aquinas has explicitly denied that we are. At first, however, every unbiased man will be inclined to answer this question affirmatively. He will perhaps begin to hesitate only when he is told that in this case he must have three states of consciousness mutually containing one another, and that besides the first image and the representation of the image he must also have an image of the representation of the image. This hypothesis seems cumbersome and contrary to experience. The results of our investigation, however, indicate that we would not be justified in drawing such a conclusion. These results show that the consciousness of the image of sound coincides with the consciousness of this consciousness, since the consciousness which accompanies the image of sound is a consciousness not so much of this image as of the whole psychic act in which sound is represented, and in which consciousness itself is added to this image. Aside from representing the physical phenomenon of sound, the psychic act of hearing becomes at the same time in its totality its own subject and content.

In view of this, it is easy for us to dismiss the last attempt mentioned above to prove the existence of unconscious psychic phenomena. If every psychic phenomenon were accompanied by a corresponding image, our psychic life would become infinitely complicated. For a time, indeed, it seemed as if such an infinite complication was inevitable. But if this opinion is so completely absurd, how can we explain the fact that almost everyone has

espoused it, and that even among the philosophers who have accepted the existence of unconscious psychic acts, very few have called attention to this absurdity? At the very beginning of our investigation we assumed that there had to be a way out of this impasse. Now we see clearly that this assumption was correct, and that it is not necessary to assert this infinite complication. Far from having to admit an infinite series of images which become more and more complicated, we see that the series ends with the second term.

10. The characteristic fusion of the concomitant image with its object, as we have described it, has indeed been recognized by the great majority of psychologists,<sup>1</sup> even though they have rarely discussed it thoroughly and accurately. It was undoubtedly because of this that some did not see the difficulty and others were not troubled by it.

Aristotle in particular was not troubled by this difficulty. While on the one hand he emphasized, just as much as we did, the apparent necessity of an infinite series of psychic states, on the other it did not dawn upon him to assume on that account the existence of unconscious psychic states. On the contrary, he draws immediately the conclusion that a conscious psychic phenomenon must involve at the same time the consciousness of itself.<sup>2</sup>

<sup>1</sup>Very recently by Bergmann, Grundlinien einer Theorie des Bewusstseins (Berlin 1870), ch. 1 and 2.

<sup>2</sup>De Anima, III, 2: ἔτι δ'εὖ καὶ ἕτερα ἐν τῆς ὀφθαλμοῦ ἀποθνήσκουσιν, ἢ εἰς ἄλλορον εἶσιν ἢ αὐτῆ τῆς εἰσταν αὐτῆς.

He offers several explanations of this conception as it applies to sensations, but none of them is entirely satisfactory. It is quite certain, he says, that through sight, hearing, etc., we perceive something in more than one way. In fact, through sight we perceive not only light but also darkness, through hearing not only sounds but also silence, not only noise but also stillness, the absence of every noise; but not in the same way. As previously proved, therefore, different types of perception are involved in sight, hearing, etc. It is quite conceivable, therefore, that through sight we perceive not only colors but also the act of seeing, through hearing not only sound but also the act of hearing, even though this last perception is not an act of hearing in the proper sense of the term. Furthermore, sound is immanently present in the act of hearing, just as it is present in the action of the vibrating object, since these two acts are related to each other as passion and action. As such, therefore, they always exist simultaneously. We can only say that something really produces a sound, if there exists also a subject who really hears this sound. Otherwise, we could only speak of a sound in potency. Producing a sound and hearing it, like action and the corresponding passion in general, are actually one and the same thing; being conceptually correlative, they cannot be represented in any other way except in one and the same act.<sup>1</sup>

<sup>1</sup>Ibidi φανερόν τούτων ὅτι οὐχ ἓν τὸ ἐν ὁφειδισθῆναι καὶ

The comparison between the perception of the act of hearing and the perception of silence through hearing is not very appropriate. In addition, the subordination of the conceptual relation between hearing and producing a sound to that between passion and action is no way justified, because the concept of sound is not a relative concept. If this were the case, the act of hearing would not be the secondary object of the psychic act, but instead its primary object together with sound. The same would be true in every other case, which is evidently contrary to the opinion of Aristotle himself.<sup>1</sup>

γὰρ ὅταν μὴ ὁρῶμεν, τῆ ὄψις κρίνομεν καὶ τὸ σκότος καὶ τὸ φῶς, ἀλλ' οὐχ ὁρατότης. ἔτι δὲ καὶ τὸ ὁρῶν ἔστιν ὡς καυχώματι καὶ τὸ γὰρ αἰσθητήριον δεκτικὸν τοῦ αἰσθητοῦ ἄνευ τῆς ὕλης ἑκαστον. διὸ καὶ ἀπελθόντων τῶν αἰσθητῶν ἐνεσιον αἱ αἰσθήσεις καὶ φαντασίαι ἐν τοῖς αἰσθητηρίοις. ἡ δὲ τοῦ αἰσθητοῦ ἐνέργεια καὶ τῆς αἰσθήσεως ἡ αὐτὴ μὲν ἔστι καὶ μία, τὸ εἶναι οὐ ταῦτόν αὐταῖς· λέγω δ' ὅσον φόρος ὁ κατ' ἐνέργειαν καὶ ἀκοή ἢ κατ' ἐνέργειαν ἔστι γὰρ ἀκοήν ἔχοντα μὴ ἀκοῦσιν, καὶ τὸ ἔχον φόρον οὐκ αἰεὶ φορεῖ. ὅταν δ' ἐνεργῇ τὸ δυνάμενον ἀκοῦσιν καὶ φορῇ τὸ δυνάμενον φορεῖν, τότε ἢ κατ' ἐνέργειαν ἀκοή ἄρα γίνεται καὶ ὁ κατ' ἐνέργειαν φόρος, ὅν αἰσθῆσιν ἂν τις τὸ μὲν εἶναι θεωροῖεν τὸ δὲ φόρον. εἰ δ' ὄστιν ἡ κίνησις καὶ ἡ ποίησις καὶ τὸ πάθος ἐν τῷ ποιουμένῳ, ἀνάγκη καὶ τὸν φόρον καὶ τὴν ἀκοήν τὴν κατ' ἐνέργειαν ἐν τῇ κατὰ δυνάμιν εἶναι· ἡ γὰρ τοῦ ποιητικοῦ καὶ κινητικοῦ ἐνέργεια ἐν τῷ πάσχοντι ἐγγίνεται. διὸ οὐκ ἀνάγκη τὸ κινεῖν κινεῖσθαι. . . . ὁ δ' αὐτὸς λόγος καὶ ἐπὶ τῶν ἄλλων αἰσθήσεων καὶ αἰσθητῶν. ὥσπερ γὰρ ἡ ποίησις καὶ ἡ πάθησις ἐν τῷ πάσχοντι ἀλλ' οὐκ ἐν τῷ ποιούντι, οὕτως καὶ ἡ τοῦ αἰσθητοῦ ἐνέργεια καὶ ἡ τοῦ αἰσθητικοῦ ἐν τῷ αἰσθητικῷ. . . . ἐπεὶ δὲ μία μὲν ἔστιν ἐνέργεια ἡ τοῦ αἰσθητοῦ καὶ ἡ τοῦ αἰσθητικοῦ τὸ εἶναι ἕτερον, ἀνάγκη ἕνα φεῖσθαι καὶ ὡφείσθαι τὴν οὕτω λεγομένην ἀκοήν καὶ φόρον, καὶ χωρὶν δὲ καὶ γεῖσθαι καὶ τὰ ἄλλα ὁμοίως. τὰ δὲ κατὰ δυνάμιν λεγόμενα οὐκ ἀνάγκη.

<sup>1</sup> Otherwise he would admit that we see not only color but the act of seeing and would not ascribe to the ὄψις a second kind of διαβίνεσθαι (ἢ ἀλλ' οὐγ' ὡσαυτως) which makes possible the perception of this act.



Likewise, we could not think of anything without its being in some sort of relation with ourselves and our thoughts, which is obviously false. Nevertheless, while in this passage Aristotle expresses himself inaccurately, to say the least, in other passages he states very clearly his true conception. In the twelfth book of his Metaphysics, for example, he says: "Knowledge, sensation, opinion and reflection seem always to relate to something else, but only incidentally to themselves."<sup>1</sup> It is evident that this conception agrees entirely with ours. It is undoubtedly this conception which prompted him to write the above quoted passage in which he rejected as an unjustified inference the infinite complication of psychic activity. However, since he wanted to give here a clear idea of his views on the peculiar union in one

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<sup>1</sup> Metaphysics, A, 9:  $\epsilon\phi\omega\upsilon\epsilon\tau\alpha\iota$   $\delta\iota\delta\epsilon\iota$   $\alpha\lambda\lambda\omicron\upsilon$   $\eta$   $\epsilon\upsilon\iota\sigma\tau\acute{\eta}\mu\eta$   $\kappa\alpha\iota$   $\eta$   $\delta\iota\sigma\theta\eta\sigma\iota\varsigma$   $\kappa\alpha\iota$   $\eta$   $\delta\omicron$ ' $\epsilon\alpha$   $\kappa\alpha\iota$   $\eta$   $\delta\iota\sigma\lambda\omicron\upsilon\alpha$   $\alpha\upsilon\tau\eta\varsigma$   $\delta$ ' $\epsilon\nu$   $\kappa\alpha\tau\epsilon\epsilon\gamma\gamma$ .

Cf. also ibid., 17, p. 1072, b, 20. Other passages give the impression that Aristotle, just like Thomas Aquinas, admits a special internal sense for sensations and that on account of this he renounces the theory of a fusion into one act of sensation and the concomitant inner image. Indeed, it seems that his general theory of the faculties of the soul can be more easily reconciled with such a conception. It is for this reason that in my Psychologie des Aristoteles I went along with the majority of his commentators and ascribed it to him. However, since the passage of De Anima III, 2, speaks so clearly against it, and since it is highly unlikely that there is a contradiction among his different statements on this point, I adhere now to the conception exposed in this text. In his work: Die Einheit des Seelenlebens aus den Principien der Aristotelischen Philosophie entwickelt, (Freiburg, 1873), H. Schell has attempted with great sagacity to reconcile the statements which contradict this unity, and to harmonize thereby the metaphysical views of Aristotle on act and potency, etc. Cf. also further on Book II, ch. 3, 5.

single act of the act of hearing and the perception of this act, and since he did not find suitable analogies to this end, he simply happened to put this union in a rather false light.

We can easily convince ourselves that psychologists by and large lean toward a similar conception. J. S. Mill, whose diverging opinion on sensations we have already analyzed and attempted to refute, expressed with regard to remembrances and expectations a conviction which is congruent with ours. According to him (and how could it be otherwise?), these psychic experiences have as their content a phenomenon which is distinct from them, and which is either anterior or posterior to them; but at the same time they are their own object, since in this regard they do not differ at all from sensations: "In themselves," he says, "they are present feelings, states of present consciousness, and in that respect not distinguished from sensations."<sup>1</sup> If we recall Mill's doctrine concerning sensations, and especially the way in which, according to him, we are conscious of them, we see that he could not agree with us more closely. Bain is undoubtedly of the same opinion. Lotze, too, believes that psychic phenomena which exist in us imply that we are conscious of them. We may even say that this opinion is shared by all those who deny the existence of unconscious psychic phenomena (in our sense of the term). Among them is Ulrich who declares explicitly that "all our sensations are simultaneously self-sensations of the

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<sup>1</sup> Exam. of Sir W. Hamilton's Philosophy, ch. 12.

soul."<sup>1</sup> Furthermore, the great majority of those who assert the existence of unconscious psychic phenomena agree with us. Beneke, for example, does not believe that the correlative consciousness which accompanies a psychic phenomenon is added to it as a second, distinct act; on the contrary, he believes that it is concomitant with it, constituting one of its specific and characteristic properties.<sup>2</sup> The universality of this conviction explains why the fourth path to prove the existence of unconscious psychic phenomena has been utilized so little, and confirms to our satisfaction the correctness of our discussion.

11. The characteristically intimate union of the psychic act with the correlative concomitant image made it possible for us to undermine also the last kind of attempts made to prove the existence of unconscious psychic acts. Let us see whether we can draw further conclusions from them.

We have discussed above the question of the existence of a functional relation between the intensity of conscious psychic phenomena and the intensity of correlative concomitant images. We saw that the common opinion favors such a hypothesis, since it generally attributes to images and their concomitant representations the same degree of intensity. A closer examination confirmed this opinion. In spite of its simplicity, we felt that

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<sup>1</sup>Gott und der Mensch, I, 284.

<sup>2</sup>Lehrb. d. Psycholog., 2nd ed., #57.

this solution could not constitute the true basis for the common opinion. But we were not in a position then to explain the origin of this opinion. If I am not mistaken, we are now in a position to offer the missing explanation.

If we see a color and have an image of our act of seeing, the color which we see is likewise represented in the image of this act. This color is the content of the image of the act of seeing, but it also belongs to the content of this act.<sup>1</sup> Consequently, if the image of the act of seeing were more or less intense than this act, the color would be represented in it with a different intensity than in the act itself. On the other hand, if the intensity of this color, insofar as it is seen, is equal to the intensity it has, insofar as it belongs to the content of the image of the act of seeing, the act of seeing and the image of this act have equal intensity. This constitutes an obvious argument in support of our opinion. We have recognized that the act of seeing and the image of this act are connected in such a way that, as the content of the act of seeing, color contributes at the same time to the content of the representation of the image of this act. Color, therefore, even though it is represented both in the act of seeing and in the image of this act, is actually represented only once.<sup>2</sup> It is self-evident, therefore, that there cannot be any question of a difference

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<sup>1</sup>Cf. above, 8.

<sup>2</sup>Ibid.

of intensity. This explains very easily the origin of the common belief, which now appears fully justified, that the act of seeing and the image of this act do not differ from each other in intensity. Consequently, if the strength of a conscious sensation or another conscious image increases or decreases, the strength of the correlative concomitant inner image increases or decreases, to the same degree, so that both phenomena have always the same degree of intensity.

12. An objection, however, arises. If the intensity of the image of the act of hearing increases and decreases always to the same degree as the intensity of this act, it follows that, when the intensity of the act of hearing becomes zero, the intensity of the concomitant image will also become zero. The opposite, however, seems to be true. How could we otherwise perceive that we do not hear? This is indeed what we do when, in music, the occurrence of complete silence, the cessation of all noise. The image of non-hearing sometimes appears to be quite intense. Thus, it happens that the miller who sleeps peacefully during the clatter of the mill awakens from his deepest sleep, if the mill suddenly stops. The same phenomenon occurs in a case previously quoted from Lewis in which the listener who fell peacefully asleep during the sermon, awakened at its end, even before the noise of the rising crowd could wake him up.

This objection may indeed cause some doubt for a moment, since it appears not merely to endanger the theory which we have just advocated,<sup>1</sup> but

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<sup>1</sup>Ibid.

actually to prove the existence of objectless perceptions. The absence of hearing is obviously not a positive object. Upon closer scrutiny we find an answer to this objection. When we have the image of a pause and of the length of a pause, the sounds by which the pause is limited appear to us with their different temporal characteristics. After being represented as such, each sound will continue to be represented for a certain time as past, and as past to a greater or lesser degree. It is the magnitude of this difference which constitutes the so-called length of the pause. Thus we still have an image of sounds of a certain middle temporal duration will not be represented. Since we have an image of sounds, it is in no way astonishing that this image is accompanied by a correlative image of equal intensity.

The perception of sudden silence is a similar, but more simple phenomenon. A noise, which formerly appeared as present, appears now as immediately past, even if no noise appears as present. In addition, according to our previous conclusions, the image of the noise which appeared as past is accompanied by an equally intense image.

One can perhaps object that this explanation is not sufficient. As long as the mill continues to clatter, the miller has indeed the image of a clatter which appears as immediately past, as if the mill were beginning to stop. Besides this image, however, he still has the image of the clatter which appears as present. Thus he has the image which, according to our opinion, woke him up when the mill stopped. In addition to this image, he only has another image. Consequently, now as before, we lack a cause

which could really explain his awakening; and this cause will be missing as long as we do not decide to admit a special perception of the absence of hearing. This situation is actually similar to that of images of a color which sometimes fills a bigger, and sometimes a smaller surface. Just as in the latter instance color appears more limited in space, the noise, upon stopping, appears more limited in time. In both instances, the image is changed, the contours are displaced. Likewise, just as it can happen that the smaller colored surface can attract our attention, while it would not do so if it were more extended, so it is possible that the same thing happens in the case of noise. This will depend upon the particular associations which are connected with these two phenomena. As soon as the wheel stops, the miller has the duty to remedy this interruption; by contrast, as long as the mechanism functions normally, he does not have to pay attention to the mill. It is, therefore, comprehensible why the cessation of noise awakens him. The case of the waiter in the restaurant quoted by Lewes can be explained in a similar manner. The name "waiter" woke him up more easily than any other name because it was by means of it that his services were usually requested.

We could discuss this issue more thoroughly, and in particular we could refer to the fact that contours ordinarily attract our attention. The competition of the fields of vision offers so many striking examples of this fact. It seems better, however, to reserve this matter for later consideration.

13. Our previous conclusion, therefore, remains unchanged. If the strength of a conscious image increases and decreases, the strength of the correlative concomitant image increases and decreases to the same degree, and both phenomena always have the same degree of intensity.

If correct, this conclusion not only refutes any eventual attempt to prove the existence of unconscious images on the basis of the functional relation under discussion, but, as we have already indicated above, can be regarded as a proof that there are actually no unconscious images in our sense of the term. This, of course, does not mean that all psychic phenomena are accompanied, during their existence, by consciousness. In fact, besides images there are also other psychic activities, such as judgment and desire. We have, nevertheless, taken an important step toward this conclusion.

However, how will it be possible for us to attain this goal? By analogy, we could suppose that in the case of other conscious psychic activities there also exists a functional relation between their own intensity and the intensity of the correlative concomitant images, i.e., the same relation of simple equality which we have proved in the case of conscious images. But if by intensity of a judgment we understand the degree of confidence with which we make such a judgment, experience teaches us that a weak opinion can be accompanied by an image which is just as strong as, if not stronger than, a full conviction, provided only that the image which is at the basis of such an opinion be quite intense. Upon further reflection, we shall



easily recognize that we can in no way speak of an equality, nor of a greater or lesser intensity, of an image in comparison with the strength of a conviction, and that we are dealing here with differences which are not in any way comparable.

Nevertheless, if it is true that the strength of the image of judgments cannot be compared with the degree of their assent or dissent, it is even more certain that judgments have an intensity which makes this comparison possible. Just as the intensity of the image of an object is equal to the intensity with which the object appears in it, so judgment shares the intensity of its own content. The intensity of the image which is at the basis of judgment is at the same time an intensity of judgment in the same sense of the term. If we compare this intensity with the intensity of the image which is correlative to, and concomitant with judgment, we can easily demonstrate, on the basis of the twofold procedure by means of which we have proved the equality of the intensities of images and the representation of images, that the same relation is present in this case. On the one hand, this relation is the consequence of the infallibility of inner perception, and on the other it is confirmed by the fact that the image of judgment appears connected with judgment in the same way as the representation of images appears connected with these images. The content of judgment belongs not only to judgment itself, but also to its image without undergoing any kind of duplication. Consequently, there cannot be any difference of inten-

sity. What is true of judgment, however, is also true for the same reasons of any other kind of conscious psychic activity.

The functional relation which we have discovered in the conscious image, between its intensity and the intensity of its correlative inner representation, may consequently be extended to the whole field of conscious psychic phenomena. In general, the concomitant and the original phenomenon have the same intensity. This proves that there never exists in us a psychic phenomenon of which we have no image.

The question of whether there is an unconscious consciousness, in the sense in which we have formulated it, therefore, must be answered with a categorical "no."

### CHAPTER III

#### FURTHER CONSIDERATIONS ON INNER CONSCIOUSNESS

1. The investigations of the preceding chapter have proved that every psychic act is accompanied by a correlative consciousness. We must now dwell upon the problem of the complexity and nature of this concomitant consciousness.

It is perhaps worthwhile to clarify briefly this problem.

As previously explained, by the term "consciousness" we characterize every psychic phenomenon, insofar as it has a content. There are, however, different kinds of psychic phenomena; as we have already mentioned, they always have a content, but according to different modes. Thus the question arises whether psychic phenomena, as objects of consciousness, are conscious according to one or several modes, and what these modes are. Up to now, we have proved only that they are represented by us. It follows that, if they are in any way conscious, they must naturally be conscious in this form, since images are the foundations of all the other psychic phenomena. Our present problem is whether psychic phenomena are merely represented or whether they can be present in our consciousness according to a different mode.

What is certain is that cognition frequently accompanies psychic phenomena. We think, we desire something, and know that we think and desire.

Cognition, however, is found only in judgment. It is beyond doubt, therefore, that our psychic acts are frequently accompanied not only by a correlative image but also by a correlative judgment. We now want to investigate whether there are psychic acts in which such a judgment is lacking.

2. No one who recalls our explanation concerning images will assert that the hypothesis that each psychic phenomenon is the object of a concomitant cognition leads to an infinite complication of psychic life, and consequently is impossible by its very nature. The characteristic fusion of consciousness and the object of consciousness is just as evident in cognition as it was in the case of images. Whenever a psychic act is the object of a concomitant inner cognition, it contains not only its relation to a primary object, but also itself in its totality as represented and known.

This alone makes possible the infallibility and immediate evidence of inner perception. If the cognition which accompanies a psychic act were an act in itself, which is added as a second act to the first one; if its relation to its object were simply that of an effect to its cause, such as exists between a sensation and the physical stimulus which produces it, what guarantee would it offer? How could we really be sure of its infallibility?

It has often been stated that an infallible control of perception is possible when we are able to compare the content of the image with the actual object. In so-called external perception we cannot make this comparison because in this case only the image of the object exists in us, but not the actual object. External perception, therefore, is and remains unre-

liable. On the contrary, we are absolutely certain of the veridicality of inner perception, because in this case there exists in us not only the image, but also the actual object of the image.

It is easy to recognize the error which is committed here. The comparison between the content of an image and a real object is possible not because this object exists in us, but only because it is perceived by us. If something exists in us without our knowledge of it, we cannot recognize its correspondence to the object which is represented. The comparison, therefore, presupposes that we know with certainty the very object from which the certainty of knowledge is to be derived, which is contradictory in itself.

The way in which Überweg justifies his confidence in inner perception is in no way more satisfactory: "Inner perception or the immediate knowledge of psychic acts and psychic processes," he says, "can perceive its objects as they are in themselves with material truth. Inner perception, in fact, takes place insofar as each psychic process is perceived through association as an integral part of the totality of our psychic processes... An individual process, however, cannot be changed, either as to content or as to form, through its association with the other processes. It enters into this association just as it is. Accordingly, as soon as our images, thoughts, feelings, desires, in general the elements of our psychic life and their connections, are actually present, we are conscious of them. And as soon as we are conscious of them, they actually exist, since consciousness and

existence are identical in psychic activities as such."<sup>1</sup>

It is clear, therefore, that Überweg does not claim that inner perception is guaranteed through comparisons between the content of the image and the actual reality of the object. He believes that the perception of a psychic act involves a connection of this act with another act. Because of this connection the actual act becomes a part of a cohesive whole which is formed out of the totality of the actual acts. It is this integration into the whole which constitutes the perception and cognition of the act. This act is necessarily perceived and known as it really is, since it is assumed as such into the whole.

This conception would be entirely satisfactory, if we could admit that an association and a series of real things, an integration of parts into a tightly connected whole, as for example the introduction of wheels, cylinders, plates and bars into the structure of a well-built machine, involve the cognition of these real things. In his History of Philosophy, Überweg has reproached St. Anselm for confusing being of reason with real being in his ontological argument. But he himself has committed the same error, since he implicitly considers the actual existence of parts in a whole as an existence in the sense in which we say that the known object exists in the knowing subject.

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<sup>1</sup>System der Logik, 2nd ed., p. 67 f.

These attempts to establish the infallibility of inner perception, therefore, failed completely. The same may be said of any other attempt which might be substituted in their place. It is impossible to prove the truth of inner perception. What is even more important, however, is that this truth is immediately evident. If we were to raise a skeptical doubt against this last foundation of cognition, we would not find any other foundation upon which to erect the edifice of science. Consequently, there is no need for a justification of our confidence in inner perception. Unquestionably needed, instead, is a theory about the relation of this perception to its object, which is compatible with its immediate evidence. As we have already said, such a theory is no longer possible, if perception and object are erroneously placed into two different psychic acts, one of which only by chance is the effect of the other. Even the well-known remark of Descartes makes this clear; for an all-powerful being, if it existed, would undoubtedly be able to produce the same effect as the object. Thus, if that real unity, that peculiarly intimate connection which we have found above between the act and the concomitant image, did not exist also between this same act and inner perception, the evidence of their cognition would be impossible.

We can say that this argument derived from the evidence of inner perception carries even more weight, confirming the mode of union of the inner image with its actual object, which we have recognized above on the basis of a different procedure. The cognition of an actual object cannot be

united with it more intimately than its image, since the latter constitutes the foundation of cognition. In both cases, and for the same reasons, the situation is the same. It is not surprising, therefore, that the psychologists, modern psychologists as well as Aristotle, who, like us, have thought that the image which accompanies a psychic act is incidentally contained in this act, have likewise believed that the concomitant cognition is also contained in it.

3. Nevertheless, even though we need not be afraid of the inference of an infinite complication of psychic activity, another difficulty seems to stand in the way of the hypothesis that every psychic act is accompanied by a correlative cognition. Every cognition is a judgment and every judgment, according to the common opinion, consists in the fact that a predicate is attributed to, or denied of a subject. In the case of cognition through inner perception, the judgment is undoubtedly affirmative, but the predicate which is attributed to the subject would have to be its existence, since we perceive that there exists a psychic act. Philosophers, however, do not agree among themselves as to real meaning of the term existence, even though they know, as does the average man, how to use it with all assurance. Nevertheless, it is not difficult to see that this concept is a very general, and hence a very abstract, concept, even if it were really derived from experience and did not exist in us as an a-priori concept prior to all experience (which has always been a precarious assumption). Would it be conceiv-



able, therefore, that even the first sensation of a child is accompanied not only by an image of the act of sensation, but also at the same time by a perception of this act? by a cognition bearing upon its existence, by a judgment which connects the concept of existence as predicate with the psychic phenomenon as subject, I believe that everyone fully recognizes the improbability, indeed the impossibility, of such an assumption.

This argument would undoubtedly be irrefutable, if the traditional theory of judgment were true. According to this theory, every judgment connects a plurality of concepts, and in particular the judgment which is expressed in the existential proposition adds the concept of existence to every concept taken as subject. We shall prove in a general way that this conception is false,<sup>1</sup> because by its nature judgment is not essentially composed of a subject and a predicate. On the contrary, the distinction of these two elements is due merely to a commonly used form of linguistic expression. In cognition through inner perception, however, we find a particular form of judgment which openly contradicts the usual opinions of psychologists and logicians. Anyone who pays attention to what goes on within himself when he hears or sees something, and perceives his act of hearing or seeing is bound to realize that this judgment of inner perception does not consist in the connection of a psychic act as subject with existence as predicate, but in the simple admission of the psychic act which is represented in inner con-

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<sup>1</sup>Book II, ch 7, 5 ff.

sciousness. Consequently, even this argument against the universality of a cognition of psychic acts through inner consciousness turns out to be untenable.

4. Let us try to advance a positive proof of the universality of such a concomitant cognition.

We recall the procedure which we followed when we dealt with the question of whether every psychic act is accompanied by a correlative image. We showed that, in conscious psychic phenomena, the intensity of the concomitant image increases and decreases to the same degree as the intensity of its concomitant act (or as the intensity of the image which is at the basis of this act), and that both always have the same degree of intensity. It follows that the concomitant image is absent only in those cases in which the act itself is abolished. With respect to the concomitant cognition, the proof does not appear so simple. As previously remarked, as a judgment, this cognition possesses a twofold intensity: first, an intensity in the sense in which we say that images have an intensity; second, a type of strength which is characteristic of judgment, i.e., the degree of conviction with which judgment is enounced. If one or the other become zero, there would be no judgment.

Our preceding investigations, however, have amply paved our way. We know that with regard to the first mode of intensity every judgment shares the degree of intensity of the image which lies at its basis. The concomitant image loses all its intensity only in the case in which the object it-

self disappears; consequently, as long as the object is present, there will never be any reason why the cognition which accompanies the psychic act should disappear.

[It follows that we have to take into consideration only the strength which is characteristic of judgment, i.e., the degree of conviction. Here we do not find anything which would appear analogous to the functional relation which we discussed above. The degree of conviction which is immanent to the concomitant cognition is in no way a function of the intensity of the act which accompanies this cognition. Whether it is a question of an image, a judgment, a desire, or any other kind of psychic phenomenon, the increase or decrease of its intensity does not affect the intensity of the conviction with which we perceive it. Nevertheless, the relations are such that they allow us to draw an undeniable conclusion. The strength of the conviction of the concomitant judgment which asserts the existence of the psychic phenomenon remains always the same. Far from resembling the small degree of assent which characterizes an opinion in the very first stages of its formation, this conviction is always absolute. Indeed, every inner perception is accompanied by this absolute conviction which is inherent in all types of immediately evident cognition. It is this very relation which favors above all others the hypothesis of the universality of the concomitant cognition. If, with respect to the strength of conviction, inner perception always shows the highest degree of perfection; if, for this reason, inner perception never and under no circumstance shows a tendency

to fade away, we may assert with certainty that inner perception will not fail except perhaps by default of the other changeable intensity of which we have spoken above. This intensity, however, varies only as a function of such laws, and in such a relationship with the intensity of the concomitant act, that it is entirely eliminated only if this act itself completely disappears. We can assert, therefore, that the concomitant cognition can also be absent only in this case.]<sup>1</sup>

Every psychic act, therefore, is accompanied by a twofold inner consciousness, by a correlative image and a correlative judgment, the so-called inner perception, which is an immediate, evident cognition of the act.

5. Experience shows that there exist in us not only an image and a judgment, but frequently a third kind of consciousness of the psychic act, i.e., a feeling which is related to this act, a pleasure or displeasure which we experience on account of this act. Let us return to our old example: often the act of hearing a sound is obviously accompanied not only by an image and cognition of this act itself, but also by a feeling, either of pleasure, as when we hear a soft, clear and youthful voice, or of displeasure, as when we hear someone strumming a violin. On the basis of our previous

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<sup>1</sup>This paragraph is put between brackets by Kraus, who remarks that Brentano modified his conception on this point. This same comment applies to other instances in the following pages in which brackets are found in the text. (Translator's note).

discussions,<sup>1</sup> this feeling, too, has an object to which it refers. [This object is not the physical phenomenon of sound, but the psychic phenomenon of hearing. It is evident, in fact, that it is not the sound itself, but the act of hearing a given sound which is agreeable and pleasant or unpleasant to us.] This feeling, therefore, also belongs to inner consciousness. The same thing occurs when we see beautiful or ugly colors, etc.

When present, this concomitant feeling seems to form an integral part of the phenomenon which accompanies it and to be contained in it just as the correlative image and perception. If the relation were different, the concomitant feeling would be a second psychic act, which would again be accompanied by consciousness. The correlative image, however, would necessarily contain not only this act, but also its content, i.e., the psychic act to which it refers. This psychic act, therefore, would be represented twice: first by its own image which belongs to it and is given in it, and secondly by the image of the feeling which belongs to the concomitant act of feeling. Experience does not give us any evidence of this. On the contrary, it admits as possible only the hypothesis that, just like images and inner perception, the inner feeling which accompanies hearing, seeing and every other act of which we are conscious in this way, is intimately united with its object and is contained in it. Our previous analogous exposition

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<sup>1</sup>Book II, ch. I, 5.

saves us the effort to clarify these statements by means of a more detailed explanation.

On the other hand, it is perhaps worthwhile to point out the numerous and varied clues which justify our conception.

We recall Hamilton's own personal opinion in regard to the feelings of pleasure and displeasure. He believed that there does not exist in them the same relation of subject and object as in the other psychic phenomena. Subject and object are here so fused together that actually we can no longer speak of an object.<sup>1</sup> Hamilton, however, must undoubtedly have found some support for his theory in experience, even though he did not describe its phenomena very accurately. Indeed, his error would be altogether incomprehensible, if, in direct contradiction with his assertions on the matter, feeling itself, even in the sense in which it is demonstrated by inner images and cognition, would never merge with its object.

We have seen above that in certain sensations the concomitant feeling of pleasure or displeasure has been confused not only with sensation itself, but also with the immanent object of sensation, i.e., with the physical phenomenon which constitutes the primary object of the sensory act. This is what we found especially in the case of the pain and pleasure of the so-called sense of touch. We saw that philosophers and non-philosophers alike have committed the same error. This error, too, is undoubtedly a proof

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<sup>1</sup>Cf. above, Book II, ch. 1, 5, pp. 137-138.

which bears upon the intimate connection between feeling and the act which is accompanied by it.

Moreover, the unanimous opinion of ancient and modern psychologists bears direct witness to the relation which we have established. The most eminent English empiricist psychologists hold that the pleasure or displeasure which accompanies a sensory act is contained in the act itself. This view, for example, is expressed by James Mill<sup>1</sup> and is also shared by Bain who distinguishes only a twofold aspect or twofold property in sensation: first, to use his expression, its mental property, and secondly, its emotional property, by which he understands the pleasure or displeasure which are associated with it. J. S. Mill defends the same opinion, which he considers absolutely correct in most cases. Nevertheless, in a note on the work of his father he raises the question whether in certain special cases the pleasure or displeasure which accompanies a sensation could perhaps constitute a separate reality, "rather than a particular aspect or quality of the sensation." He mentions the objections which could give origin to a different opinion in this connection, but in spite of these objections he rallies to the same conception and tries to remove all doubts.<sup>2</sup>

The same is true of German writers. For example, in a psychological

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<sup>1</sup>Anal. of the Phen. of the Human Mind, 2nd ed., II, ch. 17, 184 f.

<sup>2</sup>Ibid., 185, where he also gives an account of Bain's view.

work generally considered of great value, Domrich, using Mill's expression, calls the feeling which accompanies a sensation "a quality of this sensation." He conceives the relation between all the other images and the feeling which accompanies them in the same way, calling feeling "the way in which consciousness is aroused through perception."<sup>1</sup> Nahlowsky, too, believes that the pleasure or displeasure connected with a sensation are given in the sensation itself. He calls them the "tone of the sensation," but at the same time refuses to call them "feelings" because, in his opinion, they are entirely different from feelings properly called.<sup>2</sup> He was obviously led to this position by his desire to remain in agreement with the general principles of Herbart's doctrine on feelings. In fact, while on the one hand Herbart and his school consider feelings as states of images, on the other they assert that feeling can only arise out of a relation among several images. However, since he was trying to emancipate himself from Herbart in this field, Nahlowsky would have been in a better position if he had renounced the principle itself rather than making a distinction which obviously is untenable, and which puts him in contradiction not only with all the other

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<sup>1</sup>Die psychischen Zustände, p. 16 f.

<sup>2</sup>Das Gefühlleben, Introduction. Volkman, in Grundriss der Psychol., p. 55 and Waits, in Psychol. als Naturwiss., p. 286, express the same opinion as Nahlowsky.



psychologists, but also with the most outstanding followers of Herbart, such as Drobisch, Zimmerman, etc. Wundt, too, rightly points out that feelings, which Nahlowsky considers only as "tones of sensation," often give origin to complex emotions of which they are the elementary factors.<sup>1</sup> For this reason he uses as synonymous the expressions "feeling tone of the sensation" and "sensory feeling," but at the same time states very explicitly that this sensory feeling is an "integral part" of sensation, "a third determinant" which is added to the quality and intensity of sensation, insofar as every sensation is an "integral part of consciousness."<sup>2</sup> Thus, Wundt, too, and perhaps even more than the other psychologists mentioned above, is favorable to our theory.

Not only these and other modern psychologists, however, lean toward this theory. In antiquity, Aristotle himself has anticipated it. In his Nicomachean Ethics, when he speaks of the pleasure which accompanies certain psychic activities, he says that this pleasure achieves the perfection of the act, not as a preparatory disposition, but as a formal cause; that it is added to the act in order to perfect it; that it belongs to the activity which is accompanied by it like maturity to the prime of life; that it

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<sup>1</sup>Grundz. d. physiol. Psychologie, p. 428.

<sup>2</sup>Ibid., p. 436, 427.

is contained in this activity<sup>1</sup> and that, as perfection of the act, it is specifically different according to the specific difference of the act.<sup>2</sup> All this shows beyond any doubt that this keen observer of psychological phenomena agrees with our conception.<sup>3</sup>

6. The question now arises whether this third mode of concomitant consciousness resembles the other two, insofar as it is always connected with psychic acts.

Psychologists do not agree among themselves on this issue. James Mill, for example, asserts that there are neutral sensations, but at the same time recognizes that in every class of sensations we find sensations which are accompanied by pleasure or displeasure.<sup>4</sup> Indeed, all psychologists

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<sup>1</sup>Eth. Nic., X, c. 4. Among other things he says: *τελειοῦ δὲ τὴν ἐνέργειαν ἢ ἡδονῆς οὐχ ὡς ἡ ἕξις ἐνυπαρχουσα ἀλλ' ὡς ἐπιγιγνομένον τὸ τέλος οὖν τοῦς*

<sup>2</sup>Ibid., c. 5.

<sup>3</sup>This undoubtedly corroborates our claim that, in regard to concomitant inner perception, Aristotle has entertained an analogous conception.

<sup>4</sup>Anal. of the Human Mind, 2nd ed., II, ch. 17, 185. Aristotle seems to have been of the same opinion. He admits that there are feelings in every class of sensations (Eth. Nic., X, 4, 1174, b, 20). Indeed, he holds the same view with regard to all the other categories of psychic activities, such as thinking (ibid.) and appetite (ibid., 5, 2176, a, 26). In addition, he seems to have admitted also neutral sensations, even though this conclusion is not absolutely certain (De Anima, III, 7, 431, a, 9).

agree on this point. Some of them, however, go further. A. Bain<sup>1</sup> and J. S. Mill, for example, are of the opinion that every sensation is accompanied by a feeling. With respect to those sensations which might not appear to be accompanied by feelings, S. Mill says in his work on Hamilton: "without being absolutely indifferent, they are not, in any absorbing degree, painful or pleasurable."<sup>2</sup> H. Spencer declares that, just as every emotion includes a cognition, every cognition includes an emotion.<sup>3</sup> Although belonging to a different school, Hamilton is of the same opinion. Every psychic state according to him, is connected with a feeling.<sup>4</sup> In Germany, this opinion has many eminent representatives. Demrich, for example, says that feeling and mind cannot be entirely separated from the other psychic phenomena. His investigations led him to the conviction that every sensation or image is accompanied at the same time by a feeling, even though the intensity of the latter can be very variable.<sup>5</sup> Lotze is even more explicit. He states that

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<sup>1</sup>Bain believes that all sensations can be called feelings, since they all have a certain emotional character. It is strange, therefore, that besides pleasant and unpleasant emotions he admits emotions which are absolutely neutral, such as surprise (Mental Science, 3rd ed., p. 215, 217). The conception of J. S. Mill is undoubtedly more correct.

<sup>2</sup>Exam. of Hamilt. Philos., ch. 13.

<sup>3</sup>Cf. Ribot, Psychologie Anglaise Contemporaine, p. 195.

<sup>4</sup>Lectures on Metaph., I, 188 f; II, 433 f.

<sup>5</sup>Die psych. Zustände, p. 163.

"above all it is necessary to free oneself from the habit of considering feelings as secondary events, which would occur from time to time in the course of inner states, while the latter for the most part would consist in a neutral series of changes without pleasure or displeasure... Each (stimulation) should produce in us an impression of pleasure or displeasure. Indeed, to the extent that it is possible to recognize the faint nuances of these impressions, a closer self-observation confirms this conjecture, since we do not find any manifestation of our psychic activity which is not accompanied somehow by a feeling. These nuances, however, are dimmed in the mature mind by the predominant interest which we bestow upon certain goals of our own personal endeavors. Deliberate attention, therefore, is needed to detect them, just as microscopic observation reveals the regular formation of invisible objects which we ordinarily do not notice or overlook. To every single sensation, to every color, to every sound, there corresponds originally a particular degree of pleasure or displeasure. However, since we are accustomed to grasp these impressions only insofar as they refer to objects which are important to us on both the perceptual and conceptual level, we notice the value of a simple object only when we concentrate all our attention upon its content. Every form of composition of complex objects arouses in us, as soon as we perceive it, a delicate impression of its agreement with the habits of our own development. It is these feelings, which are often obscure, that give each object the particular tinge it has for each individual subject... However, even the simplest and apparently most stereotyped and abstract concepts are never entirely destitute of this concomitant feel-

ing. We do not grasp the concept of unity without enjoying at the same time a feeling of harmony which is included in its content; we do not grasp the concept of opposition without experiencing at the same time the displeasure of disharmony; we neither observe rest, movement, equilibrium in things, nor do we represent them in our mind without becoming totally involved with them and without experiencing the degree and nature of the progress or inhibition which we could encounter on account of them...A considerable part of our higher human culture is the result of this omnipresence of feelings.<sup>1</sup> As we have said, many other psychologists share this same conviction. Horwitz, therefore, comes at least close to the truth when he says: "All psychologists undoubtedly recognizes nowadays that all sensations possess different degrees of pleasantness or unpleasantness and that none of them is entirely neutral."<sup>2</sup>

Even in this connection, however, there arise difficulties. One could object that the hypothesis that every psychic activity is accompanied by a correlative pleasure or displeasure would necessarily lead to an infinite complexity of simultaneous acts, since pleasure and displeasure are themselves psychic activities. We have already anticipated and answered this objection. On the other hand, there remains another objection to be considered.

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<sup>1</sup>Mikrokosmos, I, 264 f.

<sup>2</sup>Psychol. Anal., I, 239.

Even though, to a very great extent, Wundt classifies pleasure and displeasure among sensations, he considers it nevertheless impossible that every sensation is accompanied by a feeling. His argument is as follows: "We characterize the sensory feeling as agreeable or disagreeable, as a feeling of pleasure or displeasure. Pleasure and displeasure, however, are opposite states which change into one another through a neutral point. This implies that there must exist sensations which are neutral, i.e., not accompanied by a sensory feeling." Granting that the premises are correct, the absolute possibility of a sensation without feeling would undoubtedly follow from them. It would not in any way follow, however, that such a sensation has ever existed even for a moment. This is what Wundt himself admits when he adds: "Since the relation of sensations to consciousness is subject to continual fluctuations, this neutral point generally corresponds only to a passing state of mind from which a transition to pleasure or displeasure easily takes place. For this very reason every sensation must be associated with a certain degree of feeling."<sup>1</sup> I myself seriously doubt that even the premises of this conclusion can be accepted. If between decidedly pleasant and decidedly unpleasant sensations there occur neutral sensations, the latter, according to J. S. Mill's opinion, should rather be considered as sensations which contain a mixture of pleasure or displeasure, so that neither of them is predominant over the other. The chief argument which

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<sup>1</sup>Physiol. Psychol., p. 426.

Wundt can advance in support of his conception is the dependence of the concomitant feeling upon intensity. According to him, if we eliminate the influence exerted by the connection of our images upon the feelings which are associated with each sensation, experience should show us that every sensation of moderate intensity is accompanied by a feeling of pleasure, and every sensation of very great intensity by a feeling of pain. He adds that in the case of a very weak sensation the feeling of pain is small and at first increases as the sensation itself increases. Then it reaches a high and turning point. Beyond this point, the feeling of pleasure decreases rapidly and, after passing through a neutral point, changes itself into displeasure which, as a result of further, continuous increase in the stimulation that accompanies the sensation, may reach an infinite magnitude. If this theory is correct, we should be able to verify it especially in the case of the higher senses, since they can be investigated with the greatest possible degree of accuracy. It is undeniable that a weak light in and by itself produces a weak feeling of pleasure, and that this feeling of pleasure increases considerably if the color of the light is more intense. If, however, the brightness exceeds a certain degree, there arises a feeling of displeasure which may become an intolerable pain, as when we look directly at the sun. At first sight, therefore, all evidence seems to confirm Wundt's conception. A more careful analysis of the available facts, however, dispels this impression. Wundt himself is forced to deny that the excessive pain, which he believes can be considered infinite, really depends upon the sensation of light. This sensation, in fact, has a quality which does not differ in any respect

from the qualities of other similarly painful sensations caused by means of other sensory nerves.<sup>1</sup> How does this happen? Has a color been transformed gradually into an absolutely heterogeneous quality through increases in the intensity of the sensation? This transformation does not seem less conceivable than a gradual metamorphosis of a color into a sound. Experience itself actually teaches us something entirely different. When the sensation of light becomes so intense as to produce a feeling of displeasure, we do not find the light phenomenon less beautiful. The sight of the sun or of electric light delights us, even though a pain is associated with it. There arises in us a conflict of desires, insofar as we would like to avoid the pain, without at the same time turning our eyes away from such a beautiful sight. In this case, therefore, we have a united feeling, or rather two different feelings which are associated with two simultaneous sensations. Even though mediated by the same nerve, these sensations are nevertheless different, indeed heterogeneous. It is for this reason that the displeasure

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<sup>1</sup>Ibid., p. 433. Wundt says that the most unpleasant feeling no longer shows "any qualitative differences," and explains this on the basis of the fact that the sensations have been completely fused into the feeling of displeasure. This observation is difficult to understand. In fact, according to his complete theory of feeling (Cf. p. 426, 427), we can hardly believe that he has intended to assert thereby that the elements of which "the sensation is composed in and for itself" have been completely eliminated. Nevertheless, if this were his opinion, he would have committed the same error for which we have previously reproached other psychologists, when we have shown that feeling is based necessarily upon an image. The conjectures which we have advanced then concerning the reasons underlying this error would be confirmed (See above, Book II, ch. 1, 3).



also appears analogous to the pains which are usually caused by the so-called sensory nerves. This displeasure does not have anything in common with the displeasure which, for example, is usually produced by a faded gray color, either by itself or in connection with other phenomena. Only the pleasure appears as an accrued joy caused by the sight of colors. With each further increase of the stimulation both the pleasure and the displeasure seem to me to grow simultaneously, but obviously in very different relations. At first, the beauty of the sight may make us disregard the unpleasant aspects of the second sensation; soon, however, the pain becomes so great that beauty does not entice us any longer, and there remains only the desire to avoid the pain. It is at this point that we at times characterize the sensation simply as disagreeable, even though, as long as there remains some traces of color, we will never call it repugnant. Upon closer analysis, therefore the phenomena which seemed to constitute the best confirmation of Wundt's theory serve best to refute it. What we have said of the feelings associated with visual sensations applies also to those associated with the other senses. Indeed, it is even more difficult here to isolate one sensation from another. Olfactory sensations, for example, are not merely odors properly called. While some of them result from the excitation of sensory nerves, others are connected with the lungs or the stomach, such as those which we experience in the phenomena that we are accustomed to call fresh or mouldy, or again in the phenomena of repugnant odors. Thus, we may assume that these phenomena involve a mixture of agreeable and disagreeable feelings, instead of a truly neutral state of sensation which is equally distant from pleasure and dis-

pleasure. Indeed, this assumption seems to be entirely probable.

This disproves the claim that it is necessary to admit from the outset, besides activities which are accompanied by feelings, psychic activities which are neutral. Are we in a position, however, to produce a positive proof that this third kind of inner consciousness is not less universal than those which we have considered previously?

Of course, we shall keep in mind the procedure followed above. We have explained the universality of concomitant images on the basis of the functional relation between their intensity and the intensity of the phenomenon which is accompanied by them. Can we, perhaps, explain the universality of concomitant feelings in the same manner? It is not difficult to recognize that this is impossible. Feelings, just like judgments, possess two kinds of intensity; one which is shared by the underlying image, and the other which belongs exclusively to them. In inner perception, we found that while the first kind of intensity varied with the intensity of the perceived act, the special intensity of the conviction remained always the same. The situation is different in the case of inner feelings. It is certain--and we have already touched upon this point in our preceding discussions--that the characteristic intensity of feeling, i.e., the degree of pleasure and displeasure, is dependent upon the intensity of the phenomenon which is agreeable or disagreeable. As we have seen, the intensity of inner perception is always equal to the intensity of the felt act; the same applies to the intensity which is shared by the inner feeling and its underlying image, but not to the intensity which is specific to the inner feeling. Indeed, it

happens that the same psychic phenomenon, for example, the same sensation, arouses entirely different feelings under different circumstances, that sometimes it pleases more and sometimes less, and that sometimes it causes pleasure and sometimes displeasure. When we play either the ascending or descending scale, we hear the same tones, but with different feelings; moreover, these differences stand out even more sharply when we change the succession of the notes. If the note fits with the context of the melody, it appears pleasant; if it does not, it will be accompanied by an unpleasant feeling, no matter how resonant it may otherwise be. If a melody is played in another key, each note gives the same feeling as the note which it replaces. The feeling which it produces, however, is entirely different from the feeling which was associated with it when it was first played. The same thing occurs in the field of colors. We say that certain colors go together, and that others are not congruent. While the former, whether seen simultaneously or in succession, produce an especially pleasant effect, the latter under the same circumstances, offend our eye. We shall speak later on of the phenomena of simultaneous contrast in which a color, even though absolutely unchanged in its appearance, looks like another color. Moreover, what is remarkable in this case is that the feeling which accompanies the sensation of color is changed. When we transpose a melody into another key, every note is accompanied by a feeling related to the feeling of the note which formerly occupied the corresponding place. In the same way we find that a color which is confused with another is accompanied by a feeling re-

lated to the feeling which this color usually arouses. For example, if we see a gray color as rose-red or green, this color appears unusually embellished and acquires entirely the characteristic attraction which distinguishes the corresponding color phenomenon. This much, therefore, is evident: even though the dependence of the intensity of the concomitant feeling upon the intensity of the psychic phenomenon which is accompanied by it cannot be denied, this intensity, nevertheless, is not the only factor upon which the former depends. Many other conditions should be taken into consideration; it is possible that some of these conditions are still absolutely unknown, and that others cannot yet be measured exactly as regards the magnitude of their influence. It is evident, therefore, that the universality of concomitant feelings cannot be proved in this way.

Consequently, we must appeal to simple experience. Indeed, this path, which was not open to us when we were dealing with inner imagination and inner perception, has been paved for us by our previous discussions. As long as it was not established that every psychic act was perceived by us, simple induction could not assure us that this or that mode of consciousness always accompanies our psychic activities. It would certainly have been ridiculous to investigate whether in the sphere of our inner perception there existed an act which escaped our inner perception. Now, however, we know that all our psychic activities belong also to the sphere of our perception. We are fully justified, therefore, to posit this question: does inner perception show us only activities which are connected with an inner feeling, or

does it also show us activities which are not so connected?

As we saw, such an excellent psychologist as Lotze, and other important psychologists, did not find any such activities. If we examine Wundt's statements, we see clearly that he has not found any psychic activity without a concomitant feeling. It is only through deduction that he reached the conviction that there had to be exceptions. Consequently, if we can show that this deduction is not based upon any sound foundation, we may expect that all opposition against the hypothesis of the universality of concomitant feelings stemming from it will be eliminated, and that such a hypothesis will find a welcome support through a new and valuable source of evidence.

7. Let us review the investigations of the two preceding chapters and briefly summarize their results.

Every psychic act is conscious; it implies the consciousness of itself. Every psychic act, no matter how simple, has a double object, a primary and a secondary object. The simplest act, for example the act of hearing, has for primary object sound, and for secondary object itself as a psychic phenomenon in which sound is heard. This secondary object is present in consciousness in a threefold way: it is represented, it is known, and it is felt. Consequently, every psychic act, even the simplest, may be considered under four different aspects. It may be considered as an image of its primary object, such as the act in which we perceive a sound is considered as an act of hearing; however, it may also be considered as an image of itself, as a cognition of itself, and as a feeling of itself. In addition, in the totality of these four relations, it is object not only of its self-image,

but also of its self-cognition and, if one may so speak, of its self-feeling. Thus, without any further complication and multiplication, the self-image is represented, the self-cognition represented as well as known, and the self-feeling represented as well as known and felt.

The intensity of the image of the secondary object is in every case equal to the intensity of the image of the primary object. The same thing is true of the intensity of the concomitant judgment and of the concomitant feeling, insofar as an image constitutes its foundation.

[The intensity which is proper to the cognition of the secondary object, i.e., the strength of the conviction with which it is perceived, remains unchangeable, but is always absolute.]

By contrast, the characteristic intensity of the concomitant feeling, i.e., the degree of pleasure or displeasure, does not show the same regularity. It is neither constant, as is the strength of the conviction in inner perception, nor increases or decreases in regular proportion with increases and decreases in the intensity of its correlative image. While it is dependent upon the intensity of this image, at the same time it is also dependent upon many other factors which, insofar as we can give an account of their influence, will form the object of a later investigation. An original difference in aptitudes, differences in acquired dispositions, differences in the connection with other phenomena are added here as factors to the intensity and quality of the primary object, as well as to the differences of the relations with this object, so as to make this field one of the most varied and diversified fields of investigation.

## CHAPTER IV

### ON THE UNITY OF CONSCIOUSNESS

1. Our investigation has proved that every psychic activity implies a certain multiplicity and complexity. Even in the simplest psychic state a double object is immanently present. At least one of these objects is conscious in more than one way: it is not simply the object of an image, but also of a judgment and a feeling. As we have seen, however, lack of simplicity does not mean lack of unity. The consciousness of the primary object and the consciousness of the secondary object are not distinct phenomena, but two complementary aspects of one and the same homogeneous phenomenon; and the unity of the psychic act coexist with the different modes of consciousness of the secondary object. We conceive and must conceive them as parts of a homogeneous real being.

In reality, such a simple state never occurs. It frequently happens, instead, that we have simultaneously present in us a rather large number of objects with which we establish many varied relations of consciousness. The following question, therefore, must still be answered: in the case of such a great number of psychic phenomena, is there always a real unity which encompasses all of them? Do all these phenomena belong as part-phenomena to a really homogeneous whole, or are we confronted here with a multiplicity of things, so that the totality of the psychic state must then be considered as a collective reality, as a group of phenomena, each of which is a thing in itself or belongs to a particular thing?

[I believe that the formulation of this question is clear. Nevertheless, since misunderstandings are very common in this connection, I shall not dispense with offering some short explanatory observations. It is impossible that something is at the same time one real thing and a multiplicity of real things. This has been stated by Aristotle himself,<sup>1</sup> and since then it has been asserted repeatedly and with good reason. We can, of course, group together a multiplicity of objects and designate their sum with one name, as when we say "herd" or "vegetative realm." The objects thus grouped, however, are not thereby one thing. What the name designates is not a thing, but a collective whole. A city, indeed each house in a city, each room in the house, the floor of each room, which is composed of many boards, are also examples of collective wholes. Perhaps, the board itself is only a collective whole composed of many elements, whether they are points, or invisible atoms or larger units. It is not our concern here to investigate this question. One thing, however, is certain: without some real unities there would not be any multiplicity, and without a multiplicity of things there would not be any collective whole.<sup>2</sup>

Nevertheless, even though it is clear and obvious at first sight that a thing can never be a multiplicity of things, this does not mean that no multi-

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<sup>1</sup>Metaph., Z, 16.

<sup>2</sup>It is hardly necessary to point out that the meaning which we give to the concept "collective" is different from that which is assigned to it by grammarians. Likewise, the reason why we do this is self-evident.



licity can be distinguished in it. Unity and simplicity-- Aristotle himself again has emphasized this point<sup>1</sup>-- are two concepts which cannot be interchanged. Even though a real thing cannot contain a multiplicity of real things, it can nevertheless contain a multiplicity of parts. A clear example of this is found in those relatively uncomplicated psychic states discussed in the preceding chapter. The object of the primary, and of the different modes of the secondary consciousness was a thing, but obviously not an absolutely simple thing. Naturally, just as we can attribute one and the same name to a plurality of things taken together, we can also consider and designate each part of a thing as something in itself. However, just as in the first case the object to which the term is applied is not a thing, but a mere collective whole, so also in this case the object in question will not be a thing. Consequently, in the absence of a common and un-equivocal term (since the term "part" is applied also to real things with regard to collective wholes) we shall call this object divisive.]

In view of this, we can re-formulate the question stated above in a more concise form: in the case of more complex psychic states, do we have to admit a collective group of things or, just as in the simplest states, does the totality of psychic phenomena in the most complex states form one thing in which we can distinguish divisive elements as parts?

2. An analysis of the image of a sound or a color, instead of a relatively simple state, reveals a double kind of complexity. In the first place,

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<sup>1</sup>Metaph., A, 7.

the same primary object can be present in consciousness according to different modes, as for example, when we not only represent an object, but also desire it. In the second place, an even greater complexity can arise from the orientation of our psychic activity toward several primary objects, as for example, when we see and hear at the same time. Both kinds of complexity can also occur simultaneously, thus causing an even more complex psychic state. It is clear, however, that what is true of the cases in which there is only one mode of complexity, applies also to this last case. If neither of the two modes of complexity excludes real unity, both taken together will not exclude it either. Consequently, psychic phenomena which are simultaneously present in our consciousness constitute a real unity.

This hypothesis is not without difficulties. If our simultaneous psychic acts were always mere divisive elements of one and the same reality, how could they be independent from one another? But this is actually the case, since neither the appearance of these acts in consciousness nor their disappearance from it shows that they are connected with one another. We can see without hearing; if by chance we see and hear at the same time, it is possible that we stop seeing while continuing to hear. In this instance of complexity, the independence of the psychic acts is reciprocal; in the following instance, it is at least unilateral. I can only desire something when and as long as I represent it, but I can represent it without desiring it. It may happen that I represent something long before beginning to desire it, and subsequently my desire may cease or even change into aversion while my image remains directed toward this very same object.

Furthermore, if we compare the relation between simultaneous acts of seeing and hearing with the relation which we have previously considered between the different forms of inner consciousness, we see immediately and unmistakably that the latter is incomparably more intimate than the former. Between seeing and hearing there does not exist any kind of reciprocal connection like that between the three moments of inner consciousness, each of which is related to the others as its own object. If, like the three forms of inner consciousness, seeing and hearing were encompassed by the same real unity, their connection would be so intimate as to foreclose any difference between them. It is obvious, in fact, that nothing can possess a higher unity than that which is really one by nature. It follows, therefore, that the totality of a complex psychic state must be conceived as a collective whole.

Nevertheless, there are many reasons which indicate that also in this case we have a real unity instead of a collective whole. In particular, we cannot conceive the complexity which arises when one and the same primary object is present in consciousness according to different modes (as for example when something is simultaneously represented and loved) as a collective whole, i.e., as an aggregate of different things. It seems to us absolutely absurd that something can be loved without being represented; and we are fully justified in considering this as contradictory because, as we have previously shown, an image underlies every other mode of consciousness and is

contained in it.<sup>1</sup> If the act of representing and the act of love were two separate acts, two separate realities, and if only by chance one were the cause of the other, it would be possible for this cause to be replaced by another, so that we could love what is in no way represented. Connected with love, therefore, there must always be an image of the loved object, which forms with it a real unity. If, nevertheless, we did assume that the image, inasmuch as it often persists after the disappearance of love, must be a separate reality, we would be compelled to say that the object, when we loved it, was represented twice, which is false and contrary to experience.

Even when we turn our attention simultaneously toward several different primary objects, for example when we see and hear at the same time, we do not lack reasons which make it possible for us to assert that both phenomena belong to the same real unity. It happens that we compare a color which we see with a sound which we hear; indeed, we do this every time we recognize that they are different phenomena. How could we conceive this image of their difference, if the images of color and sound belonged to different realities? Should we attribute it to the image of color or to the image of sound, or to both of them taken together, or to a third reality? Obviously neither to the image of color nor to the image of sound taken separately, because each of them excludes one of the two objects which are compared; nor, for the very same reason, to a third reality, unless we admit that the

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<sup>1</sup> Book II, ch. 1, 3.

images of color and sound are repeated and united in it. Should we, therefore, attribute such an image to both of them taken together? Such an assertion is patently ridiculous. It would be the same as saying that the blind and the deaf cannot compare in any way colors and sounds, but that, since one of them sees and the other hears, together they can recognize their relation. Why does this appear to us so absurd? Because while on the one hand the cognition by means of which we compare two objects is an actual real unity, on the other, when grouping together the activities of the blind and the deaf, we always obtain a mere collective whole and never true unity. Obviously, it does not make any difference whether the blind and the deaf are far from, or near each other. Indeed, even if they lived together in the same house, even if they grew up together as intimately as, or even more intimately than Siamese twins, the hypothesis would not thereby become more plausible. It follows that sound and color can be compared only when they are represented in one and the same reality. In addition, we not only make comparisons among different primary objects; we likewise establish varied relations among them in our thoughts and desires. In order to achieve our goals, we choose the necessary means, organizing and combining them into elaborate projects. If we considered the different terms of our thoughts as separate things, all these arrangements and combinations would dissolve into a multiplicity or rather would be reduced to nothing. Does not the desire of the means include the desire of the goal, and consequently does it not contain together with the image of the means also the image of the goal?

Does not the unitary act of choice contain necessarily the images of the objects of choice and of the motives which support this or that object? All this is so evident that it would be superfluous to pursue the discussion further.

We arrive at the same result when we consider the inner aspect of consciousness. When we represent or desire something, or when we represent simultaneously different primary objects, we are not only conscious of the different activities, but also of their simultaneity. When we hear a melody, we recognize that one note is present, while another is past; when we are aware of seeing and hearing, we are also aware that we perform both activities at the same time. Consequently, if the images of seeing and hearing are contained in two separate things, in which of them is the image of their simultaneity contained? Obviously in neither one of them. On the contrary, it is clear that the inner cognition of one and the inner cognition of the other must belong to the same real unity. On the basis of our previous investigations, however, we know that what applies to the inner cognition of psychic activities applies also to these activities themselves. Consequently, it seems that we are justified to conclude that neither kind of complexity can ever prevent us from considering the totality of our psychic activities as a real unity.

The last opinion is unquestionably the correct one, and the arguments which we have advanced can in no way be refuted. The opposite arguments lose all their strength when we bring out the real point of the question.

It is not a question of whether simultaneous psychic activities are all really identical. In opposition to conceptual identity, real identity implies actual identity. Thus everyone is really identical with himself. By contrast, the identity of different men as men is a conceptual identity, and not a real identity. In this connection, it does not matter whether that which is called identical with something is a thing, a divisive object, a collective whole, a privation or the like, as for example when we say that blindness is a defect, and a herd a group of animals of the same species. As we have already said, we are not dealing here with a real unity. Moreover, it is evident that such real unity does not exist in general between our simultaneous psychic activities, and that it will never be found between the different aspects which we have previously distinguished in the simplest psychic acts. The perception of hearing is not the feeling of hearing. They are two divisive elements of the same reality, but they are not thereby really identical with it and therefore with one another. A real thing, which, together with other things, is comprised in a collective whole, is not identical with this collective whole or with another thing which belongs to it - no one, in fact, will likely say that the Army is a soldier or that one soldier is another soldier. Likewise, a divisive object, which I distinguish as a part in a real thing, cannot be called identical with this thing and consequently with the other divisive objects which can be distinguished in it. A divisive object is never really identical with another divisive object, for otherwise

it would not differ from it, but would instead be one and the same divisive object; together with it, however, it belongs to one real thing. And it is this common belongingness to one real thing which constitutes the unity of which we are speaking here.

This analysis should remove the danger of a confusion which could easily result from the terminology we have inherited from the Scholastics, and thus enable us to answer immediately the objections.

As stated above, nothing can possess a higher unity than that which is really one. Consequently, if the totality of our simultaneous psychic activities were a real unity, it could not happen that the connection between some of them is less intimate than the connection which exists among others, especially among the different modes of inner consciousness. We have here a clear example of the confusion to which we have referred above. The relation of real identity is necessarily always the same wherever it is actually present; it does not matter whether it is a thing, a collective whole, a divisive object, or any other reality which is considered identical with itself. None of them is more identical with itself than the others. The relation of the parts which belong to a real unity, instead, is different. [If there actually exist small unitary things, such as those which have been called atoms, the relation among the different properties of these atoms cannot be the same as the relation among the different quantitative parts which are contained as divisive objects in even the smallest invisible atom. It is said that the quantitative parts of such an atom cannot be



separated from it, and that some of its qualities cannot be lost. It is clear, however, that this is not true of the other properties, even though they, too, cannot be considered as things in themselves. Such an atom, for example, passes from a state of rest to a state of motion, and conversely. Nevertheless, when it is in motion, motion itself is not a real thing in itself; otherwise it would be conceivable that it could continue to exist apart from the atom. I do not want to assert thereby that the atomistic theory is true; nor do I want to refer to the relations among the different properties of atoms as an example derived from reality. My aim is simply to show on the basis of a popular hypothesis that, when we are dealing with parts which belong to one and the same reality, we can conceive that they may be connected with one another in many ways and more or less intimately. ]

It is possible, therefore, that between the different parts which we distinguish in the totality of our psychic states, the modes of union are very different, even though they all belong to the same unitary thing as divisive objects.

The act of hearing is certainly connected more intimately with the triple consciousness of hearing than with the simultaneous act of seeing. Insofar as the image and perception of hearing change only in function of hearing, while the concomitant feelings also changes because of other factors, we could say that even in this triple consciousness the connection is not equally intimate. We could likewise assert that activities, directed toward the same primary object and of which one is based upon the other,

such as desire upon the corresponding image, are more intimately connected than activities directed toward different primary objects. The simultaneous images of the words of a sentence which I have just heard appear more intimately connected than the simultaneous sensations of different senses; and we could point out many other differences of intimacy in the union of simultaneous psychic activities. The existence itself of these differences is indeed worth noticing and may be of considerable importance in many respects, especially in regard to the laws of association of ideas. It is clear, however, that we cannot derive from it any cogent argument against the assertion that ideas belong to one and the same real unity.

The preceding analysis refutes the second argument against the real unity of more complex psychic states.

This same analysis also refutes implicitly the first argument which is based upon the independent appearance and persistence of certain psychic activities. That which is really identical excludes all separation, since this would mean that a thing can be separated from itself. That which belongs as a distinct part to a real whole, however, may perhaps disappear without contradiction, while the other parts continue to exist.

3. Our investigations lead to the following conclusion: the totality of our psychic life, as complex as it may be, always form a real unity. This is the well-known fact of the unity of consciousness which is generally considered with good reasons as one of the most important tenets of psychology.

Frequently, however, this tenet has been misunderstood by both its supporters and its opponents. In view of this, we want to expound once again in clear and exact terms what the unity of consciousness is, as well as what it is not.

As clearly revealed in inner perception, the unity of consciousness consists in the fact that, no matter how different the psychic phenomena which are found simultaneously in us may be, such as seeing and hearing, imagination, judgment and reasoning, love and hate, desire and aversion, etc., if they are innerly perceived as simultaneous, they all belong to one and the same reality; as part phenomena, they constitute a psychic phenomenon, the elements of which are neither distinct things nor parts of distinct things, but belong to a real unity. This is the necessary, but sufficient, condition for positing the unity of consciousness.

When we teach the unity of consciousness, therefore, we do not maintain in any way that different groups of psychic phenomena, which do not belong to one and the same reality, can never be connected with one and the same organism. We find such a relation in corals in which innumerable animalcules appear to be incorporated in one and the same stem. The simultaneous psychic phenomena of the different animalcules do not form a real unity. By the same token, however, there is no inner perception which apprehends their simultaneous existence. Consequently, it would not be in any way contrary to our definition if inside my body, besides my own self, there was another self, as if my body were possessed by one of those evil spirits of whose

exorcisms the Scripture so frequently gives an account. There would be no real unity between the consciousness of this spirit and my consciousness, but neither would I apprehend immediately in inner perception its psychic phenomena together with mine. The same would apply if my body, according to Leibniz's opinion, were actually a mere aggregate of an infinite number of monads, i.e., substances which are really different from one another and endowed with some kind of psychic life. My inner perception would not extend beyond my own self, the dominant monad. This theory may be true or false, but in any case it does not contradict the unity of consciousness, as it is revealed to us by inner perception.

Furthermore, the unity of consciousness does not mean that consciousness, as it really exists, excludes every plurality of parts of any kind. On the contrary, we have already seen that inner perception, which is infallible, reveals to us a variety of distinct activities. Herbart, of course, was of the opinion that every being must be simple. According to him, only a collection of things can have a multiplicity of parts; a non-simple being would violate the principle of contradiction which must be considered universally valid. We fully agree with Herbart on this last point. To question in any way and in any connection the principle of contradiction would imply a rejection of an immediate evidence which is more certain than any demonstration. The very same thing, however, applies to the facts of our inner perception. The great error of Herbart, and before him of Kant, was that they based their investigations upon the conception that the phe-

nomena of inner perception, just as the phenomena of the so-called external perception, are not real beings, but instead mere appearances of real beings.<sup>1</sup> If Herbart had conceived psychic phenomena as real beings, he would have noticed the incompatibility of his metaphysical theory with the facts of inner perception, and would have paid attention, in this context as well as in other passages, to certain gaps and equivocations in his argumentation. Moreover, it would not have been necessary for another keen philosopher to show that the contradictions postulated by him are merely apparent contradictions.<sup>2</sup> In asserting the real unity of consciousness, therefore, we do not thereby assert in any way that consciousness is an absolutely simple reality; we only assert that the parts which can be dis-

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<sup>1</sup>According to Herbart, the being which is revealed by psychic phenomena is the soul, i.e., a simple real essence with a simple quality, which, in opposition to other simple real essences, is self-subsistent. What appears to us as an image, in reality is nothing else but this subsistence. Consequently, the plurality of images which we perceive in us does not postulate in any way a plurality of properties and parts of any kind in our true being. At least this seems to be the way in which Herbart's doctrine must be interpreted in order to eliminate the most glaring contradictions between his metaphysics and his psychology. Or perhaps should we assume that Herbart believed that our images are nothing else than self-subsistent qualities, which remain unchanged in spite of all threats of interruption, but that nevertheless they are what they appear to us? In this case Herbart would either have been guilty of the most obvious contradiction or would have denied in the most categorical manner the evidence of inner perception.

<sup>2</sup>Cf. Trendelenburg, Historische Beiträge zur Philosophie, II, 313 ff.

tinguished in it should be considered as mere divisive elements of a real unity.

Similarly, we would not be justified to say that, although the unity of consciousness does not require simplicity, it can nevertheless be reconciled only with a plurality of parts which are inseparable from one another. On the contrary, as revealed by experience, we have seen that some of our activities often cease while others persist, that some of them change while others do not undergo any change.

Furthermore, it is necessary to emphasize that the unity of consciousness does not exclude either a plurality of quantitative parts or spatial extension (or an analogous property). It is certain that inner perception does not show us any extension; there is a difference, however, between not showing something and showing that something does not exist. Otherwise, we would have to consider as fair the sentence of that judge who, as the story goes, acquitted the defendant of the charge of insult because the plaintiff pledged himself to produce five witnesses who had heard the insult, while the defendant himself promised to bring in one-hundred who had not heard it. It is by all means certain that we cannot conceive the psychic activities which belong to the unity of our consciousness as quantitatively divided. Vision certainly cannot belong to a quantitative part of our consciousness, while another part would contain the correlative inner image or perception or pleasure produced by vision. This would contradict all that we have said

concerning the particularly intimate connection and close union of these phenomena. It is likewise clear that an image is never contained in a quantitative part of our consciousness, while the judgment or desire bearing upon the object of this image are contained in another part. In this case, there would be no image at the basis of judgment and desire, which is contrary to the evidence of inner perception. On the other hand, we do not have any reason yet to contest the claim that perhaps an image is extended, or that different images co-exist in space, etc.

When we dissect a worm, each section often shows the most indubitable signs of spontaneous movement, and consequently of feeling and images. Some thinkers, among whom Aristotle himself, have explained this fact by asserting that the soul of the animal is dissected at the same time as its body. The unitary consciousness of the dissected animal, therefore, must have been in some way spatially extended. Others rejected this hypothesis in favor of the assumption that even before the dissection there existed different souls in each section of the worm. We do not want to investigate at this point to what extent the latter have succeeded in making their view probable; we shall postpone the discussion of this question to a later part of this work.<sup>1</sup> It will be sufficient at this point to mention that, if, as some authors have actually done, we wanted to invoke against the ancient theory the fact of the unity of consciousness, this argument would of itself be altogether inadequate. We have seen that the unity of consciousness can be reconciled with

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<sup>1</sup>Book VI.

a plurality of activities which are in no way inseparably connected with one another. A plurality of separable quantitative parts, therefore, would not contradict such a theory.

Just as the unity of consciousness does not exclude the plurality of parts, so it does not exclude their variety. What is necessary is not that the parts be of the same nature, but only that they belong to the same real unity. We have already discovered that the totality of our consciousness encompasses not only a plurality of psychic activities, but also activities of a very different nature, not merely images, but also feelings. Unity means neither simplicity, nor divisibility into equal parts. Up to now, therefore, anyone who wanted to consider the totality of our psychic phenomena as extended could safely assume that the quantitative parts are heterogeneous and reveal themselves as such in our psychic phenomena. We do not intend to assert that this or a similar hypothesis is true. Even if it were true, it would not in any way disprove our theory of the unity of consciousness. We saw, in fact, that this unity encompasses in any case a plurality of parts which are connected with one another by manifold part-relations.

Finally, the unity of consciousness does not imply that the psychic phenomena, which we customarily designate as our past psychic activities, were parts of the same actual reality that encompasses our present psychic phenomena. One thing is beyond any doubt: just as inner perception shows us directly only a really unitary group of psychic phenomena, so, for each



moment of the past, memory shows us directly only a similar group of phenomena. Of the other simultaneous psychic phenomena memory gives us only an indirect knowledge, by showing us that there existed within each group a knowledge of these phenomena, just as the group of phenomena revealed by inner perception can also contain the belief in the existence of other groups. Memory, therefore, shows us directly only one continuous series of groups of psychic phenomena, each of which has been a real unity; and this series forms a continuum which is only interrupted now and then by some gaps. Through further reflection, we do occasionally succeed in filling these gaps. The continuity of the series also implies at the same time a certain affinity between successive groups, either a perfect equality with only a temporal difference, or a differentiation gradually increasing through infinitesimal differences. In fact, it is unthinkable that a continual modification contains at any moment a gap of finite magnitude or a transition to absolutely heterogeneous phenomena. In reality, we usually find some relationship between the earlier and subsequent elements of a series even after the most pronounced sudden modifications. Thus, immediately after the beginning of a greater modification, our memory makes us aware of the opposition between the new and the previous state. In other cases, we may even say generally, our memory shows us an act which often belongs to a very distant element of the series, but never directly to a group of phenomena which does not belong to the series. The final element of the series forms the group which we apprehend directly in inner perception. We

usually designate this chain of psychic phenomena as our past life. Just as we say: "I see", "I hear", "I want", when these phenomena are revealed in inner perception, we also say: "I saw", "I heard", "I wanted", when the same kind of phenomena appear directly in memory. Generally, therefore, we consider the phenomena which memory reveals to us directly as activities belonging to the same real unity which now embraces the activities known through inner perception. It is easy to understand the tendency toward such a conception in view of the nature of these phenomena of memory, as we have described in some of its most essential features. Nevertheless, we cannot thereby assert that the same real unity which embraces our present psychic phenomena was also present in the case of those which we usually call "our past" psychic phenomena. None of the proofs by means of which we have established the real unity of present psychic phenomena applies here. Our present acts of memory must undoubtedly belong to the same reality as our remaining present psychic acts. The content of a memory act, however, is not the act of memory itself. In view of this, it would seem that they cannot be ascribed to the same real unit. If a cognition given by our memory were immediately evident, we could draw this conclusion, as we do in inner perception. As is known, however, memory not only lacks evidence, but in addition is subject to many deceptions. For the present, therefore, it remains an open question whether the persistence of the self is the continuance of one and the same unitary reality or simply a succession of different realities

linked together in such a way that, so to speak, each subsequent reality takes the place of the reality which preceded it. Consequently, the belief that the self is a corporeal organ which forms the substrate of continuous substantial changes would not contradict our previous statements, provided that whoever might hold such a belief admit that the impressions experienced by such an organ exert an influence upon the way in which it renews itself. Thus, just as a wound leaves a scar, the past psychic phenomenon would leave as an after-effect a trace of itself and with it the possibility of a remembrance. The unity of the self in its past and present existence, therefore, would be the same as the unity of a river in which one wave follows another and initiates its movement. The only hypothesis that would have to be excluded by those who might consider an organ as the substrate of consciousness would be the atomistic hypothesis which considers each organ as an aggregate of different realities. At best, as Du Bois-Reymond did in his communication to the convention of natural scientists in Leipzig, the only value that they could ascribe to this hypothesis would be to consider it as some kind of methodological principle in the field of natural sciences.<sup>1</sup>

4. According to our conception, the unity of consciousness has a more restricted content than that which has often been attributed to it. The preceding discussions, however, prove conclusively that such unity exists and vindicate it not only against the objections based upon the arguments

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<sup>1</sup>Über die Grenzen der Naturerkenntnis, 1872.

which were discussed above, but also against those based upon arguments which we are now going to examine.

C. Ludwig declares that the real unity of our psychic phenomena runs into an "absolutely insoluble difficulty." "As we have already pointed out repeatedly," he writes, "there are no reasons which could induce us to admit an essential difference in sensory and motor nerve fibers. In the absence of such a difference, therefore, how can we explain the dissimilarity in the effects of the reactions of homogeneous nerves and of a homogeneous soul? -- This difficulty urges us at the very least not to forget that the so-called soul is a very complicated structure made up of different parts which are intimately connected with one another, so that the states of one part communicate themselves easily to the whole."<sup>1</sup>

Let us grant that this argument of Ludwig is absolutely convincing and implies forcibly the conclusion with which it ends. The real unity of consciousness, as we have explained it, would not thereby be refuted in any way. If this unity had quantitative and heterogeneous parts and were a very complicated structure, it would satisfy Ludwig's requirements. Undoubtedly, we could claim that such an assumption is impossible on the basis of the atomistic hypothesis. This hypothesis, however, irrespective of all the arguments that might be advanced in its favor, would not be in a position to defend its probability against the evidence of inner facts.

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<sup>1</sup>Lehrbuch der Physiologie des Menschen, I, 606.

Ludwig also speaks of a communion of the states of each individual part with the whole, that is, if we understand him correctly, with all the remaining parts of this whole. Every part, therefore, will have the same states as the others. Thus every part will see, hear, etc., even though one part is first stimulated by light and the other by sound. Even if the whole were a collective reality and only the parts were real unities, each of these parts would nevertheless contain in itself alone a group of psychic activities, as we apprehend them through inner perception. It would not be necessary, therefore, that our inner perception should extend beyond a real unity. Indeed, this would not even be probable, since in this case inner perception would only reveal repeatedly the same group of psychic activities. According to Ludwig, therefore, besides our unitary consciousness, there would also exist in the same body other consciousnesses which are absolutely similar to it. Again, this would not contradict the unity of consciousness in our sense of the term.

The argument itself, however, is perhaps not as cogent as Ludwig believes. This author asserts that no essential difference has yet been discovered in the nerve fibers. Are we thereby certain that no difference will ever be discovered? Moreover, can we safely assert that differences which appear insignificant in another respect are perhaps not "essential" with regard to sensations? Recently, some physiologists have claimed that there were no essential differences in the ganglia, and that consequently the dif-

ferences of the external organs should be considered as the sole basis for the differences observed in sensations.<sup>1</sup> Irrespective of its admissibility or inadmissibility, this hypothesis shows that the argument is weak. In fact, if we admit it, we are confronted with the fact that physiological differences which can escape our observation or appear insignificant are nevertheless of great importance. Finally, it would be conceivable that the variety of central images produced by the sensory nerves actually caused the differences of visual and auditory sensations, but only to the degree to which we would ascribe the cause of these differences to the nerves themselves, if they appeared conspicuously different, namely as links of a chain

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<sup>1</sup>Wundt, Phys. Psych., ch. 5, p. 173 ff., and ch. 9, p. 345 ff. "It is highly probable," he writes, "that the principle of functional indifference, to the extent to which it is admitted with regard to the nerve fibers, must likewise be extended to their central endings. The differences which are found in the latter are not greater than those exhibited by the different kinds of nerves. In addition, when different nerve endings become entangled in the healing process, we can subsequently release motor reactions by stimulating sensory fibers. This experimental phenomenon implies numerous reciprocal substitutions among central nerve extremities as closely equivalent facts. Obviously, by transferring in this manner the seat of specific functions to the central nervous system, we have simply resorted to the artifice of relegating such a seat to a sphere which was still sufficiently unknown in order to risk any hypothesis of our own choosing" (p. 347). Wundt's own explanation of these facts, however, contains a contradiction. On the one hand, Wundt begins with the premise that the physical similarity of nerves (indeed, of nerve endings) is too great to enable us to consider their difference as the reason for the specific function. On the other hand, however, he concludes that the reason for the specific function is actually to be found in a difference of nerves, namely a difference acquired through habit.

which prolongs itself.

Like many others, A. Lange claims that the phenomena of division by means of which an animal can often be dissected into two animals, and the opposite phenomena of fusion of two animals into one animal, are incompatible with the unity of consciousness. "The Radiopods," he says, "the descendants of the Vorticella, often approach each other, and attach themselves intimately to each other. At the place of contact there arises at first a flattening and subsequently a complete fusion. A similar process of copulation occurs in the Gregarines. Siebold found that even a worm, the Diplozoon, is formed through the fusion of two diporpes."<sup>1</sup>

We have already pointed out that the phenomena of division, even if they should compel us to admit the decomposition of a group of psychic phenomena into several quantitative parts, would not prove anything against the unity of consciousness, since we do not assert either the simplicity or the indivisibility of consciousness. For the same reason, the phenomena of fusion cannot be used as evidence against this unity. Similarly, if we attributed memory to these lower animals, and admitted that each of the two animals resulting from division remembered the life of the dissected animal, so that now the same consciousness would be composed of two qualities, this would not speak against the unity of consciousness in our sense of the term. Of course, if we had asserted that the psychic activities revealed directly

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<sup>1</sup>Gesch. d. Material., p. 409.

by memory always belong to the same reality which is apprehended in inner perception, we would have to conclude that two groups of phenomena belong to the same reality, and simultaneously that they should be conceived as two distinct realities, which is contradictory. Our assertion, however, was restricted to activities revealed by inner perception, and consequently does not imply these contradictory conclusions. Likewise, if we admitted that the single animal resulting from the fusion of several animals has memories of a double life, this would not contradict the unity of consciousness. In this case, memory would indeed reveal directly a plurality of simultaneous real psychic unities, but the horizon of inner perception would never extend beyond the boundaries of a single real unity.

It is peculiar that Lange on the one hand asserts that certain facts contradict the unity of consciousness, and on the other recognizes that a group of psychic activities, such as we find them in ourselves, cannot be conceived without real unity. Thus he is victim of a contradiction which recalls Kant's antinomies, and which he solves as a true disciple of this philosopher by attributing to the contradictory phenomena only a phenomenal truth. According to him, to avoid the contradiction between unity and plurality, we must admit that neither unity nor plurality actually exist, but that both concepts are only subjective constructs of our thinking. "The only escape," he says, "consists in conceiving the opposition between plurality and unity as a consequence of our organization, in assuming that in the world of things-in-themselves this opposition is resolved in some way unknown to us, or



rather does not exist at all. In this way we eliminate the very core of the contradiction. Basically this contradiction consists in the assumption of absolute unities which are nowhere present in us. If we conceive all unity as relative (i.e., relative to our thinking, indeed, to this or that particular act of thinking), if we see in unity only a mental synthesis, we have not thereby apprehended the true essence of reality, but we have certainly made possible the consistency of the scientific view." (In other words, in spite of the contradictions which we encounter nowadays, we could confidently pursue our investigations by considering them as mere phenomenal contradictions which are in no way related to reality). "Of course, this solution is inconsistent with the absolute unity of self-consciousness, but it is not a misfortune to get rid of a conception that has been cherished for some thousand years."<sup>1</sup>

Of course, if the phenomena of inner perception had only a phenomenal truth, we would not be able to assert the unity of consciousness. We would not even be able to ascertain the existence of consciousness. We have already pointed out repeatedly, however, that Kant and, in his footsteps, Lange follow a false path. It is absolutely contradictory to attribute a mere phenomenal truth to both inner and external perceptions, as Kant does since the phenomenal truth of physical phenomena requires the real truth of psychic phenomena. If psychic phenomena did not exist in reality, both physical

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<sup>1</sup> Ibid., p. 405.

and psychic phenomena would not even exist as phenomena. The contradiction, therefore, cannot be removed in this way. On the other hand, we have already seen that the phenomena invoked by Lange can very easily be reconciled with the fact of the unity of consciousness, provided that we understand it correctly.

Lange also places special emphasis upon another phenomenon. "Among lower animals, "he says, "relative unity occurs in a particularly remarkable form in those polyps that possess a common stem on which there appears by gemmation a mass of creatures. In a certain sense, these creatures are to be considered independent, but in another respect they must be regarded only as organs of the entire stem. We are led to the assumption that in these beings even voluntary movements are partly of a general, and partly of a special nature, that the sensations of all these semi-independent stems are related to each other and yet have their own special operation. Vogt is quite right when he considers the controversy concerning the individuality of these beings as entirely futile. There occur gradual transitions; the individualization increases by degrees."<sup>1</sup> It is obvious that the psychic activities in a polypary cannot be conceived as a real unity. Consequently, are we to consider them as a transition between unity and multiplicity, as a reality which is no longer one and as yet is not many? I do not see any reasons which would compel us to admit such a highly contradictory reality

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<sup>1</sup>Ibid., p. 409.

and prevent us from considering the polypary as a plurality of real psychic unities which co-exist in the same stem. Lange's statement that in polyps "the voluntary movements are partly of a general, and partly of a special nature" can be considered as a true explanation of this phenomenon only in the sense in which we could also apply it to a mass of people who belong to a city or a nation. As Lotze pertinently remarks, in such a colony of animals each individual consciousness is independent of the others in the execution of the rare manifestations of life which are possible to them. All these consciousnesses, however, "by reason of their mutual connection are subject to many common external influences."<sup>1</sup> It is possible that these common influences produce the simultaneous excitation of certain common desires and activities. Thus we are not faced with any contradictory concepts which would compel us to sacrifice our confidence in inner experience and in the conclusions we deduce from it by means of trustworthy analogies.

Lange concedes that, if we assumed that psychic phenomena as revealed by inner consciousness are real, we would have to conceive them as a real unity. C. Ludwig, on the contrary, has denied this and has thereby rejected as invalid the arguments advanced by psychologists in support of the unity of consciousness. Just as we did with regard to the attack of this eminent physiologist against the unity of consciousness, it is perhaps not superfluous to discuss briefly his attack against the proofs of this unity, to

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<sup>1</sup>Mikrokosmos, I, 166.

the degree to which we ourselves have considered them convincing.

Ludwig reproduces these proofs in the following way. The assumption, he says, that sensation, volition and thought processes belong to a real unity seems plausible "because consciousness asserts that it fulfills in a simple way these three special functions." Although this statement is not very clear, Ludwig apparently believes that such an assumption is based upon the fact that one and the same consciousness is aware of these functions. This is indicated by the very next statement in which he proceeds to its critique in the following vein: "It seems that this fact does not prove anything as long as we have not discovered which position consciousness occupies with regard to the three functions, since we might be inclined to think that these functions belong to the same consciousness without being identical with it." The meaning of this statement is obviously as follows: we can only conclude from this fact that the three functions belong to one real unity, inasmuch as we can apply here the principle that two things which are identical with a third are identical with one another. Ludwig, however, thinks that this hypothesis is unjustified. He argues that, since in other perceptions, e.g., in visual perceptions, we perceive something which does not belong to the same reality as perception itself, there is no reason why the same thing should not take place in inner perceptions, i.e., in the perceptions of psychic functions. "Even dream phenomena," he adds, "enhance the probability of such a view, because in dreams our own sensations and images appear to us as sensations and images which are absolutely external, as shown, for example,

by the fact that we converse with them."<sup>1</sup>

If we recall our earlier discussion, we see immediately that Ludwig's formulation of the argument in favor of the unity of consciousness is very incomplete. For example, Ludwig does not mention at all that volition is necessarily based upon an image, being altogether inconceivable without it, even though it is precisely this circumstance which constitutes a striking proof of the unity of these two activities. In addition, he gives an inexact presentation of the facts when he implies that the assumption that the inner perception of a psychic activity and this activity itself belong to the same real unity is entirely arbitrary. As we have seen, this assumption is based upon many proofs and especially upon the fact that all other hypotheses are inconsistent with the evidence of inner perception. In reality, therefore, we have already produced the proof required by Ludwig that the psychic function perceived in inner consciousness and this consciousness itself must belong to the same real unity. Finally, it will be sufficient to state that Ludwig's reference to dream phenomena to prove that sensations and images do not belong to the same reality as their correlative consciousness has no demonstrative value.

First of all, it is certainly odd to conclude that our sensations and images are really external because they appear as such in dreams. If this were the case, we could conclude with equal justification that, since they

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<sup>1</sup>Physiol. d. Menschen, I, 605 f.

appear to us in the form of trees, houses and people with whom, according to Ludwig, we frequently converse, these sensations and images are probably also trees, houses and people. Ordinarily we distinguish dreams from the waking state on the basis of the fact that the former presents to us a false picture of reality, and only occasionally intermixes an element of truth. Consequently, we cannot admit the hypothesis upon which Ludwig bases the conclusion that, since in dreams our images and sensations appear to us as external realities, they probably are actually something external.

Not only the major premise, but also the minor premise is false. It is not true that our images and sensations appear to us in dreams as "absolutely external," if by the term images and sensations we understand respectively the act of representing and sensing. Undoubtedly, these terms as such can also be used in another sense, insofar as we call image not only the act of representing but also the object which is represented, and sensation not only the act of sensing but also the object which is sensed. In our case, however, we are dealing with psychic activities. These activities appear to be inner activities both in dreams and during waking states; in this respect, not even in dreams deception is possible. It is indeed true that in dreams we have images of colors and sounds and many other images; that we are afraid, lose our temper, are happy and experience other emotions. However, the object of these activities, which appears to be really external, exists just as little outside of us as in us. It is a mere phenomenon, just as the physical phenomena which appear to us during wakefulness; these phenomena, in fact, do not

correspond to any reality, even though we often admit the opposite. As we have seen, certain psychologists have based their assertion that the existence of the apparent external world is an illusion upon the assumption that the objects of sensations are something real; as a result they have considered the sensory activity itself as something real and have come to view such activity as its own subject.<sup>1</sup> In a somewhat similar way, it seems, Ludwig has come to mistake the acts of sensation and imagination which take place in dreams for the objects which appear in them. The equivocation of the terms "image" and "sensation" may have played a role in concealing from him his mistake. We could argue in the following way: what appears to us in dreams as something external does not actually exist outside of us; it exists only as represented by us; consequently, it is nothing else than an image and like all our images belongs to our psychic activities; these psychic activities, therefore, appear to us in dreams as something external. This argument, however, would contain an obvious paralogism based upon the equivocal use of the word "image," taken first in the sense of the object represented, and then in the sense of the act of representing.

Ludwig's attempt to weaken the proof of the unity of consciousness is obviously just as unsatisfactory as his attempt to establish the opposite theory. The objections advanced by other psychologists against the unity of consciousness can be rejected just as easily as the attacks of Ludwig and Lange. Since the errors are essentially the same as those which we have

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<sup>1</sup>Cf. Book II, ch. 2, 5.

encountered in these two eminent thinkers, it would be a waste of time to analyze these objections in detail.

Thus the unity of consciousness, as we have explained it, must be considered as an indubitable and certain fact.<sup>1</sup>

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<sup>1</sup> Just as the term "consciousness," the expression "unity of consciousness" is used in different senses. The differences of opinions in this connection are actually even greater, because just like the term consciousness, the term unity has different meanings, being used not only in reference to the subject, but also in reference to the object. Thus, many psychologists use it in reference to the fact that we can follow attentively and logically only one series of thoughts at a time, and really occupy ourselves with only one thing. We shall later deal with the unity of consciousness in this sense, since it is so conceived it is very closely connected with the laws of association.



## CHAPTER V

### SURVEY OF THE PRINCIPAL ATTEMPTS

#### AT A CLASSIFICATION OF PSYCHIC PHENOMENA

1. We come to an investigation which is of great importance not only in itself, but also for all our subsequent investigations. This is because the division and order postulated by scientific study cannot be chosen arbitrarily. As much as possible, they ought to be natural, and they are such when they correspond to a classification of their object which is as natural as possible.

With respect to psychic phenomena, just as elsewhere, we shall encounter divisions and subdivisions. First of all, however, we must determine the most general classes.

As in any other field, the first classifications in the psychological field went hand in hand with the progressive development of language. The latter contains more or less general expressions for psychic phenomena. In addition, the earliest works of poetry prove that in substance the distinctions which are still used today in everyday life antedate the beginning of Greek philosophy. However, before Socrates formulated his theory of the definition with which every scientific classification is most intimately connected, no philosopher had made a worthwhile attempt to offer a fundamental classification of psychic phenomena.

The merit for having opened the way in this field undoubtedly goes to Plato. He distinguishes three fundamental classes of psychic phenomena, or rather, according to his expression, three parts of the soul, each of which embraces particular psychic activities: the concupiscible, the irascible, and the rational.<sup>1</sup>

As we have already remarked in passing,<sup>2</sup> on the basis of this classification Plato distinguished three principal classes in the State: the class of workers, which included the shepherds, the farmers, the artisans, the merchants, etc., the class of guardians or warriors, and the governing class. It is likewise according to these three parts of the soul and with respect to their relative predominance that Plato distinguished three fundamental ethnic groups: the people of the South (Phoenicians and Egyptians), effeminate, in search of the pleasures of wealth; the barbarians of the North, courageous but uncultured; and the culture-loving Greeks.

Just as he has used his classification to define the essential differences of the various directions of man's endeavors, Plato seems to have formulated it in view of these very differences. He found in man an antagonism both between the demands of reason and the sense appetites, and among

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<sup>1</sup> The Greek expressions are: τὸ ἐπιθυμητικόν, τὸ θυμοειδές, τὸ λογιστικόν.

<sup>2</sup> Book I, ch. 2, 7.

the sense appetites themselves. In the latter case, the opposition between the violent and surging passion, which seizes us in the face of pain and death, and the effeminate tendency toward pleasure, which withdraws from every pain, appeared to him particularly striking and just as great as the opposition between rational and irrational desires. Hence he believed that the three parts of the soul should be distinguished also according to their seat of operation. The rational part, he thought, should reside in the head, the irascible in the heart, and the concupiscible in the abdomen.<sup>1</sup> The first should be separable from the body and immortal, while the other two should be attached to it and linked with it in their existence. Plato believed that these parts were different even with regard to their extension in a more or less restricted sphere of living beings. The rational part had to be the exclusive characteristic of man. Man, however, shared the irascible part with animals and the concupiscible part with animals as well as with plants.

It is easy to see the imperfection of this classification, since it is rooted entirely in ethical considerations. The fact that one of the parts

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<sup>1</sup>Democritus himself believed that thought had its seat in the brain and anger in the heart, and localized the sense appetite in the liver. There seems to be only an insignificant difference between this conception and the subsequent Platonic doctrine. Nothing, however, allows us to suppose that Democritus wished to reduce the totality of psychic activities to these three parts. On the contrary, according to the logic of his system, he had to conceive each organ as endowed with special psychic activities. This seems to be indicated by a passage in Plutarch. (Plac., IV, 4, 3). In general, therefore, we cannot say that Democritus attempted to lay down a fundamental classification of psychic phenomena.

of the soul is described as rational does not contradict this statement because both Socrates and Plato regarded virtue as knowledge. Difficulties arise as soon as we wish to determine to which part a given activity belongs. It seems, for example, that sensory perception should be attributed to the concupiscible part as well as to the irascible. In certain passages, moreover, Plato gives the impression of placing it, along with other kinds of cognition, in the rational part.<sup>1</sup> In addition, the applications which Plato makes of his classification and their alleged success which should confirm it only serve to reveal its weakness. Hardly anyone today would grant that the principal professional activities which thrive next to one another in our society are adequately represented by the three Platonic classes of workers, warriors, and rulers. Neither art nor science find in this classification the place which is proper to them. Experience shows us so clearly the difference of aptitudes for theoretical and practical achievements that we are forced to recognize in the abilities of the theoretical thinker an altogether different type of perfection than in the skills of the politician. In addition, government by a philosopher, which Plato envisaged as ideal, would represent a very great danger to the freedom of science and its unhampered progress.

Nevertheless, the Platonic classification contained in germ the classification by which Aristotle replaced it. In an incomparably more important

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<sup>1</sup>Cf. Zeller's observations in his Philosophie der Griechen, 2nd ed., II, 540.

way than that of Plato himself, this classification has prevailed for more than two thousand years.

2. We find in Aristotle three fundamental classifications of psychic phenomena. Two of these classifications, however, are so similar in their structure that we may look upon them as one.

First of all, he distinguishes psychic phenomena by considering some of them as activities of the central organ and the others as immaterial, consequently as phenomena of the mortal and immortal parts of the soul respectively.

Then he distinguishes them according to their greater or lesser extension into phenomena that are common to all animals and phenomena proper to man. This classification appears to Aristotle as threefold because, as we have seen above, on the basis of his more extended concept of psychic phenomena, he attributes a soul also to plants. He speaks of the soul, therefore, as being composed of a vegetative, sensitive, and rational part. The first, which includes in itself the phenomena of nutrition, growth, and reproduction, is said to be common to all living beings, including plants. The second, which embraces the senses, the imagination and other analogous phenomena, including the affective states, is in his eyes specifically animal. Finally, he believes that the third, which comprises the superior faculties of thought and will, is exclusively proper to man. However, as a result of the restriction which the concept of psychic activities underwent later on, the first type of soul falls entirely outside the sphere of these activities.

In the modern sense of the term, therefore, Aristotle by means of this classification divides psychic activities into only two groups: activities which are common to all animals and activities which are specifically human. The elements of this classification coincide with those of the first. Their order, however, determines the degree of universality of their content.

Another classification given by Aristotle distinguishes psychic phenomena, into thought and appetite, \_\_\_\_\_ and \_\_\_\_\_, taken in their broadest sense.<sup>1</sup> This classification overlaps with the preceding one. In the class of thought, in fact, Aristotle includes not only the highest activities of the intellect, such as abstraction, the formation of universal judgments and scientific inference, but also sensory perception and imagination, memory and empirical knowledge.<sup>2</sup> In the class of appetite, however, we find both higher aspirations and strivings as well as the lowest tendencies, and along with them feelings and affective states, i.e., all the psychic phenomena which do not belong to the first group.

Why did Aristotle unite in this classification those phenomena that he

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<sup>1</sup>Cf. De Anima., III, 9, 10.

<sup>2</sup>Wundt reproaches the "logicism" of those who maintain that there exists a similarity between sensation and higher cognition. If this reproach were founded, it would apply also to Aristotle. In this case, however, how is it that Descartes professed the very same doctrine? Indeed, how is it that many others, who completely denied universal concepts, felt the need to subordinate the intellectual activities in question to sensory activities? To be sure, this was an error. However, it would not be a less serious error to deny what is common to sensation and to intellectual thinking. (Note of 1911).

had separated in his first classification? It is easy to see that he was led to this by a certain analogy between sensory images and appearance and intellectual and conceptual knowledge and demonstrations on the one hand, and between lower and higher tendencies on the other. In both cases he found, according to an expression which we have already borrowed from the Scholastics, the same mode of intentional in-existence.<sup>1</sup> On the basis of the same principle he put into different classes these activities that he had united in his first classification. In fact, the relation to the object is not the same in thought and appetite. It is in this very relation that Aristotle placed the difference of the two classes. He did not believe that they are directed toward different objects, but that they envisage the same object according to a different modality. He said distinctly both in his Treatise on the Soul and in his Metaphysics that thought and

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<sup>1</sup>This expression has been misunderstood because it was believed that it implied an intention in the sense of a tendency toward a goal. In view of this, I would have perhaps done better by avoiding it. Instead of the term "intentional" the Scholastics more frequently use the expression "objective." This expression implies that something is an object for the psychic agent and, as such, is present in some manner in his consciousness, whether it is merely thought or also desired, avoided or the like. The reason why I have preferred the term "intentional" is that I am of the opinion that the danger of misunderstanding would have been even greater if I had called "objective" the object of thought as thought, whereas modern thinkers use this term to designate that which actually exist in opposition to "purely subjective phenomena" to which there does not correspond any actual reality. (Note of 1911).

appetite have the same object. This is first received in the faculty of thought and subsequently determines the appetite.<sup>1</sup> In the first classification, he based himself on the variety of the subjects of psychic phenomena as well as on their extension to a broader or more restricted sphere of beings endowed with psychic activities; in the second, on the difference in their relation to the immanent object. The order of succession of the terms is determined by the relative independence of the phenomena.<sup>2</sup> Thought belongs to the first class, but a thought is the necessary condition for every appetite.

3. Aristotle's classifications have remained dominant throughout the Middle Ages. Indeed, their influence has reached down to modern times.

When Wolff divides the faculties of the soul first into higher and lower faculties, then into the faculties of cognition and appetite, and makes these two classifications overlap, we easily recognize in them a schema which corresponds essentially to the twofold Aristotlian classification.

The second classification made itself felt for a long time in England. Hume, for example, based his investigations upon it; and both Reid and Brown introduced into it only insignificant and irrelevant modifications. Thus

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<sup>1</sup> De Anima, III, 10. Metaph., A, 7.

<sup>2</sup> Cf. the above quoted passages.



Reid classified the faculties of the soul into intellective and active.<sup>1</sup> Brown at first opposed sensations, as "external affections," to all other affective states which he considered as "internal affections," then grouped the latter into "intellectual states of mind" and "emotions." The last class embraces all the phenomena included by Aristotle in his concept of .

4. A classification which was even more divergent and of more lasting influence, and which even today is generally considered as an improvement in the classification of psychic phenomena, was established by Tetens and Mendelssohn in the second half of the last century. They divided psychic activities into three coordinated classes and admitted for each of them a special psychic faculty. Tetens called these three fundamental faculties feeling, understanding, and activity<sup>2</sup> (will); Mendelssohn characterized them as the faculty of cognition, the faculty of sensation or of satisfaction (by means of which we experience pleasure or displeasure at a certain thing) and the appetitive faculty.<sup>3</sup> Kant, a contemporary of theirs, adopted this classi-

<sup>1</sup>Aristotle had also considered the appetite as the principle of voluntary movements (De Anima, III, 10).

<sup>2</sup>Über die menschliche Natur, I, Versuch X, 625 (published in 1777).

<sup>3</sup>Bemerkung über das Erkenntnis-, Empfindung- und Begehungsvermögen, dating back to 1776, but published for the first time in his Gesammelte Schriften (IV, 122 ff); and Morgenstunden, Vorles. VII (Gesammelte Schriften, II, 295).

fication in his own way.<sup>1</sup> He called the three faculties of the soul the faculty of cognition, feeling of pleasure and displeasure, and the appetitive faculty, and made them the foundation of the classification of his critical philosophy. His Critique of Pure Reason deals with the faculty of cognition insofar as it contains the principles of knowledge itself; the Critique of Judgment with the faculty of cognition insofar as it contains the principles of feeling; and the Critique of Practical Reason with the faculty of cognition insofar as it contains the principles of appetite. It is chiefly for this reason that this classification has become so influential and widespread that even today it is still accepted.

Kant considers as fundamental the classification of psychic activities into cognition, feeling, and volition because he believes that none of these three classes can be derived from the others nor can they be reduced to a third class with a common root.<sup>2</sup> The differences between cognition and feeling, he says, are so great that this reduction seems to be inconceivable.

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<sup>1</sup>Cf. J. E. Meyer, Kants Psychologie, p. 41 ff.

<sup>2</sup>"All the powers or faculties of the soul can be reduced to three which can no longer be derived from a common ground: the faculty of cognition, the feeling of pleasure and displeasure, and the appetitive faculty" (Kritik der Urteilskraft, Intr., III).

Although pleasure and displeasure always presuppose cognition, a cognition nevertheless is not a feeling, nor a feeling a cognition. Similarly, the appetite appears completely different from both cognition and feeling. In fact, every appetite, and consequently not only explicit volition, but also a weak desire, indeed, even the nostalgia for what we know is impossible,<sup>1</sup> is a tendency toward the realization of an object, while cognition merely grasps and judges the object, and the feeling of pleasure has reference only to the subject, and not to the object, since it is in itself the reason for maintaining its own existence in the subject.<sup>2</sup>

Kant gives few arguments to substantiate and justify his classification. However, while many philosophers, such as Carus, Weiss and Krug, who reverted

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<sup>1</sup>Ibid.

<sup>2</sup>In a chapter of his Treatise on Philosophie überhaupt, in which he discusses "the system of all the faculties of the human mind," Kant exposes and justifies more in detail than elsewhere his doctrine. He states that certain philosophers have tried to prove that the difference between the faculty of cognition, the feeling of pleasure and displeasure and the appetitive faculty is merely apparent, and that consequently all the faculties can be reduced to that of cognition. They did not succeed: "For there is always a great difference between ideas insofar as they, from the point of view of their relation to the object and to the unity of consciousness of this object, belong to cognition. The same is true of their objective relation when we consider them on the one hand as the cause of the reality of this object and thus attribute them to the faculty of appetite, and on the other as the cause of their relation to the subject, when they serve as foundation for their own existence, and thus consider them in their relation with the feeling of pleasure. This feeling certainly neither is nor produces any knowledge, even though the latter may indeed be presupposed as its fundamental determination" (Kants Werke, ed., Rosenkraus, I, 568 ff.).

to the twofold classification of faculties of cognition and appetite, have not only criticized it, but also tried to show its a-priori impossibility, others, and especially Hamilton, took up its defense, developing the conception which had merely been outlined by him.

The attacks against Kant's conception were indeed peculiar. Krug argued that the faculties of cognition and conation should be considered as two different faculties because the activity of our mind exhibits a twofold direction, one inward and the other outward. For this reason, the activities of the mind should be divided into immanent or theoretical and transient or practical. It would be impossible to add a third class because such a class would have to have a direction, which would tend neither inwardly nor outwardly, which is inconceivable.

Hamilton had no difficulty in pointing out the futility of this type of reasoning. Why, he asks with Blunde, should we not rather say that we must envisage in the same soul three kinds of activities, - "an ineunt, an immanent, and a transeunt?"<sup>1</sup> In fact, by this somewhat dubious procedure we could arrive at a classification which, in its three parts, would agree well enough with what, in the above quoted passage, Kant said of cognition, feeling, and desire.

Hamilton, however, does not confine himself to a simple refutation. He also attempts to offer a positive proof of the necessity of the assumption of feelings as a special class of psychic phenomena. To this end, he shows

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<sup>1</sup>Lectures on Metaphysics, II, 423.

that there exist certain states of consciousness which can be classified neither as cognition nor as conation. Such are the emotions which we experience in reading the story of Leonidas' death at Thermopylas, or hearing the following verse in a famous old ballad:

"For Widdington my soul is sad,  
That ever he slain should be,  
For when his legs were striken off,  
He kneeled and fought on his knee"<sup>1</sup>

Such emotions are not simple acts of cognition, and cannot be called phenomena of volition or desire. Still they are psychic phenomena, and consequently it is necessary to add to the two classes a third one which we could designate, with Kant, as that of feelings.

It is easy to recognize that this is insufficient. It would be that the terms volition and desire, taken in their ordinary usage, are too narrow to embrace all psychic phenomena different from cognition; perhaps, there is no appropriate term for these phenomena in our ordinary language. Nevertheless, it could be that the phenomena which we call desire and those that we call feeling together form a broader homogeneous class which is naturally coordinated with the phenomena of cognition. A true justification of the classification is impossible without an exposition of its underlying principles. Hamilton does not fail to offer such an exposition in another passage by declaring, with Kant, that the three classes are phenomena of different faculties of the soul, which cannot be deduced from one another.

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<sup>1</sup>Ibid., 420.

Descartes, Leibnitz, Spinoza, Wolff, Platner and other philosophers, he says, basing themselves on the fact that knowledge of inner consciousness accompanies all phenomena, were led to regard "the faculty of cognition as the fundamental faculty of the mind, from which all the others are derivative. To this the answer is easy. These philosophers did not observe that, although pleasure and pain, although desire and volition, are only as they are known to be; yet in these modifications, a quality, a phenomenon of mind, absolutely new, has been superadded, which was never involved in, and could, therefore, never have been evolved out of, the mere faculty of knowledge. The faculty of knowledge is certainly the first in order, inasmuch as it is the conditio sine qua non of the others; and we are able to conceive a being possessed of the power of recognizing existence, and yet wholly void of all feeling of pain and pleasure, and of all powers of desire and volition. On the other hand, we are wholly unable to conceive a being possessed of feeling and desire, and, at the same time, without a knowledge of any object upon which his affections may be employed, and without a consciousness of these affections themselves.

"We can further conceive a being possessed of knowledge and feeling alone -a being endowed with the power of recognizing objects, of enjoying the exercise, and of grieving at the restraint, of his activity, and yet devoid of that faculty of voluntary agency -of that conation, which is possessed by man. To such a being would belong feelings of pain and pleasure, but neither desire nor will, properly so called. On the other hand, however, we cannot

possibly conceive the existence of a voluntary activity independently of all feelings; for voluntary conation is a faculty which can only be determined to energy through a pain or pleasure, through an estimate of the relative worth of objects."<sup>1</sup>

This justification of the classification with respect to the principle, number, nature and order of its parts may be considered as a further development of Kant's arguments.

Let us now listen to Lotze. Contrary to Herbart's new attempt to do away with all plurality of faculties, this author undertook in his Medical Psychology and even more in his Microcosmus a thoroughgoing defense of Kant's tripartite classification.

"The older psychology," Lotze says, "believed that feeling and will contain special elements which flow neither from the nature of cognition nor from the general character of consciousness in which all three take part at the same time. Feeling and will were accordingly added to the faculty of cognition as two equally original faculties. More recent conceptions do not seem to be successful in the refutation of the reasons which led to this threefold classification of the original faculties. It could scarcely come to mind to claim that cognition, feeling and will share among themselves

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<sup>1</sup>Lectures on Metaph., I, 167; cf. II, 431.

the realm of the soul as three independent series of phenomena originating from different roots; and that, developing separately, they do not come into contact except in their final ramification to exert a variable, reciprocal action upon one another. Observation shows only too clearly that for the most part feelings are connected with cognitive phenomena and give rise, as pleasure and displeasure, to desires or aversions. This obvious dependence, however, does not resolve the question of knowing whether the antecedent event produces by its own power the consequent event, as its full and sufficient efficient cause, or whether it merely constitutes its occasional cause by acting partly with the external force of a condition which provides its cooperation silently while escaping our observation...

\*The comparison of these psychic phenomena compels us, if we are not mistaken, to adopt the second hypothesis. If we consider the soul as a being endowed only with cognition, we shall never discover in any situation - no matter how particular it be, - which calls for the exercise of this activity, a sufficient reason why the soul should abandon this mode of externalization and develop feelings of pleasure and displeasure. On the contrary, it may seem that irreconcilable oppositions between different cognitive processes, whose antagonism does violence to the soul, ought to stir up its displeasure from which there should arise a tendency to remedy this situation. This appears to us to be so, however, only because we are more than cognitive beings. The necessity of this succession is not self-evident; we judge it as such by



reason of the totality of our inner experience on the basis of which we have long been accustomed to consider it as an inevitable matter of fact. This alone makes it possible for us to overlook the gap which exists between two successive members of the series and which we cannot fill except by introducing an as yet unobserved condition. Apart from this experience, a merely cognitive soul would not find in itself, even in the most intense pain, either reason or capacity for striving to bring about a modification. It would suffer, without being roused to volition. Since this is not so, and in order that it may be otherwise, the faculty of feeling pleasure and displeasure must exist originally in the soul, and cognitive phenomena, reacting on the nature of the soul, must arouse this faculty to activity, instead of drawing it a-priori from themselves. Furthermore, no matter what their nature is, the feelings which dominate the soul do not evoke volition; they can only serve as motives for a pre-existing faculty of volition which they find in the soul, but which, if it were absent, they could never bring about..

"Thus these three original faculties would present themselves as hierarchically subordinated faculties, so that the manifestation of one would excite the activity of the one that follows."<sup>1</sup>

Lotze carries even further this explanation, justification, and defense of the Kantian classification. The passage quoted above, however, is sufficient to show us that the way in which he conceives its principle and

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<sup>1</sup>Mikrokosmos, I, 193 ff.

establishes the trichotomy of faculties and their order agrees with that of Hamilton. Indeed, both authors simply develop Kant's conception.

However, the principle employed by Kant in his fundamental classification, and adopted by both Hamilton and Lotze as well as by many others, seems to be of little value in the determination of the fundamental classes; not because we accept Herbart's opinion on the matter, but rather, I might say, because of an opposite reason.

If two phenomena were to be ascribed to two different fundamental classes only because we cannot deduce a-priori the faculty of one from the faculty of the other, we would have to distinguish not only, as Kant, Hamilton and Lotze have done, cognition from feeling and desire, but also sight from taste, indeed the sensation of red from the sensation of blue, as phenomena belonging to distinct fundamental classes.

With respect to sight and taste, what I have just said is evident. There are, in fact, numerous species of lower animals which possess the sense of taste without sight. The same thing applies to the vision of red and blue. An even clearer proof of this is the phenomenon of red blindness or Daltonism.<sup>1</sup>

These considerations show beyond any doubt that the faculty to perceive

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<sup>1</sup>A System of Logic, Book III, ch. 14, 2.

a particular color does not permit us to deduce a-priori the faculty to perceive a certain other color. Indeed, if we could only see blue and yellow, we would never have the slightest notion of red. For this reason, even J. S. Mill looks upon the occurrence of each separate color as an ultimate undervivable fact.

However, it would obviously be absurd to assign to different fundamental classes the images of red and of other colors, as phenomena which are based upon different original faculties, undervivable from one another. Thus we are forced to the conclusion that this principle of classification is in no way appropriate for the determination of the fundamental classes of psychic phenomena. If this were the case, we would obviously have to distinguish not only thinking, feeling and conation, but also an incomparably greater number of fundamental classes of psychic phenomena.

It would certainly be presumptuous to claim that Kant and the eminent philosophers who after him have defended his threefold classification did not pay sufficient attention to the principle which guided them in their classification. Besides, we find that even Kant's predecessors, Tetens and Mendelssohn, had already appealed to the undervivability of the faculties to justify their fundamental classification. Nevertheless, if we look at the disagreement between the alleged reason for this classification and its structure, we have to admit that all these thinkers have more or less unconsciously yielded to entirely different motives. This is indicated by unmistakable clues found in their own statements.

What prompted Kant to divide psychic activities into his three classes was, I believe, the fact that these activities agree or differ when we look at them from a point of view similar to that adopted by Aristotle in his distinction between thought and appetite. The passage of his treatise on Philosophy in General, which we have quoted above, clearly places the differentiation between cognition and appetite in the difference of their relation to the object, while the proper character of feeling is sought in the fact that in it such a relation is lacking, since this psychic phenomenon is related only to the subject.<sup>1</sup> Such was, therefore, the great difference: it implied certainly the impossibility of all reciprocal derivation, but at the same time it constituted in itself an even deeper rift than this impossibility itself--a rift which is not present in the same way in those other cases which compel us to admit particular original faculties.

It is the same with Hamilton. If we ask him why he characterizes feeling and conation as phenomena of particular original faculties and considers it impossible to explain them by means of one fundamental faculty, he gives the following answer in the second book of his Lectures on Metaphysics: even though by reason of inner perception these phenomena generally involve a certain degree of cognition, consciousness shows that they possess "certain qualities, which are not contained, either explicitly or implicitly, in the phenomena of cognition itself. The characters by which these

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<sup>1</sup>Cf. above, p. 286, note 2.

three classes are reciprocally discriminated are the following.-- In the phenomena of cognition, consciousness distinguishes an object known from the subject knowing... In the phenomena of feeling,-- the phenomena of pleasure and pain,-- on the contrary, consciousness does not place the mental modification or state before itself; it does not contemplate it apart,-- as separate from itself,-- but is, as it were, fused into one. The peculiarity of feeling, therefore, is that there is nothing but what is subjectively subjective"-- an expression which we have already mentioned once before. "In the phenomena of conation,-- the phenomena of desire and will,-- there is, as in those of cognition, an object, and this object is also an object of knowledge... But though both cognition and conation bear relation to an object, they are discriminated by the difference of this relation itself. In cognition, there exists no want; and the object, whether objective or subjective, is not sought for, nor avoided; whereas in conation, there is a want, and a tendency which results in an endeavor, either to obtain the object, when the cognitive faculties represent it as fitted to afford the fruition of the want; or ward off the object, if these faculties represent it as calculated to frustrate the tendency of its accomplishment."<sup>1</sup>

This passage from Hamilton seems almost like a commentary and a paraphrase of the above mentioned remark of Kant. Both authors are essentially in agreement, but Hamilton is simply more explicit and more clear. Obviously, if we go to the heart of the matter, the viewpoint which Hamilton takes in

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<sup>1</sup>Lect. on Metaph., II, 431.

order to classify psychic phenomena into different fundamental classes is, as with Aristotle, that of intentional in-existence. According to Hamilton, certain psychic phenomena do not contain any intentional in-existence of an object; in this category he places feelings. But even those phenomena in which such in-existence is found must, according to him, show a fundamental difference in respect to the mode of intentionality, and for this reason must be divided into cognition and conation.

Finally, in the case of Lotze, there is more than one indication that his conception of the three classes of cognition, feeling and conation, as different fundamental classes of psychic phenomena, was based upon a more important reason than the simple impossibility of deriving these faculties from one another. He put special emphasis upon this point only because the school of Herbart denied this impossibility. The fact that, like ourselves, he considers sight and hearing as distinct primary faculties shows that he is fully aware that the number of the faculties of the soul not derivable from one another cannot be reduced to three. It is precisely in his examination of the three fundamental classes that he touches upon this truth.<sup>1</sup> Why then did he place the cognition of sound and colors in the same fundamental class, and why, in his fundamental classification, did he not base himself upon other differences for which it is easy to prove, especially in the domain of feeling, that they are equally underivable? The decisive factor here must have been the perception of a particularly profound differ-

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<sup>1</sup>Mikrokosmos, I, 195.

erence which exists between these three classes, and which is not found in the same manner in other cases in which the derivation is impossible. What we have found in Kant and Hamilton, however, allows us to assume from the outset that it was likewise a difference of psychic activities with respect to their relation to the object which led Lotze to consider the three classes as essentially different and as the fundamental classes of psychic phenomena.

Our only task now is to examine whether we are really justified in maintaining this viewpoint in the fundamental classification of psychic activities, and whether the trichotomy of cognition, feeling and volition really coincides with, and exhausts the fundamental difference which psychic phenomena reveal to us in this respect. We shall discuss this issue at the end of this survey of classifications that have been attempted up to now, while outlining our own classification.

5. As we have already remarked, this division of consciousness into cognition, feeling, and will has been very commonly accepted in recent times. Even Herbart and his school have adopted it and, like other psychologists, in their treatises of empirical psychology they are accustomed to place it at the basis of the order of their expositions. The only difference between them and the common opinion is that they wish to derive the last two classes from the first, instead of reducing them to particular original faculties--an attempt which is obviously futile, as we have already noted on several occasions.

6. Among the representatives of the English empiricistic school, who are opposed, to a certain extent, to Hamilton's school, Alexander Bain has also advanced his threefold division using the same terms. He distinguishes in the first place "Thought, Intellect or Cognition"; in the second place "Feeling"; and in the third place "Volition or the Will." Thus it seems that here, too, we find the same classification and Bain himself refers to this agreement as a confirmation.

However, when we examine the explanation which Bain gives of the three parts of his classification, we notice that the identity of expressions hides a great difference in meaning. By volition or will Bain understands something entirely different from what the German psychologists as well as Hamilton are accustomed to designate with this term, i.e., the action which psychic phenomena exercise. At the beginning of his great work on The Senses and the Intellect, he declares that volition, or the will, embraces the whole of our activity as directed by our feelings.<sup>1</sup> Further on he explains this concept in the following way: "All beings," he says, "recognized as possessing mind cannot only feel, but also act. The putting forth of force to attain some end marks a mental nature. Eating, running, flying, sowing, building, speaking - are operations rising above the play of feeling. They all originate in some feelings to be satisfied which give them the character of proper mental actions. When an animal tears, masticates, and swallows

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<sup>1</sup>The Senses and The Intellect, p. 2.



its food, hunts its prey, or flees from danger, the stimulus or support of the activity is furnished by its sensations or feelings. To this feeling-prompted activity we give the name volition."<sup>1</sup>

We would not designate eating, walking, speaking as acts of will, but rather only as effects of an act of will. Kant, of course, often speaks of desire as though it were the product of desired objects. In his Critique of Practical Reason he defines the appetitive faculty as "the power of being, through its cognition, the cause of the reality of the objects of this cognition."<sup>2</sup> I do not believe, however, that he has ever meant to designate eating or walking as an appetite; everything indicates on the contrary that he simply expressed his thought in inappropriate terms.<sup>3</sup> It is different with Bain. His expressions mentioned above compel us to admit that he actually used the term "will" in a different sense. What he says immediately afterwards confirms this interpretation. He tries to establish the difference between what he calls volition and the natural forces of wind, water, weight, powder, etc., as well as unconscious physiological functions, such

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<sup>1</sup>Ibid., p. 4. Cf. Mental and Moral Science, p. 2.

<sup>2</sup>Kritik der praktischen Vernunft, Preface. Cf. Kritik der Urteilskraft, Intr., IV, note, and the passage quoted above in his treatise on Philosophie überhaupt (p. 286, note 2).

<sup>3</sup>Otherwise he would not refer to every desire and aspiration as appetite (which Bain does not do), nor would he include freedom in the appetitive power.

as the circulation of the blood. He would obviously not do this if, by volition, he understood not so much an inner psychic phenomenon as a (physical) effect of psychic phenomena, therefore a physiological or, if one prefers, a psychophysical phenomenon.

Thus Bain's classification of psychic phenomena agrees basically more with the Aristotelian dichotomy of thought and appetite (the latter manifesting itself on occasion as voluntary movement) than with the later trichotomy of cognition, feeling and appetite. What we call appetite and will, Bain classifies as feeling. For him, feeling and will seem to constitute one single class. He further broadened the domain of feeling in still another sense by including in its sphere sensations which, according to the majority of modern thinkers and Aristotle himself, should be ascribed to the first class.

We find in Bain another classification which overlaps with the classification mentioned above. He distinguishes psychic phenomena into primitive phenomena and phenomena which result from them by way of further development. In the first class he includes sensations, desires resulting from the needs of the organism, and instincts, by which he understands movements which are executed without training and practice. This dichotomy, in a later edition of his great psychological work as well as of his Compendium, was placed at the basis of the plan of his exposition in preference to all other classifications. Bain seems to have derived the idea of this dichotomy from H. Spen-

cer. In this author we can find an analogous division of psychic phenomena into primitive and more developed phenomena; likewise, in his Principles of Psychology, the idea of evolution on the whole dominates all other ideas. Spencer divides the more developed psychic activities into cognitive (memory, reason) and affective (feeling, will), and thinks that both classes have their origin in primitive phenomena. Thus we could perhaps say that, overlapping with his first classification, there is a second which in its systematic arrangement recalls the Aristotelian division of νόος and σέεξις.<sup>1</sup>

7. With this analysis we can terminate our survey of the principal attempts at a classification of psychic phenomena. If we consider the principles upon which these attempts have been based, we discover four different viewpoints, three of which can be encountered in Aristotle himself. This thinker has separated psychic activities, first according to whether or not they are linked with the body; then according to whether or not they belong in common to man and animals or exclusively to man; and finally according to their intentional in-existence, or, if we prefer, according to the difference of their mode of consciousness. The last principle of classification has been used most frequently over the centuries. To it can be reduced the principle of the second classification of Bain, according to which psychic phe-

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<sup>1</sup>Cf. Ribot, Psychologie Anglaise Contemporaine (Paris, 1870), p. 191. This work in particular gives a very interesting survey of the psychological theories of Herbert Spencer.

nomena are divided into primitive phenomena and phenomena which develop from them.

In the following investigations, we shall try to reach a decision both with regard to the principle, and with regard to the systematic arrangement of a fundamental classification.

CHAPTER VI  
DIVISION OF PSYCHIC ACTIVITIES  
INTO IMAGINATION, JUDGMENTS AND  
PHENOMENA OF LOVE AND HATE

1. Upon what principles must we base the fundamental division of psychic phenomena? Evidently upon those which are also taken into consideration in other cases of classification and of which the natural sciences offer several outstanding examples of application.

A scientific classification should be such that it arranges objects in a manner favorable to research. To this end, it must be natural, that is to say, it must unite into a single class objects closely related by reason of their nature, and it must separate into different classes objects which, by their nature, stand relatively apart. This is possible only when there is a certain degree of knowledge of the objects to be classified, since the fundamental rule of classification is to proceed from a study of these objects and not from an a-priori construct. Krug committed this error when he argued a-priori that psychic activities had to be of two types, those directed inwardly from without, and those directed outwardly from within. Horwics, too, violated this principle. As we saw above,<sup>1</sup> he did not strive to

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<sup>1</sup>Book I, ch. 3, 5.

confirm or to rectify the accepted fundamental classification through a closer study of psychic phenomena. On the basis of physiological considerations bearing upon the opposition between sensory and motor nerves, he hypothesized a similar opposition, that between thought and desire, encompassing the whole psychic domain. In view of the backward state of their science, it is easy to understand that psychologists might be tempted to utilize the research findings of other sciences in their efforts to arrive at a classification of psychic phenomena. At the same time, as long as the true method cannot be used with sufficient accuracy, we cannot hope to approach more closely this goal by any other method. By basing our investigations upon existing psychological knowledge, even though at the present time we are unable to establish a conclusive classification, we shall at least pave the way for it. As in other fields, the classification and knowledge of the characteristics and the laws of psychic phenomena will perfect themselves reciprocally with the further development of our science.

2. All the attempts at classifying psychic phenomena discussed in the previous chapter deserve to be approved to the extent that they proceed from the study of psychic phenomena. In addition, their authors tried to make them conform to the nature of these phenomena by using as their criterion either the independence of certain phenomena from others or their pervasive dissimilarity. This does not mean that they were not misled in their efforts by an imperfect knowledge of the psychological field. At any rate, some of these classifications cannot be utilized to the same degree as others, either

because their foundation is still open to dispute, or because the advantages which they hold out to research are lost on account of particular obstacles.

Let us clarify these statements with specific examples.

Aristotle divided psychic phenomena into phenomena common to man and animals and those which are proper to man. From the standpoint of the Aristotelian doctrine, this classification appears excellent in many respects. Aristotle believed that certain faculties of the soul were the exclusive property of man and considered them immaterial, whereas he held the faculties which are common to all animals as faculties of a bodily organ. Consequently, granting that the Aristotelian theories are correct, this classification separates phenomena which also in nature occur separately from the others; and the fact that the latter are functions of an organ, while the former are not, allows us to assume the existence of important special characteristics and laws in each of these two classes of phenomena. But the Aristotelian theories which would justify this classification are in many respects questionable. In fact, many psychologists deny that certain psychic faculties belong exclusively to man; and in general they are unable to agree as to which psychic phenomena are common to man and animals and which are not. While Descartes refuses all psychic activity to animals, other important investigators attribute to the higher classes of animals all our simpler psychic phenomena. They believe that there is only a difference of degree between our activities and the activities of these animals, and are of the opinion that all the differences of their behavior are thereby

sufficiently explained. In particular, Locke agrees with Aristotle's doctrine that animals are deprived of the faculty to form general and abstract ideas, but many other philosophers representing different schools of thought deny that this constitutes a fundamental difference between the psychic endowment of man and animals. Some of these thinkers maintain that there is conclusive evidence for the existence of general ideas in animals; others, beginning with Berkeley, deny that even man is really endowed with these ideas.

Although the study of reflexes has led many modern authors to lean toward Descartes' conception, we shall not allow this trend to mislead us. Even today, many distinguished thinkers belonging to different schools of thoughts profess the opposite view. In particular, the followers of Berkeley have gained momentum in England and are beginning to assert themselves on the continent. If, as the expression goes, there were no actual qualitative difference between the psychic endowment of man and animals, the classification of psychic phenomena into phenomena common to all animals and phenomena proper to man would obviously lose much of its importance. In any case, this controversy and the difficulty to solve it do not allow us to use this classification as a fundamental classification in the organization of our investigations.

The greatest possible advantage which this classification could offer to research, namely the isolated study of a sphere of our psychic phenomena, is essentially weakened because we possess only an indirect knowledge of the



psychic life of animals. It is for this reason, as well as because he did not want to make any unproved assumptions, that Aristotle himself has not utilized it as a fundamental classification in his systematic treatise on the soul.

As we have seen, Bain divided psychic phenomena into elementary phenomena and phenomena derived from them through further development. Here, too, the first class encompasses phenomena which in nature occur independently of the others; but again we must point out that, to the very extent to which they occur independently, these phenomena are not directly observable by us. In addition, it is rather difficult for us to arrive at a positive opinion concerning the nature of the first beginnings of psychic life. When, in later years a physical stimulus produces a sensation, acquired dispositions can exert a powerful transforming influence upon such a sensation. Today, in fact, we find that this field is one of the major areas of controversy. Consequently, although we shall always take into consideration Bain's viewpoint in the organization of our investigations, it is better to choose a different criterion for our fundamental classification.

Of the classifications which we have discussed, we have yet to evaluate those which are based upon the different relations of psychic activities with their immanent object or upon the different modes of their intentional in-existence. Aristotle has preferred this viewpoint in his psychological treatises; likewise, more or less consciously, thinkers belonging to the most

diverse schools of thought have subsequently accepted it more often than any other in the fundamental classification of psychic phenomena. It is the immanent in-existence of an object in psychic phenomena which distinguishes them essentially from physical phenomena. For this reason, it is easy to understand that the fundamental differences in the modes of immanent objectivity also constitute the principal class differences among psychic phenomena. With increasing development, psychology has discovered that the properties and laws common to each group of psychic phenomena are more connected with fundamental differences in their mode of relation to the object than with any other difference. In addition, while the classifications mentioned before seemed to lose most of their usefulness due to the standpoint of their authors, the classification in question is free from such an encroachment upon its value. Thus, the most varied considerations lead us to employ the same principle in our fundamental classification.

3. However, how many and which fundamental classes is it necessary to distinguish? We saw that there is no unanimity among psychologists on this issue. Aristotle has distinguished two fundamental classes, thought and desire. Most modern authors instead prefer a trichotomy of cognition, feeling and conation.

To express our conception immediately, we also maintain that, with respect to the different modes of relation to their content, three main classes of psychic phenomena must be distinguished. These three classes,

however, are not the same as those generally established. In the absence of more appropriate expressions, we designate the first with the term imagination, the second with the term judgment, and the third with the term emotion, interest or love.

These terms are not unequivocally clear, and are often employed in a more restricted sense. Our vocabulary, however, offers us no homogeneous expressions which would better convey these concepts. For this reason, even though there is a certain danger involved in using ambiguous terms in such important definitions, and especially in using them in a wider sense than it is customary, we prefer to run this risk than to introduce neologisms.

We have already explained what we mean by imagination. We speak of imagination whenever something appears to us. When we see something, we represent to ourselves a color; when we hear something, a sound; when we imagine something, an image. In view of the general sense in which we use this term, we were able to say that it is impossible that psychic activity be related in any way to something which is not represented.<sup>1</sup> When I hear and understand a word, I represent to myself what it designates; in general, the purpose of words is to evoke images.<sup>2</sup>

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<sup>1</sup>Book II, Ch. 1, 3.

<sup>2</sup>Meyer (Kants Psychologie), Bergmann (Vom Bewusstsein), Wundt (Physiologische Psychologie) and others use the concept of imagination in a much more restricted sense, while for example Herbart and Lotze employ it in the same way as we do. We can apply here what we have previously said with regard to the term consciousness (Book II, ch. 2, 1). The best thing to do would be to use this term in such a way as to fill as much as possible a lacuna in our

In accordance with the common philosophical usage of this term, by judgment we understand the acceptance of something as true or the rejection of something as false. We have already noted, however, that such an acceptance or rejection occurs also in many cases in which the term judgment is not used, for example, in the perception of psychic acts and in memory. Naturally nothing will prevent us from including also these cases in the class of judgment.

It is especially with regard to the third class, whose phenomena we designate as emotions, as phenomena of interest or as phenomena of love, that we lack a term which is really appropriate and homogeneous. According to us, this class should include all the psychic phenomena which are not contained in the first two classes. The term emotion is generally applied only to the affective states which are connected with a perceptible physical excitation. Anger, fear, an overwhelming desire are obviously emotions; but in the general sense in which we use it, this term should be applied to every wish, to every resolution, to every intention. Kant, however, has used the word Gemüt in a still broader sense than ours, since he characterizes every psychic faculty, even that of knowledge, as a faculty of emotion.

Likewise, the term interest is used only to designate certain acts of our third class, i.e., acts which arouse our desire of knowledge or curiosity.

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terminology. While we have other expressions for less general classes, we do not have any other for our first fundamental class. It seems necessary, therefore, to use the term imagination in this very general sense.

Yet it cannot be denied that every pleasure or displeasure can be described not altogether inappropriately as interest, and that every desire, every hope, and every voluntary decision is an act of the interest which we take in something.

Strictly speaking, instead of the simple term love I should have used the expression love and hate to characterize the third class. If for the sake of brevity I use only one of these two terms, it is because we do the same thing in other instances: for example, when we designate judgment as an act by means of which we posit something as true, or when we speak of the phenomena of desire in the broad sense of the term,<sup>1</sup> we always include in these expressions the opposite. Even apart from this, however, I shall perhaps be criticized for using this term in too broad a sense. Undoubtedly this term is equivocal. In fact, in one sense we say that we love our friends and in another that we love wine; I love my friends by wishing them well, but I love wine because I desire it as something good and drink it with pleasure. In the second sense of the term, I believe that every act which belongs to the third class implies something loved, i.e., more properly expressed, either loved or hated. Just as every judgment contains an object as true or false, in an analogous way every phenomenon which belongs to this

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<sup>1</sup>Kant has followed the same procedure by calling one of his three fundamental faculties Begehrungsvermögen (appetitive faculty) and Aristotle by employing the term δὲ ἐπιθυμία to designate one of his fundamental classes.

class contains an object as good or bad. In subsequent discussions, we shall explain this point more in detail and, we hope, establish it beyond doubt.

4. If we compare our tripartite division with that which has been predominant in psychology since Kant, we discover that it differs from it in two respects. It separates into two fundamental classes of phenomena which until now were united in the first class; and combines the last two classes into one class. We shall have to justify our position in both respects.

But how can we justify these innovations? It seems that the only means at our disposal is to appeal to inner experience which teaches us that the relation of consciousness to its object is in one case identical or at least analogous, and in the other instead radically different. Inner experience is evidently the arbiter which alone can resolve the controversy concerning the identity or difference of the intentional relation.--Each of our opponents however, also appeals to his own inner experience. And whose experience will take precedence here?

This difficulty is not restricted to our field of investigation. Error of observations occur also in other domains either through oversight or because characteristics which are inferred or otherwise attained through reasoning are confused with, or mistaken for, actually observed characteristics. However, if others call our attention to this point, we recognize, especially by renewing our observation, the error we made. It will be necessary for us to follow the same procedure here, in the hope of winning the assent of our opponents and reaching complete agreement on this important question.

Experience nevertheless teaches us and psychology explains that, when innate and deep-rooted prejudices cause an error of observation, it is even more difficult to recognize this error. The fact that we disagree with the commonly accepted opinion and that someone invites us to renew our observation are not sufficient to this end; nor it is sufficient for someone to call our attention to the points which contain the errors of the observation to be corrected, and to oppose to these errors the true facts. Rather, it will be necessary at the same time to pay attention to the characteristics of these facts, especially those characteristics which are universally accepted, but which contradict the alleged observation. Finally, we must try to discover not only the error, but also the cause of the error.

As in all other cases, this procedure is also demanded in our case. It is on the basis of this procedure that we shall attempt to justify in detail in the next chapter our separation of imagination and judgment, and in the following one the unification of feeling and striving.

CHAPTER VII  
IMAGINATION AND JUDGMENT: TWO DIFFERENT  
FUNDAMENTAL CLASSES

1. When we say that imagination and judgment constitute two different fundamental classes of psychic phenomena, we wish to say, according to our preceding remarks, that they correspond to two absolutely different modes of consciousness of an object. We do not thereby deny that judgment presupposes imagination. On the contrary, we affirm that every object which is judged enters into consciousness in a twofold way: as an object represented, and as an object affirmed or denied. This relation, therefore, would be analogous to that which most philosophers (Kant no less than Aristotle) have rightly admitted, as we have seen, between imagination and desire. Nothing is desired which has not been represented; but desire constitutes a second, absolutely new and particular mode of relation to the object, an entirely different mode of immanence of the object in consciousness. Moreover, nothing is judged which has not been represented; but we assert that, since the object which is represented becomes the object of an affirmative or negative judgment, our consciousness enters into an absolutely new mode of relation with the object. This object is present in consciousness in a twofold way, first as an object represented, then as an object affirmed or denied, in the same way in which, when the desire tends towards its object, each object is immanent to it both as an object represented and as an object desired.



This, we maintain, is what inner perception and the attentive observation of the phenomena of judgment in memory clearly reveals to us.

2. In spite of this, the true relation between judgment and imagination has been misunderstood up to now. For this reason, although my doctrine is confirmed by the testimony of inner perception, I must expect its exposition to encounter the greatest mistrust.

Psychologists may indeed refuse to admit that in judgment, in addition to simple imagination, there is a second and radically different mode of relation of consciousness to the object. However, they do not and cannot deny that there exists a certain difference between the first and the second state. Even if they do not conceive this difference as we do, a closer reflection upon its nature would perhaps make them lean more toward our position by showing that it is not possible to find a more acceptable solution.

If a second and characteristic mode of relation were not present in judgment, if the mode of conscious immanence of the object of judgment were essentially the same as that which belongs to the object of imagination, a difference between them could only consist either in a difference of content, i.e., in a difference between the objects to which imagination and judgment refer, or in a difference in the degree of perfection which we attribute to this same content<sup>1</sup> in simple imagination and in judgment. There certainly

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<sup>1</sup>Even though the use of the term "content" in the present context can hardly be recommended, I retain it in this edition in conformity with my intent to reproduce faithfully the original text. The meaning of this term differs from that currently assigned to it. Indeed, no one would think of

exists, therefore, an intrinsic difference between the act of thinking which we call imagination and that which we call judgment.

A. Bain had the unfortunate idea of looking for the difference between imagination and judgment not in these activities of thought, but in the consequences stemming from them. Since, when instead of simply representing to ourselves an object, we likewise judge it as true, we consider this as a particularly decisive element in our volitions and in our actions, he thought that the difference between judgment and imagination consists simply in this influence upon the will. The image which exerts such an influence becomes by this very fact a belief. I have called this theory unfortunate. In effect, how does it happen that such an image, in contradistinction to every other one, exerts this influence upon our actions? -- The mere asking of this question is sufficient to show the error of Bain. There would be no special consequences, if there were no special basis for them in the very nature of the thought process itself. Far from rendering superfluous the assumption of an intrinsic difference between a simple imagination and judgment, the difference in their consequences is rather the very proof of that intrinsic difference. Opposed by J. S. Mill,<sup>1</sup> Bain, in the appendix to the

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saying that the judgment "God exists" has the same content as the judgment "God does not exist," since it shares with it the same object. In the remarks added as an appendix to the present edition, I have not taken the term content in the special meaning which I have given to it here, but in the ordinary meaning. (Note of 1911).

<sup>1</sup>  
In a note on Analysis of the Phenomena of the Human Mind by James Mill, 2nd ed., I, 402.

third edition of his Compendium of Psychology, added a note in which he recognized as erroneous and disowned the opinion which he had upheld in his great work on The Emotions and the Will as well as in the first editions of his Compendium.<sup>1</sup>

J. S. Mill<sup>2</sup> and more recently Herbert Spencer<sup>3</sup> have committed a similar error. These two philosophers are of the opinion that the image of the union of two characteristics is accompanied by belief when there is formed in consciousness an inseparable association between these two characteristics, i.e., when the habit of representing two characteristics together has become so strong that the image of one inevitably evokes the other in consciousness and becomes connected with it. Belief, they tell us, is nothing more than this inseparable association. We do not intend to determine if, whenever a certain connection between two characteristics is affirmed as true, there really exists between them an inseparable association, and if, whenever such an association is formed, the connection is really posited as true. Even

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<sup>1</sup>Mental and Moral Science, 3rd ed. (London, 1872). Note on the chapter on Belief, Append., p. 100.

<sup>2</sup>Anal. of the Phenom. of the Human Mind, ch. XI.

<sup>3</sup>Principles of Psychology, 2nd ed. (London-Edinburgh, 1870), I, Cf. also the note of J. S. Mill mentioned above.

granting that this double condition be realized, it is nevertheless easy to see that such a hypothesis is not sufficient to establish the distinction between judgment and imagination. In fact, if the alleged difference existed only between judgment and the corresponding image, both, considered in themselves, would constitute an absolutely identical act of thinking. The habit of thinking about two characteristics associated with one another is not in itself an act of thinking nor a specific property of such an act, but a disposition which is manifested only and exclusively by its consequences. And the impossibility of thinking about one of the characteristics without thinking of the other is not an act of thinking or a specific property of such an act. On the contrary, according to the opinion of the philosophers in question, it is only a particularly high degree of this disposition. If this disposition becomes known only insofar as the connection of characteristics is thought as indissoluble, but at the same time conserving the same nature as before its acquisition, it is clear, as we said, that between the first act of thinking, which is a simple image, and the subsequent act, which should be a belief, there does not exist any real difference. But if, in addition, the disposition exerts its influence in another manner, so that after its acquisition it modifies the act by which we think of the connection and confers upon it a new specific quality, we are then forced to say that it is rather this quality, and not the indissoluble character of the association from which it is derived, which constitutes the intrinsic difference between judgment and simple imagination. It is for this reason that I con-

sider the error of J. Mill and H. Spencer analogous to that of Bain. In fact, just as Bain confused a property of the consequences with the intrinsic property of judgment, J. Mill and H. Spencer considered as a property of this thought process a characteristic which at best they could have designated as the hypothetical cause of this property.

3. There can be no doubt, then, that the difference between imagination and judgment must be an intrinsic difference between these two thought processes. Granting this, it follows, as we said above, that those who reject our conception of judgment can only look for the difference existing between judgment and simple imagination in either one of the following two things: in a difference of the objects of thought, or in a difference in the perfection with which these objects are thought. Let us first consider the second of these hypotheses.

The difference of perfection of two psychic activities which coincide in their relational modality to the object, as well as in the content to which they refer, can only be a difference of intensity. The question to be investigated, therefore, is to determine if the difference between judgment and imagination consists in the fact that in judgment the content is thought of with a greater intensity, in such a way that an image of an object would become a judgment by a simple increase of its intensity. It is evident that such a conception cannot be correct. According to it, judgment would be merely a more intense image, and an image a weaker judgment. An image, however, no matter how clear, distinct and intense, does not become a judgment,

and, no matter how little confidence we place in it, a judgment is not a mere image. It may certainly happen that vivid images, which we may experience in a state of fever, are mistaken for actually perceived objects. This illusion, to be sure, would not occur if the impressions were less strong. Nevertheless, even though in some instances the intensity of an image leads to a judgment, this image is not itself a judgment, as shown by the fact that the illusion in question may disappear, while the vividness of the image persists. Moreover, in other instances we are firmly convinced of the truth of something, even though the content of judgment is anything but vivid. Finally, if the affirmation of an object were confused with an intense image, how could we conceive the negation of this object?

We would undoubtedly waste our time by dwelling at greater length upon this hypothesis, since it is quite clear from the very beginning that few people will be inclined to defend it. Let us rather try to demonstrate that the other alternative, which might seem more plausible to those who reject our conception, is equally impossible.

4. According to a very common opinion, judgment would consist in a union or separation taking place in the realm of imagination. The affirmative judgment and, under a slightly modified form, the negative judgment, in opposition to simple imagination, are characterized as complex or relative thought processes. According to this conception, what distinguishes judgment from simple imagination would in reality be merely a difference of their content. Every thought bearing upon a certain type of connection or relation

between two characteristics would be a judgment, while every thought which would not entail any such relation ought to be called a simple image.

This opinion, too, is untenable.

Were we to concede that the content of a judgment always consists in some kind of connection of several characteristics, we could indeed distinguish judgment from some, but in no way from all images. For it certainly happens that an act of thinking, which is merely a simple image, has for its content the same union of several characteristics which in another instance, constitutes the object of a judgment. When I say: a tree is green, the term green united to the term tree as its property constitutes the content of my judgment. But someone could ask me: is there a red tree? Not too well acquainted with the vegetative realm, and not bearing in mind the colors of the leaves in Fall, I could refrain from all judgments on this matter. Nonetheless, I would understand the question, and consequently I would have the image of a tree. The term red linked to the term tree, just like the term green before, would form the content of an image which would not be accompanied by any judgment. On the other hand, someone who has only seen trees with red leaves, when questioned about green trees, would perhaps be able to conceive in a simple image a connection of characteristics not only analogous, but even identical to the one which made up the content of my judgment.

James Mill and Herbert Spencer were obviously aware of this fact, since in defining the nature of judgment they did not limit themselves to saying, as most other psychologists do, that the content of judgment consists in a

certain kind of union of the characteristics represented, but added another condition -- the indissolubility of the association. Even Bain deemed it necessary to add a distinguishing element, namely the influence of thought upon action. Their error consisted simply in this: they searched for a complement of judgment not in the act of thinking itself, but in a difference of dispositions or consequences. In this regard, John Stuart Mill was more fortunate. He put great emphasis upon the issue under discussion, and in general, more so than any other philosopher, came close to a correct appraisal of the difference between judgment and imagination.

"It is," he says in his Logic, "of course, true that...when we judge that gold is yellow... we must have the idea of gold and the idea of yellow, and these two ideas must be brought together in our mind. But in the first place, it is evident that this is only part of what takes place; for we may put two ideas together without any act of belief; as when we merely imagine something, such as a golden mountain; or when we actually disbelieve: for in order even to disbelieve that Mahomet was an apostle of God, we must put the idea of Mahomet and that of an apostle of God together. To determine what it is that happens in the case of assent or dissent besides putting two ideas together, is one of the most intricate of metaphysical problems."<sup>1</sup>

In his critical notes on James Mills' Analysis of the Phenomena of the Human Mind, John Stuart Mill investigates this problem more thoroughly. In

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<sup>1</sup> A System of Logic, Book I, ch. 5, 1.



the chapter on predication, he argues against the opinion that would reduce it to a certain order among ideas, just as it reduces the term to the expression of a single idea. He asserts that the characteristic difference between predication and any other form of discourse consists rather in the fact that, instead of presenting our mind with a simple object, predication asserts something about this object; instead of producing merely an image of a certain succession of ideas, it calls forth a belief by showing that this succession is an actual reality.<sup>1</sup> He reiterates this conception several times in this chapter<sup>2</sup> and in subsequent chapters. In the chapter on "Memory" for example, he states that besides the idea of a thing and the idea of having seen such a thing we must add the belief of having seen it.<sup>3</sup> It is in

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<sup>1</sup>"The characteristic difference between a predication and any other form of speech is that it does not merely bring to mind a certain object...; it asserts something respecting it...Whatever view we adopt of the psychological nature of belief, it is necessary to distinguish between the mere suggestion to the mind of a certain order among sensations or ideas—such as takes place when we think of the alphabet, or the numeration table — and the indication that this order is an actual fact which is occurring, or which has occurred once or oftener, or which, in certain definite circumstances, always occurs; which are the things indicated as true by an affirmative predication, and as false by a negative one." (Anal. of the Phenom. of the Human Mind., 2nd ed., ch. IV, sect. 4, note 48, I, 162 ff.)

<sup>2</sup>Ibid., note 55, I, 187.

<sup>3</sup>Ibid., ch. X, note 91, I, 329.

a lengthy note in the chapters on "Belief," however, that he discusses explicitly and in detail the specific nature of judgment in opposition to simple imagination. He shows clearly, once again, that judgment cannot be resolved into simple images, and that it cannot be made up of a simple combination of images. On the contrary, he says that we must recognize that any attempt to derive the former from the latter is bound to failure, and must consider the difference between imagination and judgment as an ultimate and primary fact. At the end of a rather lengthy discussion he asks himself: "what," in short, "is the difference to our minds between thinking of a reality and representing to ourselves an imaginary picture? I confess that I can perceive no escape from the opinion that the distinction is ultimate and primordial."<sup>1</sup> We see then that J. S. Mill recognizes here a difference analogous to that which Kant and other philosophers have affirmed between thinking and feeling. Expressed in their terminology, Mill's statement would amount to saying that imagination and belief, or as we would say, imagination and judgment postulate two different fundamental faculties. According to our terminology, however, his theory implies that imagination and judgment are two absolutely different modes of relation to the same content, two radically different modes of consciousness of an object.

As we said, even granting that in every judgment there is actually a union or separation of characteristics represented—indeed, John Stuart Mill

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<sup>1</sup> Ibid., 412.

was of this opinion<sup>1</sup>---it does not follow that the essential property of judgment, in opposition to simple imagination, consists in such a union or separation. Such a contentual property would suffice to distinguish judgment from some, but in no way all images. This same property, therefore, would not render superfluous the assumption of another and more characteristic property such as the one which we have recognized in the difference of the mode of consciousness.

5. We can proceed even further. It is in no way true that there is in every judgment a union or separation of the characteristics represented in it. No more so than desire or aversion, affirmation and rejection are reducible to syntheses or relations. Even a single characteristic, which is represented, can be affirmed or rejected.

When we say "A exists," this proposition is not, as many people have believed and still believe at the present time, a predicative proposition in which existence as predicate is united with "A" as subject. The object affirmed is not the union of "existence" with "A," but "A" itself. Similarly, when we say "A does not exist," what we deny is not the predication of existence for "A," i.e., the union of "existence" with "A," but it is "A" itself.

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<sup>1</sup>This view is expressed both in his Logic, where he discusses the content of judgment (Book I, ch. 5), and in his notes on the above-mentioned work of his father. For example, he states: "I think it is true that every assertion, every object of Belief,-- everything that can be true or false-- that can be an object of assent or dissent--is some order of sensation or ideas: some coexistence of succession of sensations or ideas actually experienced, or supposed to be capable of being experienced." (Ch. IV, note 48, I, 162).

By way of further clarification, I call attention to the fact that in affirming a whole we also affirm each part of this whole. In affirming a union of characteristics, therefore, we affirm simultaneously each element of this union. In affirming that there exists a learned man, i.e., the union of the term "man" and the term "learned," we implicitly affirm that there exists a man. Let us apply this conclusion to the judgment "A exists." If this judgment consisted in affirming the union of the term "existence" with "A," each element of this union, and consequently also the affirmation of "A" would be implicitly included in it. We could not escape, therefore, from the simple affirmation of "A" could not be differentiated in any way from the affirmation of the union of "A" with the term "existence," which is expressed in the proposition "A exists." It follows that the affirmation of "A" constitutes the true and whole meaning of this proposition, and that consequently nothing else except "A" is the object of judgment.

Let us now consider in the same way the proposition "A does not exist." Perhaps the analysis of this proposition will clarify even further the truth of our conception. When we affirm a whole, we also affirm implicitly each part of this whole; by the same token, however, it does not follow that, when we deny a whole, we also deny implicitly each part of this whole. By denying that there exists white-and-blue swans, we do not thereby deny implicitly the existence of white swans. This is obvious, since it is sufficient for only one part to be false in order that the whole be false. In rejecting a

union of different characteristics, therefore, we do not thereby reject in any way implicitly each individual characteristic which constitutes an element of such a union. For example, by denying the existence of a learned bird, i. e., by denying the union of the term "bird" with the term "learned," we do not thereby deny implicitly the actual existence of a bird or knowledge. Once again, let us apply this conclusion to our case. If the judgment "A does not exist" were the negation of the union between the term "existence" and the term "A," in no way would "A" itself be thereby denied. It is hardly possible, however, that anybody will uphold such a view. On the contrary, it is clear that this is precisely the meaning of the proposition in question. The object of this negative judgment, therefore, is nothing else but "A."

6. The fact that every perception is a judgment also shows quite clearly that predication does not belong to the essence of every judgment. Predication, in fact, is a form of knowledge or, even though erroneous, an affirmation. We have already touched upon this point when speaking of the different phases of inner consciousness.<sup>1</sup> Similarly, other thinkers, who hold that every judgment consists in a union between subject and predicate, do not deny it. J. S. Mill, for example recognizes it explicitly both in the passage quoted above and elsewhere. In that passage, after having asserted that the difference between thinking of a reality and representing to our-

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<sup>1</sup>Book II, ch. 3, §1 ff.

selves an imaginary picture is ultimate and primordial, he adds: "there is no more difficulty in holding it to be so than in holding the difference between a sensation and an idea<sup>1</sup> to be primordial. It seems almost another aspect of the same difference."<sup>2</sup> There can seldom be anything, therefore, which is more obvious and unmistakable than the fact that perception does not consist in the union between a subject and a predicate, and is not connected with such a union; that, on the contrary, the object of an inner perception is simply a psychic phenomenon, and the object of an external perception is simply a physical phenomenon, a sound, odor, or the like. Accordingly, this fact constitutes a clear-cut proof of the truth of our assertion.

But perhaps someone might still entertain some doubt about this matter. Since we do not only say that we perceive a color, a sound, an act of seeing, an act of hearing, but also that we perceive the existence of an act of seeing, or of an act of hearing, someone might be led into the belief that perception, too, consists in the affirmation of the union of the term "existence" with the corresponding phenomenon. Such a misunderstanding of evident facts seems to me next to inconceivable. The untenability of such an opinion, however, will again be brought to light beyond any doubt by our discussion of

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<sup>1</sup>In the sense of Hume. - Cf. above, Book I, ch 1, 2.

<sup>2</sup>Anal. of the Phenom. of the Hum. Mind, I, 412. In the course of the same discussion he also states: "The difference (between recognizing something as a reality in nature, and regarding it as a mere thought of our own) presents itself in its most elementary form in the distinction between a sensation and an idea." (Ibid., 419).

the concept of existence. Some philosophers are of the opinion that this concept cannot be derived from experience. For this reason, in our investigation of so-called innate ideas, we shall have to examine it from this point of view. We shall then find that this concept undoubtedly stems from experience, but from inner experience, and that it has been acquired only with reference to judgment. The concept of existence, therefore, just as the concept of judgment, cannot have been predicate in the first judgment. Thus, once more, it is clear that at least the first perception, that which was given in the first psychic phenomenon, cannot possibly have consisted in such a predication.

In the last (eighth) edition of his Logic, J. S. Mill defines the concept of existence in the following way: "existence signifies the actual or possible excitation of sensations (whatever they might be and no matter how numerous they might be) or of other states of consciousness." Even though I do not agree with it entirely, this definition is nevertheless sufficient to bring forth very clearly the impossibility that in the first sensation the concept of existence has been utilized as predicate of a judgment. Thus, this definition agrees with the one of which we hope to prove the truth, insofar as it could have been derived originally from an analysis of psychic activities which would themselves presuppose the concept of existence and would utilize it as a given datum.

7. With but a few exceptions, philosophers have generally misunderstood the truth that every judgment is not related to a union of the characteristic

represented and does not necessarily imply the attribution of one concept to another. In his critique of the ontological argument for the existence of God, Kant made the pertinent remark that in an existential proposition, i.e., in a proposition of the form "A exists," the term existence "is not a real predicate, i.e., a concept of something which can be added to the concept of a thing." "It is only the position," he says, "of a thing or of certain characteristics in themselves." Accordingly, he should have asserted that the existential proposition is really neither a categorical judgment, nor an analytical judgment in the Kantian sense, i.e., a judgment where the predicate is enclosed in the subject, nor a synthetical judgment in which the subject does not include in itself the predicate.<sup>1</sup> Instead, Kant did not hesitate to classify it among synthetical judgments, thinking that, just as the "is" of the copula usually places two concepts in relation to each other, the "is" in the existential proposition places "the object in relation with my concept."—"The object," he says, "is added synthetically to my concept."<sup>2</sup>

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<sup>1</sup>I am using here Kant's own definition, even though, as we shall see later, it does not actually apply to the judgments in question. This fact, however, does not prevent it from characterizing these judgments sufficiently, in view of its agreement with the opinion commonly held of them.

<sup>2</sup>That Kant classifies existential propositions among categorical judgments can be inferred from his failure to make special mention of them in his table of categories. In the Middle Ages, St. Thomas came as close as Kant to the truth, and, curiously enough, through an analysis of the same proposition—"God exists." According to him, the "is" cannot be any real predicate but merely a sign of judgment (Sum. Theol., P. I, Q. 3, A. 4 ad 2). But he, too, considers this proposition as a categorical proposition (ibid) and believes that the corresponding judgment, as every judgment (Q 16, A 2), contains a comparison of our idea with its object. We have already seen above that this is impossible (Book II, ch. 3, 2, p. 215 ff).



This intermediary position was obscure and contradictory. Herbart eliminated it by clearly distinguishing existential propositions as a particular kind of categorical proposition.<sup>1</sup> This point of view is shared not only by numerous disciples of Herbart, but also, at least to a certain extent, by other philosophers who, such as Trendelenburg, generally impugn the tenets of the Herbartian school.<sup>2</sup>

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<sup>1</sup>Cf. Drobisch, Logic, 3rd ed., p. 61.

<sup>2</sup>Logische Untersuchungen, 2nd ed., II, 208. Cf. also the quotation derived from Schleiermacher (ibid., p. 214, note 1). Glimpses of the correct conception of existential judgments can be found in Aristotle himself. This philosopher, however, does not seem to have understood fully and clearly their nature. In his Metaphysics (I, 10) he teaches that, since truth consists in an agreement of thought with reality, the knowledge of simple objects, in opposition to other kinds of knowledge, cannot possibly be a union or separation of characteristics, but must be a simple act of thinking, a perception (he calls it touch,           ). In De Interpretatione (ch. 3) he clearly states that, in opposition to a noun, the "to be" of the copula does not signify something in itself, but simply completes the expression of a judgment. Nevertheless, he never distinguished the "to be" of the existential judgment from this "to be" of the copula as something that is essentially different and has a meaning by itself. Zeller states with reason: "Nowhere Aristotle says that every judgment, even the existential judgment, logically considered, consists of three elements." Moreover, this same author points out that, on the contrary, from numerous details we are rightly led to believe that Aristotle held the opposite view (Phil. d. Griechen, II, 158, note 2). If this were true, Aristotle would not lag behind the commonly accepted doctrine of subsequent logic, as Zeller himself seems to believe; on the contrary, here as well as on several other points, he would have anticipated a truer conception. (See also the treatment of the Aristotelian doctrine by St. Thomas, Sum. Theol., P. I, Q 85, A. 5).

But this is not all. Even though not all philosophers admit as yet the truth of our conception of the existential proposition, all without exception grant today another truth from which this conception can be rigorously deduced. Even those who misconstrue the nature of the nature of the "is" and of the "is not" in the existential proposition, interpret correctly the nature of the "is" which is added as copula to a subject and predicate. These thinkers believe that the "is" and "is not" of the existential proposition designate something in itself, i.e., that they add the idea of the predicate "existence" to the idea of the subject, and unite these two ideas together. They recognize nevertheless that the "is" and "is not" of the copula do not have any meaning, since they merely change the expression of ideas into the expression of an affirmative or negative judgment. Let us take a look at the interpretation of the existential proposition given by J. S. Mill, which differs from ours. "A predicate and a subject," this author states, "are all that is necessarily required to make up a proposition: but as we cannot conclude from merely seeing two names put together, that they are a predicate and a subject, that is, that one of them is intended to be affirmed or denied of the other, it is necessary that there should be some mode or form of indicating that such is the intention; some sign to distinguish a predication from any other kind of discourse... This function is commonly fulfilled by the word is, when an affirmation is intended; is not, when a negation; or by some other part of the verb to be. The word which thus serves

the purpose of predication is called...the copula."<sup>1</sup> Subsequently, he explicitly draws attention to the difference between the "is" or "is not" of the copula and the "is" which includes in its meaning the concept of existence. This doctrine, however, is not characteristic of J. S. Mill alone; on the contrary, it is shared by all those who oppose our conception of the existential proposition.<sup>2</sup> Not only logicians, but also grammarians and lexicographers advocate it. J. S. Mill is obviously mistaken when he tells us that J. Mill was the first to give a clear exposition of this conception.<sup>3</sup> He could have found a similar exposition, for example, in the *Logic of Port-Royal*.<sup>4</sup>

We are convinced that this concession made with regard to the copula by all our opponents is sufficient to enable us to affirm as a necessary consequence that the "is" or "is not" of the existential proposition cannot exercise any other function. In fact, we can show with utmost clearness that every categorical proposition, without the least change of meaning, can be translated into an existential proposition, and that consequently the "is" or "is not" of the latter take the place of the copula.

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<sup>1</sup>A System of Logic, transl. by Schiel, I, 93.

<sup>2</sup>Cf. Heyses, Wörterbuch der deutschen Sprache.

<sup>3</sup>Ibid., p. 95.

<sup>4</sup>Logique ou l' Art de Penser, Part II, ch. 3.

Let us illustrate this statement by means of some examples.

The categorical proposition "some man is sick" has the same meaning as the existential proposition "a sick man exists" or "there is a sick man."

The categorical proposition "no stone is living" has the same meaning as the existential proposition "a living stone does not exist" or "there is no living stone."

The categorical proposition "all men are mortal" has the same meaning as the existential proposition "an immortal man does not exist" or "there is no immortal man."<sup>1</sup>

The categorical proposition "some man is not learned" has the same meaning as the existential proposition "an unlearned man exists" or "there is an unlearned man."

These four examples illustrate the four classes of categorical propositions usually distinguished by logicians.<sup>2</sup> This fact represents a general proof of the possibility of transforming verbally categorical propositions into existential propositions. Furthermore, it is clear that the "is" or "is not" of the existential proposition is merely an equivalent of the copula,

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<sup>1</sup>Traditional Logic considers the judgments "all men are mortal" and "no man is immortal" to be equipollent (Cf Ueberweg, Logik, 2nd ed., V, 96, 235); in reality they are identical.

<sup>2</sup>The propositions are as follows: particular affirmative, universal negative, and those improperly called universal affirmative and particular negative. In reality, as clearly indicated by our reduction of these propositions to the existential form, no affirmative judgment is universal (for if this were the case, a judgment bearing upon an individual case would have to be called general) and no negative judgment is particular.

therefore, in no way a predicate, and that by itself it has no meaning at all.

Nevertheless, is our reduction of the four types of categorical propositions to existential propositions really justified? Herbart himself, whose doctrine we have previously invoked in support of our point of view, would perhaps object to such a reduction, since his conception of categorical propositions was completely different from ours. According to his opinion, every categorical proposition expresses a hypothetical judgment, and the predicate can be attributed to, or derived from the subject only on the assumption of the existence of the subject. It is precisely on this point that he based his argument in support of the claim that the existential proposition cannot be conceived as a categorical proposition.<sup>1</sup> We believe on the contrary that to the categorical proposition there corresponds a judgment which can be formulated equally well under the existential form, and that truly affirmative categorical propositions contain the affirmation of the subject.<sup>2</sup> Nevertheless, in spite of the fact that we fully accept Herbart's view concerning the "to be" of existential propositions, we can in no way agree with the consequences which he derives from it. On the contrary, we see in this

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<sup>1</sup>Cf. Drobisch, Logik, 2nd ed., p. 59ff.

<sup>2</sup>Truly affirmative propositions are, as was pointed out in a previous note, the so-called particular affirmative and particular negative propositions. It is self-evident that truly negative propositions, among which must be included universal affirmative proposition, do not contain the affirmation of the subject, since they do not really affirm anything, but merely deny something. We have explained above why they do not contain also the rejection of the subject (p. 327).

a striking example of the principle of Aristotle that a true conclusion may be drawn from false premises. It is effrontery to ask us to believe that the proposition "some man is walking," or even the above mentioned proposition "some man is sick," includes the implicit assumption "provided that there exist a man." Similarly, not only it is not true, but it is not even plausible that the proposition "some man is not learned" contains the same assumption. In the proposition "no stone is living," I do not know what the restriction "provided that there exist a stone" might possibly mean. If there were no stones, it would still be just as true that there is no living stone, as is the case now that there exist stones. It is only in the example "all men are mortal," i.e., in the so-called universal affirmative proposition, that such a restriction has a certain appearance of plausibility. This proposition seems to assert the union of the term "man" with the term "mortal." This union evidently does not exist if there does not exist any man. The existence of a man, nevertheless, cannot be deduced from the proposition "all men are mortal." This proposition, therefore, seems to affirm the union of the term "man" with the term "mortal" only in the hypotheses of the existence of a man. This difficulty is completely solved by a simple analysis of the existential proposition equivalent to the categorical proposition. Such an analysis shows that the proposition in question does not actually contain an affirmation, but a negation. For this reason we are able to apply to it what we have pointed out above concerning the proposition "no stone is living."

Besides, if I have taken a stand here against the theory of Herbart that all categorical propositions are hypothetical propositions, I have done so only to justify in detail their conversion into existential propositions given above, and not because I thought that the acceptance of the conception of Herbart would have rendered impossible such a reduction. On the contrary, what I have said of categorical propositions is equally true of hypothetical propositions; these, too, as a whole, can be expressed in existential terms, and we notice then that they are nothing but negative affirmations. One example will suffice to show that the same judgment, without the least modification, can be expressed just as well in the form of a hypothetical proposition as in the form of a categorical or existential proposition. The proposition "if a man does evil, he does wrong to himself" is a hypothetical proposition. In its meaning, it is identical with the categorical proposition: "all evil-doing men do wrong to themselves." The latter, in turn, has no other meaning than that of the existential proposition "an evil-doing man who does not do wrong to himself does not exist," or, to use a more acceptable expression, "there is no evil-doing man who does not do wrong to himself." In view of the clumsy form taken by the expression of judgment in its existential formula, it is easy for us to understand why language had to find other syntactical expressions. The difference between the three types of propositions, however, lies entirely within the limits of a mere difference in verbal expressions. In spite of this, on account of the diversity of propositions, the renowned philosopher of

Königsberg was led to assume the existence of fundamental differences within judgment, and to base special a-prioristic categories upon this "relation of judgments."

It is then beyond doubt that categorical propositions, indeed, all propositions which express a judgment, are reducible to existential propositions.<sup>1</sup> This conclusion can be used in a twofold way to refute the erroneous

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<sup>1</sup>Nevertheless, there are instances in which, for special reasons, one could object to such a reducibility. Even though, I will not interrupt, on their account, the development of my investigation in the text (many readers, in fact, will not have much difficulty with them), it seems to me useful to take them into consideration at least in a note. In the passage in his Logic, where he wants to clarify the different nature of the "to be" of the copula and the "to be" of the existential propositions, which, according to him, encloses the concept of existence, J. S. Mill refers for elucidation to the proposition "a centaur is a fiction of the poets"; where it cannot possibly be implied that a centaur exists, since the proposition itself expressly asserts that the thing has no real existence" (Book I, ch 4, 1). In another instance he adduces, for an analogous purpose, the propositions "Jupiter is a non-ens." In reality, the nature of these propositions is such that, in their case at least, the reducibility to existential proposition seems possible. Once in my correspondence with Mill I had broached the question of existential propositions and had specifically asserted the possibility of reducing every attribution to an existential proposition against his belief that the "to be" of the latter was related to the "to be" of the copula. In his answer Mill persisted in his old point of view. Even though he did not contradict explicitly my statement concerning the reducibility of all other attributions to existential propositions, I had the impression that I had not clarified sufficiently to him this point of my demonstration. For this reason I returned to it in another letter in which I also discussed specifically the examples of his Logic. Since I just found among my papers a rough draft of this letter, I will reproduce here literally this little discussion. "Perhaps it will not be useless," I wrote, "if I demonstrate the possibility of such a reduction with specific reference to a proposition which, in your Logic, you bring forward, so to say, as an example meant to prove the opposite. The proposition 'a centaur is a fiction of the poets' does not imply, as you rightly point out, that a centaur exists, rather it implies the opposite. However, in order to be true, it implies that something else exists, namely a fiction of the poets uniting in a special manner parts of the human organism and parts of the horse. If there were no fiction of the poets,



opinion of those who assert that the essential difference between judgment

the proposition would be false. This proposition, in fact, actually signifies only that 'there is a poetic fiction in which one imagines the upper part of the human body to be united with the trunk of the horse and forming a living being,' or (what means the same) that 'there exists a centaur invented by the poets.' The same thing is true when I say that 'Jupiter is a non-ens,' i.e., that it is something which exists only in the imagination, but not in reality. The truth of the proposition does not imply the existence of a Jupiter, but it does imply the existence of something else. If there were no reality which exists only in the imagination, the proposition would not be true.--The specific reason why, in propositions such as 'a centaur is a fiction of the poets,' we are inclined to doubt their reducibility to existential propositions, lies, in my opinion, in the relation of their predicate with their subject, which up to now has been overlooked by logicians. Just like adjectives do with regard to the noun added to them, predicates of the subject connected with them, ordinarily enrich the concept by means of new attributes; at times, however, they modify the subject. There is enrichment, for example, when I say 'a man is learned': there is modification when I say 'a man is dead.' A learned man is a man, but a dead man is not a man any longer. Thus the proposition 'there is a dead man' does not presuppose, in order to be true, the existence of a man, but only the existence of a dead man. Similarly, the proposition 'a centaur is a fiction' does not imply the existence of a centaur, but only the existence of an invented centaur, i.e., the existence of a fiction of a centaur, etc." This clarification will serve to remove any doubt that might still be entertained by some of my critics. With regard to Mill, it turned out that such a clarification had not been at all necessary, for he wrote to me on February 7, 1873; "You did not, as you seem to suppose, fail to convince me of the invariable convertibility of all categorical affirmative propositions into predications of existence (he means affirmative existential propositions, which obviously I had not characterised as "predications of existence'). The suggestion was new to me, but I at once saw its truth when pointed out. It is not on that point that our difference hinges, etc." Even though Mill agreed with me that all categorical propositions can be reduced to existential propositions, he adhered to his previous opinion that the "is" and "is not" contain in themselves the concept of the predicate "existence." This is clearly indicated by the passage of his letter quoted above; moreover, Mill points it out even more clearly in what follows. How he was able at the same time to abide by his doctrine of the copula, he did not say. In order to be consistent, it would have been necessary for him to abandon it and in general to modify essentially several points in his Logic (as, for example, Book I, ch. 5, 5). Following his invitation to join him in Avignon at the beginning of that summer, I had hoped that, by discussing orally this and many other questions pending between us, I would have been able to reach more easily an understanding with him. For this reason, I did not press this issue any further. His sudden death thwarted my

and imagination consists in the fact that judgment has for content a union of characteristics. For one thing, through the reduction of categorical propositions to existential propositions, the "to be" of the latter takes the place of the copula and consequently, just like the copula, is shown to contain no predicate. In addition, it is quite evident that what one has believed to be so essential for the universal and specific nature of judgment, i.e., the union of different elements, the combination of subject and predicate, of antecedent and consequent, etc., is in reality only a matter of linguistic expression.

If this had been recognized from the beginning, probably no one would have arrived at the idea that images and judgment should be distinguished from each other because the content of the former is a simple thought, and the content of the latter a complex one. In fact, with regard to content, there is no difference at all between them. In affirmation, in negation, in simple interrogation, it is the same object which is present in consciousness:

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hopes. I shall add only a brief remark to my debate with Mill. In the true sense of the term, propositions such as "a man is dead" should not be called categorical, since the predicate "dead" does not contain an attribute, but, as we have said, a modification of the subject. What would one think of this categorical syllogism: "all men are living beings; some man is dead; therefore, some dead being is a living being?" If the minor proposition were a true categorical proposition, it would be a valid syllogism of the third figure. If with Kant we wanted to assume that to the different forms of attribution there corresponds different classes of "relation" of judgment, we would have to make new "transcendental" discoveries. In reality, it is easy to cast aside this particular form of attribution, since the existential proposition "there is a dead man" has exactly the same meaning. I hope, therefore, that the preceding analysis will put an end to the practice of mistaking linguistic differences for differences of thought.

in the last case as simply represented, in the first two instances simultaneously as represented and as affirmed or rejected. In addition, every object which is the content of an act of imagination can also become, under certain circumstances, the content of a judgment.

8. Let us briefly recapitulate the course of our investigation in its most essential phases. We said that, even though some thinkers do not grant that the difference between imagination and judgment is analogous to that between imagination and will, i.e., a difference in the mode of relation to the object, nobody refuses to admit a certain difference between them. This difference, however, could not possibly be a purely external difference, i.e., a difference in their causes or consequences. On the contrary, if we exclude the diversity of relational modalities, it can only be conceived in the following two ways: either as a difference in the object of thinking, or as a difference in the intensity with which this object is thought. We examined both hypotheses. We have immediately recognized the weakness of the second hypothesis. In addition, upon closer analysis, we saw that the first hypothesis, even though more plausible at first sight, was actually altogether untenable. While an opinion still widely held asserts that imagination bears upon a simple object and judgment upon a complex one, upon a union or separation of attributes, we have on the contrary demonstrated that simple images have as content complex objects, and judgments simple ones. We have shown that the union of subject and predicate and other similar connections do not belong in any way to the essence of judgment. We have substantiated this claim through an analysis of affirmative and negative existential propo-

sitions; in addition, we have confirmed it through a reference to our perceptions, especially our first perceptions, and finally through a reduction of categorical, indeed, all types of attributions, to existential propositions. Consequently, no more than a difference of intensity, a difference of content can constitute the characteristic property of judgment in opposition to imagination. Thus, there is no other alternative but to conceive, as we have done, this characteristic property as a special kind of relation of consciousness to its immanent object.

9. I believe that the above discussion strongly confirms our thesis, removing all doubts on this matter. In view of the fundamental importance of this question, however, we are going to examine closely once more, and from a different angle, the difference between imagination and judgment. In fact, it is not simply the impossibility to find some other explanation for this difference, but many other considerations which point to the truth which, as we have stated, is immediately given in direct experience.

To this end, let us compare the relation of imagination and judgment with the relation between two classes of phenomena whose fundamental difference in their relation to the object is beyond question, namely the relation between imagination and the phenomena of love or hate. It is beyond doubt that an object, which is at the same time represented and loved, or represented and hated, has a double intentional existence in consciousness. This is equally true, however, with regard to an object which is simultaneously represented and affirmed, or represented and denied.

In both instances, all the circumstances are analogous and show that a second mode of consciousness fundamentally different from the first is added to it.

Let us examine this point in detail.

Among images, we do not find any contraries, except those of the objects which are enclosed in them. Insofar as, for example, warm and cold, light and darkness, a high-pitched and a low-pitched sound constitute such contraries, we can say that the image of the one is opposed to that of the other. There is absolutely no other type of opposition in the entire domain of these psychic activities.

When love or hate are added to an image there arises an entirely different kind of opposition. This opposition is not an opposition of objects, since the same object can be loved or hated, but instead an opposition in the relations between subject and object. This fact clearly indicates that we are dealing here with a class of phenomena in which the nature of the relation between subject and object is altogether different than in images.

An entirely analogous opposition manifests itself also clearly in the domain of psychic phenomena when, instead of loving or hating, we affirm or deny the object represented.

In imagination there is no other intensity beyond the greater or lesser degree of acuity and vividness of the phenomenon itself.<sup>1</sup>

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<sup>1</sup>With regard to the following, see the discussion in the appendix and my Untersuchungen zur Sinnespsychologie, to which I refer in such a discussion (Note of 1911).

When love and hate are added to imagination, however, they introduce a new kind of intensity, i.e., a greater or lesser degree of energy, violence or moderation in the strength of these feelings.

In an altogether analogous manner, we also find an entirely new kind of intensity when judgment is added to simple imagination. It is evident, in fact, that the greater or lesser degree of certainty in conviction or opinion, rather than to the difference in the intensity of images, is more related to the difference in the intensity of love.

Furthermore, in imagination there is no virtue, no moral perversity, no truth, no error. All this is intrinsically foreign to it; at best, it is only by homonymy that we may call an image morally good or bad, true or false. For example, an image is called bad because whoever loves the object represented sins; false, because whoever affirms the object represented falls into error; or also, because implied in it there is a danger of such a love, of such an affirmation.<sup>1</sup>

The domain of love and hate, therefore, shows us an absolutely new kind of perfection and imperfection which is not found at all in the domain of imagination. As love and hate are added to the phenomena of imagination, moral good and evil enter into the field of psychic activities; at least this is what happens frequently when we deal with beings endowed with psychic life, which are responsible for their actions.

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<sup>1</sup>With regard to Aristotle's remarks on this issue, see my treatise Von der mannigfachen Bedeutung des Seienden nach Aristoteles, p. 31 f.

The same is true of judgment. The other kind of perfection and imperfection, which is completely new and of such great importance, and which, as we have said, is entirely lacking in simple imagination, is the property of the domain of judgment. Just as love and hate imply virtue of perversity, affirmation and negation imply truth or error.

We shall add one more remark. Even though not independent from the laws governing the course of imagination, love and hate, as a special kind of phenomena possessing a fundamentally different modality of consciousness, are subject to special laws of succession and evolution, which constitute the main psychological foundation of ethics. Very frequently an object is loved or hated on account of another, while in itself it would in no way arouse our love or hate or perhaps it would only arouse an emotion opposite to the one actually experienced. In addition, once it is carried over in this manner, love becomes permanently attached to the new object without any consideration as to its origin.

Even in this respect, we find an absolutely analogous fact in judgments. Here, too, besides the general laws governing the course of imagination, whose influence in the domain of judgment must not be overlooked, we find other special laws, which are particularly valuable for judgments, and which bear the same relation to logic as the laws of love and hate do to ethics. Just as, following special laws, our love for an object may result from the love which we have for another object, a judgment may be deduced from another according to special laws.

J. S. Mill rightly states in his Logic: "In respect of belief, the psychologist will always have to inquire what beliefs we have intuitively, and according to what laws one belief produces another; what are the laws in virtue of which one thing is recognized by the mind, either rightly or erroneously as evidence of another thing. In regard to desire, he will examine what objects we desire naturally, and by what causes we are made to desire things originally indifferent or even disagreeable to us; and so forth."<sup>1</sup> Accordingly in his note on the Analysis of J. Mill, he not only rejects the opinion of this author as well as that of Spencer reducing belief to a close and inseparable association of ideas, but also denies, as these two thinkers had to assume of necessity, that belief is founded entirely upon the laws of association of ideas. "If belief," he says, "is only an inseparable association, belief is only a matter of habit and accident, and not of reason. Assurdedly an association, however close, between two ideas, is not a sufficient ground for belief; is not evidence that the corresponding facts are united in external nature. The theory seems to destroy all distinctions between the belief of the wise, which is regulated by evidence and conforms to the real successions and coexistence of the facts of the universe, and the belief of the fool, which is mechanically produced by any accidental association that suggests the idea of a succession or coexistence to the mind: a belief aptly

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<sup>1</sup> A System of Logic, Book VI, Ch. 4, 3.



characterized by the popular expression, believing a thing because they have taken it into their heads."<sup>1</sup>

It would be superfluous to dwell further on a point which is sufficiently clear and, with only rare exceptions, is recognized by all thinkers. Subsequent discussions will throw further light upon what we have just said about the special laws of judgments and emotions.<sup>2</sup>

The conclusion stemming from the preceding discussion is as follows: the analogy of all concomitant relations reveals anew that, if we admit a fundamental difference in their relation to the object between imagination and love, and in general between any two different psychic phenomena, we must also admit that such a difference exists between judgment and imagination.

10. Let us summarize the arguments in favor of this truth:

1) Inner experience reveals immediately the difference in the relation to their content between imagination and judgment, as we assert it.

2) If such a relation were not of this nature, there would not be any relation between imagination and judgment. Neither the hypothesis of a difference of intensity, nor the hypothesis of a different content for simple imagination and judgment are tenable.

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<sup>1</sup>Op. cit., ch XI, note 108; I, 407.

<sup>2</sup>Books IV and V (unpublished). (Note of 1911).

3) When we compare the difference between imagination and judgment with other instances of differences among psychic acts, we find in it all the characteristics which are present whenever the relations of consciousness to an object take on an entirely different form. Consequently, if we do not admit such a difference in the present instance, we could not admit it in any other case within the psychic domain.

11. There remains one more difficulty to be solved. Besides the error present in the commonly held opinion, we must also show the reasons for such an error.

The reasons for deception were, it seems to me, of two kinds. The first reason was a psychological one, i.e., a psychic fact which favors such a deception; the second, a linguistic one.

The psychological reason seems to me to lie mainly in the fact that every act of consciousness, however simple it may be, as for example the act in which I represent a sound, contains simultaneously an image and a judgment, a knowledge—the knowledge of psychic phenomena in inner consciousness, the universality of which we have already demonstrated above.<sup>1</sup> This circumstance has led many thinkers to subsume all psychic phenomena under the concept of cognition as under a general unity; similarly, it has induced others to include in the same class at least imagination and judgment, since they never occur separately, and to establish new and special classes only for phenomena which, like love and hate, are superadded to imagination in certain

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<sup>1</sup>Book II, ch. 3. (Note of 1911).

special cases.

To justify this remark, I need only recall a passage from Hamilton already quoted above: "It is evident that every mental phenomenon is either an act of knowledge, or only possible through an act of knowledge, for consciousness is a knowledge--a phenomenon of cognition; and, on this principle, many philosophers--as Descartes, Leibnitz, Spinoza, Wolff, Platner, and others--have been led to regard the knowing, or representative faculty, as they called it, the faculty of cognition, as the fundamental power of the mind from which all others are derivatives. To this the answer is easy. These philosophers did not observe that, although pleasure and pain--although desire and volition, are only as they are known to be; yet in these modifications, a quality, a phenomenon of mind, absolutely new, has been super-added, which was never involved in, and could, therefore, never have been evolved out of the mere faculty of knowledge. The faculty of knowledge is certainly the first in order, inasmuch as it is the conditio sine qua non of the others, etc."<sup>1</sup>

As we can easily see, it is the fact that no psychic phenomenon is possible unless it is accompanied by inner knowledge which led Hamilton to believe that knowledge precedes all other psychic phenomena, and, since he places knowledge and representation in the same class, to recognize only feeling and conation as other special classes of such phenomena. It is not

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<sup>1</sup>Lectures on Metaphysics, I, 187.

true, however, that knowledge is the first psychic act. To be sure, it is present in all psychic acts, and consequently also in the first one, but only in a secondary manner. The primary object of the act is not always known (otherwise all questions and investigations related to it would be superfluous), but often, and in the simplest acts, it is only represented. Moreover, even with regard to the secondary object, knowledge, to a certain degree, constitutes only a second moment. Knowledge, in fact, like every judgment, presupposes an image of the object judged; it is this image, therefore, which is first (if not in time, at least by nature).

Just as Hamilton did with respect to knowledge, we could vindicate the primacy of feeling in the succession of psychic phenomena. On this basis, we could then identify feeling with imagination and judgment, since, as we have seen, a feeling is present in every psychic act as a secondary phenomenon.<sup>1</sup> This universality of feeling, however, has not led, at least not as frequently as the universality of concomitant inner perception, to a similar misconception, obviously because of the following two reasons: on the one hand, the omnipresence of feeling has not been admitted as generally as that of inner perception, and on the other, certain images leave us at least relatively indifferent, and the same image at different times is accompanied by different, indeed, opposite feelings.<sup>2</sup> Inner perception, on the contrary, exists always and invariably in consciousness with the same fullness of con-

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<sup>1</sup>Cf. Book II, ch. 3, 6.--See also the appendix and my Untersuchungen zur Sinnespsychologie. (Note of 1911).

<sup>2</sup>Ibid.

viction, and when its intensity changes, such a change is always proportionate to that of the phenomenon accompanying it.<sup>1</sup>

This then is what I have called the psychological reason of the error under discussion.

12. Besides this reason, as we have said, there is a linguistic one. We cannot expect that relations which led even ingenious thinkers into error would not have exerted an influence upon ordinary opinions. It is from these opinions, however, that language develops. Consequently, we must expect as a matter of course that among the terms used in everyday life to designate psychic activities there is one which is applicable to both imagination and judgment, but not to any other phenomenon, and consequently encompasses both as belonging to a broader homogeneous class. This is actually the case. With the same ease we apply the term thinking with reference to both imagination and judgment; we cannot, however, apply the same expression to a feeling or a volition, without doing violence to its meaning. Similarly, we find in foreign languages, both ancient and modern, terms which are used in the same context.

No one who knows the history of scientific endeavors will contradict me, if I attribute to this fact a detrimental influence. Since very renowned modern philosophers have repeatedly been victims of the paralogism of equi-

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<sup>1</sup>Ibid., 4.

vocation, we might reasonably expect them to have also been deceived by homonyms in the classification of certain phenomena. In his History of Inductive Sciences, Whewell gives us numerous examples of this error and related errors. Language, in fact, has often united phenomena which were absolutely heterogeneous and has distinguished others which did not differ in any way. In this respect, the scholastics were not the only ones to base distinctions upon mere words. It is natural, therefore, that in our case the homonymy of the term "thinking" has exerted a detrimental influence.

13. Another peculiarity of linguistic expression has undoubtedly made it even more difficult to know the true relation among psychic activities.

The statement of a judgment, it can be said, is usually a proposition, a combination of different words. This is easily understood also from our point of view, according to which an image constitutes the basis for a judgment, and affirmative and negative judgments coincide with regard to the subject matter to which they refer, since the negative judgment simply denies the object affirmed by the corresponding affirmative judgment. The expression of judgment was undoubtedly the prime goal of verbal communication; because of this very fact, however, there was a great temptation not to employ in connection with it the simplest expression, the term alone. In utilizing the term by itself as the expression of an image serving as a common basis for a pair of judgments, and adding, in order to be able to express the judgments themselves, a double kind of flexion or a double kind of stereotyped simple words (such as "to be" and "not to be"), memory was spared,

by means of this simple device, half of its task, since the same words are used both in affirmative and in the corresponding negative judgments. Besides this, by omitting these complementary signs, one had the advantage of having a pure and simple expression for another class of phenomena, i.e., the phenomena of imagination; furthermore, since images are also the foundation of desire and feeling, such an expression could render further worthwhile services in the form of questions, exclamations, commands, etc.

It was inevitable, therefore, that, long before the beginnings of a truly scientific investigation, the expression of judgment had become a combination of several easily discernible elements.

It is this fact which led to the opinion that judgment itself must likewise be a composite, of course, a composite of ideas,<sup>1</sup> since most words express ideas. Once this viewpoint was considered to be an established fact, such a fact was assumed to constitute a characteristic distinguishing judgment from imagination; moreover, there was no longer felt the need of any investigation to ascertain if such a characteristic could constitute the entire difference between imagination and judgment, or even if such a difference could at all be conceived in this way.

All this explains quite well why the true relation between two fundamentally different classes of psychic phenomena has remained unknown for so long.

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<sup>1</sup>Of. Aristotle, De Interpretatione, ch. 1.

14. Meanwhile, this false principle naturally led to manifold offshoots of the error under discussion. In its turn, through further ramifications, this error was extended not only into the domain of psychology, but also into that of metaphysics and logic. The ontological argument for the existence of God is but one of its fruits. The fierce disputes of the scholastics in the Middle Ages concerning essentia and esse, indeed, concerning the esse essentiae and the esse existentiae, bear witness to the convulsive efforts by which the human mind tried to master this indigestible element. St. Thomas, Scotus, Ockham, Suarez, all took an active part in this fight; each one of them was right in such a controversy, but none was right in his positive assertions. The question always reverts back to whether the existence of the essence differs from, or is the same reality as the essence. Scotus, Ockham, Suarez rightly deny that it is another reality (which, especially in Scotus, should be highly appreciated and considered almost a miracle); on account of this, however, they fall into the error of thinking that the existence of a thing is a part of its own essence, and that consequently existence is the most universal concept. On this point, their Thomistic adversaries were right, although their critique did not touch upon the true weak point, but rested principally on the foundation of erroneous assumptions common to both sides. Now, they ask, could the existence of a thing be its most universal concept? -- This is impossible, for its existence would then flow from its definition, and consequently the existence of creatures would be as evident in itself and as prime a necessity as the exis-



tence of their creator. The only thing which flows from the definition of a created being is that it is not contradictory and thus possible. The essence of a creature, therefore, resides solely in its possibility, so that every real creature is composed of two elements, potency and act, of which one is asserted of the other in the existential proposition, and which are related to one another in the same way as matter and form in corporeal beings are related to one another, according to the doctrine of Aristotle. The limits of potency are naturally those of the act which is enclosed in it. Thus existence, which is unlimited and all-inclusive in itself, is limited in the creature. It is entirely different in the case of God. He is being necessary in itself, to whom is referred everything which exists only accidentally. Consequently, he is not composed of potency and act. His essence is his existence; the assertion that he does not exist is a contradiction. Similarly, it is precisely for this reason that he is infinite. Not being enclosed in any potency, his existence is unlimited; he is thus the epitome of all reality and all perfection.

These are lofty speculations, which nevertheless will no longer enable anyone to rise above the clouds. What is significant here is that such an eminent thinker, as St. Thomas undoubtedly was, truly believed that he had demonstrated in this fashion the infinite perfection of the first cause of creation. After this, I no longer need to refer the reader to well-known examples of modern metaphysics, which would only confirm the tragic influence exerted by erroneous conceptions of judgment and issues intimately connected

with it.<sup>1</sup>

15. In logic, likewise, the misconception of the essence of judgment has necessarily engendered further errors. From this point of view, I have followed this line of thought to its consequences and have found that it leads to nothing less than a complete overthrow, but at the same time also to a reconstruction of elementary logic. In addition, everything becomes more simple, clearer, and more exact. I shall limit myself to show by means of some examples the contrast between the rules of this reformed logic and those of traditional logic, since a complete exposition and proof of such a contrast would excessively detain us and would lead us too far from our theme.<sup>2</sup>

I replace the old rules of the categorical syllogism with the three principal rules given below, which permit an immediate application to each figure, and alone suffice for the verification of every syllogism:

1) Every categorical syllogism includes four terms, two of which are opposed to each other, and the other two appear twice.

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<sup>1</sup>We have already pointed out above the influences upon the transcendental philosophy of Kant.

<sup>2</sup>As a preparation for my lectures on Logic, which I gave in the winter of 1870-71 at the University of Würzburg, I elaborated in detail and systematically the rudiments of a logical doctrine on this new basis. Since it aroused interest, not only among my students, but also among the philosophers to whom I had submitted it, I have the intention, once my Psychology is published, to revise it and to edit it. The rules given here in the text by way of examples, together with other rules, will find in that work the type of accurate foundation which the reader is certainly entitled to demand of someone who is opposing the entire tradition since Aristotle. Besides, many readers will perhaps recognize by themselves the necessary connection between this theory and our theory concerning the nature of judgment. (Cf. Franz Hillebrand, Die neuen Theorien der Kategorischen Schlüsse, Vienna, 1891) (Note of 1911).

2) If the conclusion is negative, each premise has in common with it its quality and one of the terms.

3) If the conclusion is affirmative, one of the premises has in common with it its quality and one of the terms, and the other has the opposite quality and the opposite term.

These are rules which a logician of the old school could not possibly hear without horror. Each syllogism ought to have four terms; yet he has always condemned the quaternio terminorum as a paralogism.<sup>1</sup> Negative conclusions ought to have only negative premises; yet he has always taught that nothing can follow from two negative premises. Even among the premises of an affirmative conclusion there ought to be a negative judgment; yet he would have sworn that this conclusion always demands two affirmative propositions. Indeed, there is no longer any room for a categorical conclusion being derived from two affirmative premises; yet he has always insisted in his lectures that affirmative premises were better, by qualifying as pejor pars the negative premise whenever it happens to be associated with an affirmative premise. Lastly, no mention is made in these new rules of "universal" and

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<sup>1</sup>Very recently, an English logician, Boole, has also rightly recognized that many categorical syllogisms have four terms, two of which stand in contradictory opposition with one another. Others have subscribed to his opinion, and Bain himself, who speaks at length, in his Logic, of Boole's contributions to the theory of syllogism, is clearly of the opinion (I, 205). Boole, it is true, simply places these syllogisms with four terms beside syllogisms with three terms, instead of admitting the quaternio terminorum as the general rule; in addition, his whole method of deduction bears no similarity whatsoever to mine. Nevertheless, his point of view is of interest to me as a sign that also on the other side of the channel logicians are beginning to call into question the laws relative to the three terms of syllogism.

"particular" premises; yet, so to say, he has always had these expressions on his lips. Moreover, have his old rules not been demonstrated in the verification of syllogisms in such a way that, in their turn, thousands of conclusions deduced according to their standards are now used as their proof and confirmation? Shall we no longer admit as binding the famous syllogism: "All men are mortal; Cain is a man; therefore, Cain is mortal," as well as all similar ones?-- This appears to be an impossible pretension.

Actually, the situation is not this serious. The errors which stemmed from the old rules of syllogistic theory consisted in a misconception of the nature of judgment according to both content and form. For the most part, therefore, their harmful influence was counterbalanced by firmly adhering to the consequences of those rules.<sup>1</sup> Among all the syllogisms which were declared valid according to such old rules, only those deduced according to four modes were not valid; on the other hand, however, not an insignificant number of valid modes were overlooked.<sup>2</sup>

The consequences were more harmful in the case of the doctrine of so-called immediate inferences. Traditional logic not only asserted, as the

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<sup>1</sup>In saying, for example, as a result of a misunderstanding of propositions, that three terms were necessary for a valid categorical syllogism, logicians were led by this same misunderstanding to see in certain syllogisms only three terms, while in reality there were four.

<sup>2</sup>The English logicians mentioned before have already recognized this point. The four invalid modes, of which I speak, are Darapti and Felapton, in the third figure, and Bamalip and Fesapo, in the fourth.

true rule for the conversion of syllogisms, that every categorical syllogism is simply convertible (provided that we see clearly the true subject and the true predicate), but at the same time considered as valid many conversions which were not truly valid, and vice versa. The same applies to so-called inferences by subalternations and opposition.<sup>1</sup> Besides, when we compare the old rules among themselves, we reach the rather strange conclusion that sometimes they contradict themselves so that what is valid according to one of them is invalid according to another.

16. We leave to a future revision of logic the task of verifying and developing in detail this "reformed" logic.<sup>2</sup> We are less concerned here with the harmful consequences which the misconception of the nature of judgment has entailed for logic or metaphysics than with those which have resulted for psychology, and which, on account of the relation between psychology and logic, have also undoubtedly constituted a new obstacle to the fruitful development of this science. It can be said that up to now psychology has failed to investigate the laws of the origin of judgment. The reason for this stemmed from the fact that imagination and judgment were always grouped to-

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<sup>1</sup>The conversion of a universal affirmative proposition into a particular affirmative proposition is inadmissible; the usual inferences by subalternation are never valid; likewise, among inferences by opposition, those which are drawn from the falsity of contraries or the truth of sub-contraries are never valid.

<sup>2</sup>Cf. the work of Frans Hillenbrand mentioned above, which has since been published. This book dwells at some length upon this point.

gether in the same class as "thinking" so that, in investigating the laws of the succession of images, the problem of judgment was also believed to be solved. Such is the opinion of so eminent a psychologist as Lotze himself: "With regard to the power of judgment and the power of imagination we must unhesitatingly grant that they do not form part of the native endowment of the soul, but are capabilities developed in the organization of life, the one slowly, the other quickly. We must at the same time acknowledge that the laws governing the process of association are sufficient to explain their origin."<sup>1</sup> This statement shows that the reason for this great neglect lies in a defective classification which Lotze borrowed from Kant.

J. S. Mill understood this question better. In the passages quoted above, we saw that he laid great stress upon the inescapable necessity for a specific study of the laws of judgment. He considered it absolutely insufficient to deduce them from the connection of images. Nevertheless, in spite of his otherwise correct views on the nature of judgment, he always held that the connections of images, the union of subject and predicate, was essential to it. As a result, he was unable to bring forth sufficiently the nature of judgment as a special fundamental class of psychic phenomena equal to the other classes. Similarly, it is because of this reason that Bain, whose opinion was so close to that of Mill, has never utilized his suggestions to fill in this wide-open gap in psychology.

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<sup>1</sup>Mikrokosmos, 1st edit., I, 192.

The phrase which the Scholastics inherited from Aristotle: parvus error  
in principio maximus in fine, is thus completely verified in our case.

## CHAPTER VIII

### UNITY OF THE FUNDAMENTAL CLASS OF FEELING AND WILL

1. Having established that imagination and judgment are two distinct fundamental classes of psychic phenomena, it remains for us to justify our departure from the usual classification in another respect. Just as we separate imagination and judgment, we unite feeling and will.

This innovation is less revolutionary than the preceding one, since from Aristotle to Tetens, Mendelssohn and Kant, feeling and appetite have generally been reduced to a single fundamental class. Among contemporary leading psychologists, we saw that Herbert Spencer distinguished only two aspects of psychic life, cognitive and affective. In view of the importance of this question, however, this should not deter us from using all the means at our disposal and the same care to justify and establish firmly our doctrine.

We shall follow the same procedure as we have done in our investigations of the relations of imagination and judgment. Consequently, we shall base ourselves above all upon the testimony of direct experience. Inner perception we say, shows us clearly in the present case the absence, and in the former the presence of a fundamental difference; here, absolute accord, there a complete differences in the mode of relation to the object.

If the sphere of psychic phenomena which we are now going to treat actually revealed a difference as profound as that between imagination and judgment; if nature had really drawn a clear line of demarcation between feeling and appetite, errors could perhaps creep into the definition of the



particular nature of these two classes, but it would certainly be easy to delimit the kinds of phenomena to be assigned to each of them. We say without hesitation that the word man indicates a simple image, and that the expression: there are men, states a judgment, even when we are completely undecided as to the nature of judgment. The same thing holds for the whole domain of these two classes of thought processes. The situation, however, is entirely different when the question arises as to the nature of a feeling, a desire, an act of will or an appetite. For my part, I do not really know exactly where the dividing line between these two classes should lie. Between feelings of pleasure and displeasure and what we usually call volition or appetite are found other phenomena; and it may seem that there is a big difference between their extremes. But when we consider the states lying in the middle, and when we compare each phenomenon only with the one which immediately precedes or follows it, no gap is found in this entire field; instead, transitions occur gradually.

Let us take as an example the following series: sadness--desire for the good which we regret not having--hope that it will come to us--desire to procure it for ourselves--courage to undertake the attempt--voluntary decision to act. The one extreme is a feeling, the other an act of the will; and they appear to stand far apart from each other. However, if we consider only the intermediate terms and compare only the two terms which follow each other immediately, do we not find everywhere the closest union and an almost imperceptible transition? If we wish to classify them and distinguish them as

feeling and appetite, into which of the two fundamental classes shall we place each of them? We say: "I feel the desire, I feel the hope, I feel the longing to secure this, I feel the courage to attempt this," but no one will say that he feels a voluntary decision. Would this perhaps be the line of demarcation and would all the intermediary terms still belong to the fundamental class of feelings? If we permit ourselves to be determined by current popular language, we will undoubtedly think so; and, in fact, sadness brought about by deprivation and the desire for possession are at least pretty nearly in the same relation as the negation of an object and the affirmation of its non-existence. In spite of this, does not the desire contain already the germ of appetite? and does not this appetite arise from hope and unfold in the thought of an eventual personal activity, in the desire to act and in the courage for such an action, until finally the desire to act outweighs at the same time the fear of sacrifice and the desire for further reflection, and thus matures into a voluntary decision? Certainly, if we want to divide this sequence of phenomena into several fundamental classes, we cannot oppose the intermediate terms, together with the first, to the last calling them feelings, just as we cannot oppose them, together with the last, to the first and call them volitions or appetite; on the contrary, we cannot but consider each phenomenon as a separate class. However, I believe, it is also evident that the differences of classes would not be here as profound and as clear-cut as those between imagination and judgment, or between these phenomena and all the other psychic phenomena. Thus the nature of our inner phenomena

forces us to extend the unity of the same fundamental natural class to the whole realm of feeling and appetite.<sup>1</sup>

<sup>1</sup>It is interesting and instructive to observe the vain efforts of psychologists to establish a clear line of demarcation between feeling and volition or appetite. Thereby they contradict the traditional usage of language; moreover, they contradict one another and, indeed, frequently they even contradict themselves. Kant puts desire without hope, i.e., desire of a thing recognized as impossible, in the appetitive faculty, and I do not doubt in the least that he could as well have placed remorse there. This agrees just as little with the usual meaning of the term, when we speak of a feeling of desire, as with his definition of the appetitive faculty as a "faculty which through cognition is the cause of the reality of the objects of cognition." (op. cit., p. 21). Hamilton is frankly astonished that we frequently confuse the phenomena of the two classes, since it is so easy to recognize the natural limit which separates them. (Lect. on Metaph. II, 433); but his repeated vain efforts to give a precise definition of them show that it is by no means an easy task. He affirms, as we have already seen, that in the full sense of the term, feelings are objectless, "subjectively subjective" (II, 432; cf. also p. 21) while "conation" tends toward an object. This, it seems, ought to furnish a simple and easily applicable criterion. And it should certainly be so, if the definition corresponded to the specific property of the phenomena; however, since this definition is actually false, Hamilton has not been able to reach this goal. Indeed, everybody admits that even the most authentic feelings, such as joy and sorrow, seem to have an object. Besides, Hamilton sets down still another difference which is perhaps contradictory to the first; he affirms that feeling is concerned only with the present, whereas "conation" tends toward the future. "Pain and pleasure as feelings," he says "belong exclusively to the present, whereas conation has reference only to the future, for conation is a longing--a striving, either to maintain the continuance of the present state or to exchange it for another." (II, 483). These definitions are not defective, as the preceding ones, because no psychic phenomenon corresponds in reality to one of them. But this is the only complimentary thing we can say, for the distinction of the psychological field according to the present and the future is as incomplete as it is arbitrary. It is incomplete, for where shall we place the emotions which, instead of relating to the present or future, relate to the past, such as remorse and gratitude? It would be necessary to create a third class of phenomena to account for these emotions, but this would be the least evil. Much worse is the arbitrariness with which, considering the different temporal attributes of objects, it would be necessary to place in different fundamental classes psychic phenomena that are essentially the same, such as the phenomena which we ordinarily call wishes and which relate to the present, past or future. I wish to see you often; I would like to be rich; I wish I had not done that;

2. If there is only one fundamental class which embraces the phenomena of feeling and volition, according to the principle of classification which we have adopted, it is necessary that the mode of relation of consciousness to the object be essentially kindred in both cases. But what will be the common characteristic of their relation with the objects? If our viewpoint

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these are three examples which represent all three tenses. And although the last two wishes are vain and have no chance of succeeding, the general nature of the wish remains no less safeguarded, as Kant himself, Hamilton's most distinguished authority, recognizes. However, it may happen that a wish refers to something of the past without implying a manifest impossibility, as in the case of a person wishing that his brother had arrived safely in America. Are we going to suppose that the psychic states united by language under the name of wishes have no bond of relationships at all? Are we going to distinguish them from one another and place one group among the acts of the will and the other with pleasure and displeasure, and the latter into a class to be set up for past states? Nobody, I believe, can miss seeing how unjustifiable and unnatural such a procedure would be. Once more, we have not succeeded in drawing the line of demarcation between feelings and appetite. Need we then be astonished if Hamilton himself has not escaped the confusion between feelings and conation of which he accuses others? If we take the definitions which he gives of special phenomena, it is often difficult for us to surmise into which of his two fundamental classes he wishes to place one or the other. He defines vanity as "the wish to please others from the desire of being respected by them," and counts it among feelings (II, 519); similarly, among feelings he includes remorse and shame, that is, "the fear and sorrow at incurring their disrespect," as if in the two cases the "conation" toward an object and the relation with a reality which does not belong to the present were not equally evident. (For remorse, this is obvious; as far as shame is concerned, it is deduced from the definition of Hamilton). This total failure of so eminent a thinker confirms, I believe, in a striking manner my opinion about the absence of a line of demarcation clearly drawn by nature itself between the two alleged fundamental classes.

is correct, here again inner experience will provide the answer. It actually does so and thus gives us a direct proof of the unity of this fundamental class of psychic phenomena.

The general nature of judgment consists in the fact that something is admitted or rejected. In the same way, according to the testimony of inner experience, the sphere of psychic phenomena under discussion has as its general characteristic a certain acceptance or a certain rejection, not in the same, but in an analogous sense. If an object can become the content of a judgment, insofar as it can be admitted as true or rejected as false, it can also become the content of a phenomenon of the third fundamental class, insofar as, in the broadest sense of the term, it can be accepted as good and rejected as bad. In one case we are dealing with the truth and falsehood, and in the other with the value or absence of value of an object.

No one, I believe, will ascribe to me the intention of affirming that the phenomena of this class are acts of knowledge by which we would perceive the good or evil, the value or lack of value present in certain objects. However, in order to make absolutely impossible any interpretation of this kind, I note explicitly that this would be a complete misunderstanding of my actual opinion. Otherwise, on the one hand I would classify these phenomena among judgments, while I separate them and form a distinct class; and on the other I would assert that the ideas of goodness and badness, of value and absence of value, are the general condition of this class of phenomena, while this is not at all the case, since on the contrary I shall show that all

ideas of this kind are first derived from the inner experience which we have of these phenomena. Even our ideas of truth and falsehood, nobody will doubt it, are attained only in view, and on the hypothesis of judgments. When we say that every affirmative judgment "holds something as true" and every negative judgment "holds something as false," this does not mean that, in the first case, judgment consists in a predication of the truth of what we hold as true, nor, in the second, in the predication of the falsity of what we hold as false. Our previous discussions have shown, on the contrary, that these expressions only indicate a particular mode of immanence of the object in the mind, a particular mode of the relation of consciousness to its content. The only thing that is true is this: he who holds something as true is not satisfied with affirming the object; if he is asked whether it is necessary to affirm the object, he will also admit the need of affirming the affirmation of the object, that is (since this is all that this barbaric expression indicates) the truth of the object. The expression to "hold as true" can thereby be accounted for, and the expression "to hold as false" will be explained in an analogous manner.

Similarly, the expressions which we use here in an analogous manner, "to please insofar as good", "to displease insofar as bad", do not mean that in the phenomena of this class goodness is ascribed to what is pleasing insofar as good, nor badness to that which is displeasing insofar as bad. On the contrary, they signify a particular mode of relation of psychic activity to a content. Here, too, the only thing which is true is this: if we ask some-

one, whose consciousness is related in this manner to a content, whether the object is of such a nature that we could enter into such a relation with it, he could answer only in the affirmative. This amounts to saying that the object in question is good or bad, has value or does not have value.

A phenomenon of this class is not a judgment such as: this is lovable, or that is detestable (this in effect would be to pass a judgment on goodness or badness); instead, it is an act of love or of hate.

According to the explanation already given, therefore, I repeat now without fear of being misunderstood that just as in judgments we deal with the truth or falsity of objects, in an analogous manner in the phenomena of this class we deal with their goodness or badness, their positive or negative value. It is this characteristic relation to the object which, in my opinion, is revealed by inner perception in desire and will, as well as in all that we call feeling or emotion, in a manner that is both immediate and evident.

3. In what concerns tendencies, desires and volitions, my point of view may be said to be generally admitted. On this subject let us listen to one of the most eminent and influential defenders of the fundamental distinction between feeling and volition.

Lotze, taking a stand against those who conceive willing as knowing and say that "I will" is equivalent to a confident "I shall act," puts the essence of willing in an act of approval or disapproval, therefore, in accepting something as good or rejecting it as bad. "Perhaps the mere assurance that I shall act may be equivalent to the knowledge of my volition, but then the concept of action must include the peculiar element of approval, permission

or intention that constitutes volition as such." In addition, arguing against those who wish to see in volition a certain power for action, he adds the following clarification: "Now this approval by which our will adopts as its own the resolution which is presented to it by urgent reasons of the process of imagination, or the disapproval by which it rejects this resolution, would both be conceivable even if neither one possessed the slightest power of intervening in the stream of inner phenomena to determine or modify it."<sup>1</sup> What is this approval or disapproval of which Lotze speaks? It is clear that he does not mean judging something good or bad in the sense of a practical judgment, since, as we have seen, he placed judgments in the class of imagination. Thus his doctrine reduces itself to the statement that the essence of volition consists in a particular relation of the psychic activity to an object insofar as it is good or bad.

In the same order of ideas, we could quote passages of Kant and Mendelssohn in which these two chief proponents of the threefold classification of psychic phenomena declare that the relation to the object, considered as good or bad, constitutes the fundamental characteristic of every appetite.<sup>2</sup> But we prefer to go back at once to antiquity in order to connect the testimony of ancient, with that of modern psychology.

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<sup>1</sup>Mikrokosmos, 1st ed., I, 280.

<sup>2</sup>Cf. Mendelssohn, Gesammelte Schriften, IV, 122 ff.



Aristotle speaks with such clarity on this issue that he leaves nothing to be desired. The "good" and the "desirable" are for him equivalent terms. "The object of desire ( ), he says in his treatise On the Soul, "is the good or what appears to be good." Similarly, at the beginning of his Ethics, he declares: "Every action and every choice seems to tend toward a good. Thus, the good is rightly characterized as that toward which everything tends."<sup>1</sup> Accordingly, he also identifies the determining goal with the good.<sup>2</sup> The same doctrine was held in the Middle Ages. St. Thomas Aquinas very clearly teaches that desire is related to the object insofar as it is good, just as thought is related to the object insofar as it is knowable. Thus it can happen that one and the same thing be the object of psychic activities which are absolutely heterogeneous.<sup>3</sup>

These examples show that, with respect to appetite and will, the most eminent thinkers of various periods unanimously recognize the fact of experience upon which we base ourselves in our investigation, even though they do not all attach equal importance to it.

4. Let us examine the other phenomena under discussion, especially pleasure and displeasure, which, as feelings, are generally separated from

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<sup>1</sup>De Anima, III, 10. Nich. Ethics, I, 1. Metaph., A, 7. Cf. also Rhet., I, 6.

<sup>2</sup>Metaph., A, 10 and passim.

<sup>3</sup>Summa Theol., P. I., Q. 80., A. 1 ad 2.

the will. Is it true that even here inner experience clearly reveals this particular mode of relation to the object, this act of "pleasing" insofar as good or "displeasing" insofar as bad as the fundamental property of these phenomena? Are we clearly dealing here in an analogous manner with the positive or negative value of objects, just like in judgment we are dealing with their truth or falsity? In my opinion, this seems to be no less evident in their case than in the case of desire.

One could believe, however, that I am biased and that I force the interpretation of phenomena. For this reason, I am going to appeal once more to the testimony of other psychologists.

On this point let us listen first to Lotze. "If the mind," he says, "by reason of an original property, does not only undergo modifications but also perceives them by means of images, it is equally a primordial tendency on its part not only to represent them, but also to become aware of their value in terms of pleasure and displeasure."<sup>1</sup> And he adds immediately: "In the feeling of pleasure the soul becomes conscious of the exercise of its powers as an increment in the value of its existence."<sup>2</sup> He frequently repeats the same idea and adheres to it in regard to both higher and lower feelings. According to him, the true core of sensory inclinations is only a feeling which, in pleasure and displeasure, makes known to us the value of a bodily

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<sup>1</sup>Mikrokosmos, 1st ed., I, 261.

<sup>2</sup>Ibid., 277.

state that has perhaps not yet come to consciousness. "The moral principles of each age were dictated of a value-perceiving feeling; they were always sanctioned by the soul in another manner than the truths of cognition."<sup>1</sup>

How Lotze conceives the experience of value in feeling, I do not attempt to establish with full certainty. It is without doubt, however, that he did not consider feeling itself as the knowledge of a value. This is indicated to us not only by separate statements,<sup>2</sup> but also by the fact that he has not subordinated feeling to the phenomena of the first class. In view of this, it seems that the expression is no longer justifiable except

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<sup>1</sup>Ibid., 268.

<sup>2</sup>Thus, in the passage quoted above, he opposes, as "another mode of approval," the approval by feeling to every affirmation of a truth. In addition, he says (p. 262) that "the feelings of pleasure and displeasure always signify an unknown benefit or an unknown disturbance." Acceptance, therefore, always follows it immediately. But if we ask why these feelings are always interpreted in this manner, Lotze, it seems, does not give us an entirely satisfactory answer. He does not seem to see that the idea of a pleasure without a simultaneous benefit, as we interpret it according to him, contains a contradiction. Whence would come this tendency, this invincible necessity? We can, I believe, answer this question by considering it from our viewpoint. With the same necessity with which, as a result of an affirmative or negative judgment, we ascribe truth to the object of this judgment, with the same necessity, as a result of the execution of an activity of the third fundamental class, we attribute a positive or negative value to the object of this activity. It is the same for pleasure and displeasure. Consequently, when we have a sensation accompanied by pleasure, we attribute a value to this sensation and in this sense such a process is certainly necessary. But we are led even further. When, for example, we notice that agreeable feelings are accompanied by certain bodily processes, these processes take on necessarily, by reason of their consequences, a certain value for us. It can happen then that, according to the particular laws which we shall have to establish later on for this domain of psychic phenomena, they become in the long run, without any consideration of their consequences, the

in one way, and that in the sense of our conception. It is also noteworthy that Lotze does not simply say that feeling perceives the value and lack of value, thus putting it in relation to the object insofar as it is good or bad; he also uses the same term "to approve" which he had used previously to designate "the particular element which constitutes the will as such." Inversely, elsewhere he uses the expression "participation of the heart,"<sup>1</sup> which is ordinarily applied to phenomena of pleasure and sorrow, in place of "will." How then can we not see in this transfer of terms most characteristic of one area into the other the involuntary, but insignificant proof of the essential affinity which exists in the mode of relation of the reciprocal phenomena to their objects, and hence the proof that they belong to one and the same fundamental class?

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object of our love and esteem. Indeed, it can happen that we lend them advantages which we have not the least valid reason for attributing to them. Thus, without having ever experienced that savory foods are more favorable to health, we attribute this property to them, because they taste good. Because gold is precious and useful in many ways, has not popular superstition seen in it an excellent remedy against diseases? But in our case, there are equally specific experiences which make us see a very profound relation between pleasure and organic output, and hence enable us to assume with a reasonable degree of certainty that the same thing applies to the present instance. These motifs, while not having any universal value, may nevertheless, as a general rule, be united to the motifs discussed above and act in concert with them.

<sup>1</sup>Ibid., 280.

Hamilton--for we cannot ignore this great defender of the classification of feelings into a special class--uses almost the same expressions as Lotze and calls "pleasure and pain" "an estimation of the relative value of objects."<sup>1</sup> Naturally we must leave to him the task of reconciling this statement with his doctrine of the "subjectively subjective nature of feelings." We shall only add that expressions, which clearly recognize the relation of affective phenomena to objects as good or bad, are found very frequently in this author.<sup>2</sup>

Kant finally, in his Critique of Judgment, at the very point where he claims to define the distinction between feeling and desire, speaks of both as well-being, the only difference being that in feeling this well-being is disinterested, while in desire it is practical. Examined more closely, this is equivalent to saying that in feeling we are interested only in the knowledge of an object, while in desire we are interested in the existence of an object; and even this difference would be eliminated, if it could be shown that what Kant calls feeling, in reality tends toward that knowledge and toward its object. In an earlier writing, however, Kant says very precisely: "It is only in our day that we have begun to understand that the faculty of representing truth is cognition, while the faculty of perceiving the good is feeling, and that we must not confuse them."<sup>3</sup>

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<sup>1</sup>Lec. on Metaph. I, 188.

<sup>2</sup>Ibid., II, 434 ff., and especially 436, nos 3 and 4.

<sup>3</sup>Untersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und Moral, I, 109 (published in 1863).

These testimonies, coming from the most eminent of our adversaries, have obviously an undeniable importance. But here, too, there is agreement between the statements of modern<sup>1</sup> and ancient thinkers. Our historical survey has clearly shown us how wrong Kant is when he asserts that it is only in our day that we have begun to distinguish a special faculty which is related to something as good from the faculty which is related to something as true. The old psychology, insofar and as long as it followed Aristotle, distinguished in this sense thought and desire. In desire, by an extreme extension of the term, were also included feelings of pleasure and displeasure, and generally all psychic phenomena which were not phenomena of imagination or judgment. This implied--which is extremely important for our question--the admission that the relation to objects insofar as good or bad, which we considered to be the universal and essential fundamental characteristic of

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<sup>1</sup>Among modern authors, although quite unintentionally, Herbart gives us further evidence regarding the agreement between feeling and will. When we ask psychologists about the origin of the dividing line between feeling and volition, he says, "their explanations go around in vicious circles"...Maass, in his work on Feelings (I, 39) explains feeling by means of desire ("a feeling is agreeable to the degree to which it is desired for itself"). However, in his work on the Passions (p. 2 and 7) he says that it is a known natural law to desire what is represented as good and to detest what is represented as bad. Thus the question is raised: What is good and what is bad? The only answer given to this question is that the sensitive faculty represents as good what affects it agreeably, and thereby we are led around in circles. Hoffbauer, in his Grundriss der Erfahrungsseelenlehre, begins the chapters relative to the sensitive faculty and the appetitive faculty as follows: "We are conscious of many states which we strive to produce; we say that they are pleasurable; certain ideas engender in us a striving to realize their object; this is what we call desire, etc. Feeling and desire are here given the same basis: striving." (Lehrbuch sur Psychologie, II, Sect. 1, chapt. 4, 96).

feelings, belongs no less to pleasure or displeasure than to desire and volition. The remarks of Aristotle in his Nichomachean Ethics on the relation between the concomitant pleasure and the perfection of the act, as well as some passages of his Rhetoric, have the same significance.<sup>1</sup> The Peripatetic school of the Middle Ages, especially St. Thomas Aquinas in his interesting doctrine on the relation among affective states, defends in most unequivocal terms the same opinion.<sup>2</sup>

Everyday language also reveals that pleasure and displeasure imply a relation to the object which is essentially kindred to that of the will. This is shown by the fact that expressions which are at first used with reference to pleasure and displeasure are subsequently transferred to the domain of the will. This we call pleasant that which gives us pleasure, and disagreeable that which causes displeasure; but we say as well that something is agreeable to the will or that the will consents to it. In the same way, the word "placet" in the meaning of approval was manifestly transferred from the domain of feeling to a decision of the will; no less clearly, the verb "to please" underwent the same transformation in the expressions "do what pleases you", or, "is there something which pleases you?" Even the German

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<sup>1</sup>Cf. above Book II, ch. 3, 6; Rhetoric, I, 11, especially p. 1370, 1, 16; II, 4, p. 1381, a, 6.

<sup>2</sup>Summa Theol., P. II, 1, Q 26 ff.

word Lust (pleasure) clearly means a tendency of the will when it is used interrogatively: Hast du Lust? (Do you want?). On the other hand, Unwille (indignation) can scarcely be called Wille (will), even though it is derived from this term. The same is true of the term Widerville, which has obviously become the term for a feeling: aversion, disgust.

Language does more than transfer certain terms from the phenomena of one domain to those of another. The term "love" and "hate" serve to define properly all the phenomena which make up this entire domain. It can happen that usage may be less current in one case or the other. If we use these terms, however, everyone understands what we want to say and recognizes that they do not deviate from their proper meaning. The only objection that could be made in such cases is that usage ordinarily gives preference to special terms. Nevertheless, in a very common, though not exclusive sense, the terms under discussion are indeed expressions which identify, in its universality, the mode of relation of consciousness to its object which is characteristic of our third fundamental class.

Composite expressions such as Lust und Liebe (pleasure and love), lieb und leid (pleasant and unpleasant), etc., show us the term "love" applied to the most varied feelings. Similarly, when we say "lovely" or "ugly", are we not simply speaking of a phenomenon which arouses pleasure or displeasure? On the other hand, expressions like es beliebt me (I like to), tue was dir lieb ist (do what you like), evidently refer to phenomena of the will. The expression "he has a predilection (Vorliebe) for scientific pursuits" indicates a psychic phenomenon which some people perhaps consider as a feeling,



whereas others will call it a habitual tendency of the will. I leave it to others to decide in many analogous expressions such as missliebige or unliebsam (displeasing) and lieblich (favorite, such as "favorite horse" or "favorite study"), if more reasons can be advanced to classify the phenomena implied in them in the domain of feeling or in the domain of volition. For my part, I believe that as general terms we can place them in both at the same time.

When we desire something, we love to have it; when we are afflicted by something, what afflicts us is unpleasant; when we rejoice in something, we like it to be so; when we wish to do something, we like to do it (if not in itself, at least in view of this or that consequence), etc. All these acts do not simply co-exist with an act of love, but are themselves acts of love. Thus, we see that the expressions "being good" and "deserving to be loved in some way" are synonymous, as are the expressions "being bad" and "deserving to be hated in some way." We are justified, therefore, in choosing for our third fundamental class the term "love," since, as we have already pointed out, and as it is generally done for desire and volition, we include in it its contrary.

On the basis of our discussion, we affirm that inner experience clearly reveals the unity of the fundamental class which contains feeling and will. It does so because it shows us that there is no clear-cut line of demarcation between these phenomena, and that they are distinguished from other psychological phenomena by the common characteristic of their relation to the content. All that was said on this subject by philosophers belonging to most widely divergent orientations, and even by those who distinguish two funda-

mental classes in this domain of psychic phenomena, brings out clearly this common characteristic and confirms, just as much as popular usage, the truth of our description of inner phenomena.

5. But let us pursue further the plan of our investigation. In proving that imagination and judgment were two distinct fundamental classes, we did not limit ourselves to appealing to the direct testimony of experience; on the contrary, we showed that the major difference, which undeniably exists between these phenomena, is based upon the difference of their modes of relation with the object. Apart from this difference, every judgment would coincide with an act of imagination and viceversa. Let us now examine the same question with regard to feeling and volition. If we did not recognize any difference in the mode of consciousness between a feeling of joy or sorrow and volition, would we thereby be unable to distinguish them in any way? Would every difference between them be eliminated on account of this? Evidently this is not the case.

As we have seen above, between the feeling of pleasure or pain and volition in the proper sense of the word there exists, so to say, a whole series of intermediary psychic states about which we do not know exactly whether, assuming a division of this domain into feeling and volition, it is better to classify them among the former or among the latter. Desire, hope, courage, and other phenomena belong to this class of phenomena. Surely no one will maintain that each one of these classes are of such a nature that we cannot ascribe to it any distinguishing property outside of a possible characteristic mode of relation to the object. The properties which lie at

the basis of imagination and those that lie at the basis of judgment allows us to distinguish them from one another. These differences have been upheld by both ancient and modern thinkers whenever they have attempted to define imagination and judgment and establish a line of demarcation between them. This is what Aristotle has done in his Rhetoric and his Nicomachean Ethics; others have followed this example, as for instance Cicero in the fourth book of his Tusculanae Quaestiones. Later on we run across similar attempts among the Church Fathers, such as Gregory of Nyssa, Augustine and others, and most articulately in the Middle Ages in Thomas Aquinas in his Prima Secundae. In modern times, we find them also in Descartes in his Treatise on the Passions, in Spinoza in the third part of his Ethics, probably the best part of the whole work, in Hume, Hartley, James Mill, etc., up to the present time.

In trying to delimit each class not only in relation to another class, but to all others, it goes without saying that these definitions have not always succeeded in prescinding from the opposition which permeates this domain, just as affirmation and negation permeate the domain of judgment; moreover, it was likewise necessary for them at times to take into account the differences of intensity of these phenomena. In reality, nothing else is needed; besides, the means which we have indicated are absolutely sufficient to define every class belonging to this domain. This does not mean that every attempt made with these means has actually succeeded.

In his Medical Psychology, after following the same method of definition with regard to different classes of psychic phenomena which he places among feelings, Lotze abandons this procedure with regard to the peculiar nature

of volition, being convinced that it was doomed to failure. "Any attempt to deny the existence of the will," he says, "is useless, as useless as it would be to endeavor by lengthy explanations to make clear its simple nature, which is only to be known directly through experience."<sup>1</sup> This statement is logical from his point of view,<sup>2</sup> but in my opinion does not seem to be correct. All volitions share in the common characteristic proper to our third fundamental class; accordingly, in defining what we wish as something that we like, we have already characterized in some manner, and in its most universal characteristics, the nature of voluntary activity. If we clarify the specific nature of the content, and of the image and judgment which are at the base of volition, the first statement is complete and becomes a clearly delimited definition, as does in other cases the definition of a class of feeling. Every volition tends toward an act, which we believe ourselves capable of performing, toward a good, which we expect as the consequence of volition itself. Aristotle himself examined these special characteristics, since he considered the object of a choice as a good which we can attain by action. J. Mill and A. Bain have analyzed more thoroughly the particular

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<sup>1</sup>Mikrokosmos, 1st edit., I, 280.

<sup>2</sup>It is true that Kant and Hamilton have not drawn the same conclusions. But, on the one hand, they had little success in their attempts, and on the other, when they did succeed, they simply contradicted their principle of a fundamental distinction of classes. Thus Kant, when he opposes the satisfaction of the will, as a satisfaction toward being, to the satisfaction of feelings, as a disinterested satisfaction which finds its gratification in simple imagination. (Cf. above, p. 286).

conditions of this phenomenon, given in the images and judgments which form its basis. In my opinion, although we can find here and there matter for criticism, these analyses will convince every truly attentive thinker that volition can indeed be defined in the same manner and with the same means as the other classes of feelings; and that its nature is far from being as simple as Lotze claimed.<sup>1</sup>

6. In saying that volition can be defined by adding special characteristics to the general concept of love, we do not claim at all that an individual who had never experienced this special phenomenon could fully understand it on the basis of its definition alone. This is not at all the case. In this respect, there is a big difference between the definition of the will and the definition of a particular class of judgments by specifying the content which they affirm or deny. Once we have formed an affirmative or negative judgment, we can clearly represent any other judgment as soon as we know the object to which the affirmation or negation refer. But it would not be sufficient to have loved or hated, no matter how often and with all the degrees of intensity; without a specific experience of volition, we could not represent adequately to ourselves this phenomenon in its proper nature by the simple statement of the characteristics attributed to it. If Lotze had intended to say nothing else, we would declare ourselves in complete agreement with him.

All this, however, would also apply to other special classes of phenomenon which are ordinarily subordinated to feeling; for, according to an expres-

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<sup>1</sup>We shall have to concern ourselves with this question in detail in Book V.

sion of Lotze, each one of them presents a particular nuance. No definition of hope or fear could give a full understanding of their intrinsic distinctive characteristics to an individual who would only have experienced feelings of joy or sadness. This observation applies as well to the case of different kinds of joy: the joy of a good conscience and the pleasure of agreeable warmth, the joy produced by the sight of a beautiful painting and the pleasure of eating a palatable food differ in quality as well as in quantity, so that without a specific experience the simple definition of the special object could not give us a perfectly adequate knowledge of it.

On account of these qualitative differences, we are forced to recognize that the domain of love leaves room for differences in the mode of relation of consciousness to the object. This does not mean that the unity of the same fundamental class does not embrace all the phenomena of love. As among qualitatively different colors, so among the qualitatively different phenomena of love there is an essential affinity and harmony.. This is also clearly revealed by a comparison with the domain of judgment. Even in this domain differences are to be found in the mode of relation to the object, particularly the difference between affirmation and negation. We rightly say that these phenomena are qualitatively different.<sup>1</sup> Nevertheless, since affirmation and negation resemble one another in their general characteristics,

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<sup>1</sup>It would also be necessary to mention the differences between evidence and non-evidence, logical necessity and pure assertion, etc. (Note of 1911).

the unity of the same fundamental class embraces both of them, so that their opposition, no matter how natural it may be, in no way approaches having the same fundamental importance as the opposition between imagination and judgment. The very same thing is true of the phenomena under discussion. Indeed, in a fundamental classification of psychic phenomena, the fact that qualitative differences between the special modes of love can be overlooked is possibly even more evident than the corresponding fact concerning the qualitative differences of judgments. The fundamental classes would multiply themselves endlessly especially because the subject which enters into relation with an object loved or hated becomes in its turn the object of love or hate and almost always with a changed nuance of the phenomenon itself. Besides, the narrow extension to which each of these classes would reduce itself would contradict the very plan of a primary and fundamental classification.

Hence psychologists who divide into several fundamental classes the domain set aside as homogeneous by us have not taken into account all these differences in their classification. They distinguish only two classes: feeling and volition, and overlook all the special shades of phenomena of love and hate which manifest themselves in the domain they call volition and more frequently still in the domain of feelings. By their practical attitude, most of them recognize that such secondary differences could not justify the separation into different fundamental classes. Accordingly, if our analysis is correct, we must reject in principle their distinction of feeling and will as higher classes.

7. We now come to a third series of considerations which will confirm our point of view that feeling and volition belong to the same natural fundamental class.

In establishing the fundamental difference between imagination and judgment, we showed how all the circumstances indicated that the distinction of the two phenomena comes from the basic difference of the relations of consciousness to its content. When judgment is added to imagination, we find an entirely new kind of opposition, an entirely new kind of intensity, an entirely new kind of perfection and imperfection, and an entirely new kind of laws concerning the origin and succession of phenomena. Likewise, in opposition to imagination and judgment, the totality of phenomena of love and hate has appeared to us as an equally general class distinguished by its specific properties. Consequently, if within this class there existed a further fundamental difference in the mode of relation of consciousness to its object, we would expect that also here each of the two distinct domains would manifest in a similar manner the specificity of its proper characteristics.

However, this is not at all the case.

First of all, it will be easy to convince ourselves that nowhere in the whole domain of feeling and volition there is a difference of oppositions forming pairs of phenomena as heterogeneous as the pair love-hate in comparison with the pair affirmation-negation. Even when we compare joy and sadness with willing and non-willing, we recognize that in both instances



there is the same basic opposition: to be loved or not to be loved, to please or to displease. Each of the two cases certainly presents some modifications according to the different nuances of phenomena; but the difference is no greater than that which exists between the oppositions of joy and sadness, hope and fear, courage and cowardice, desire and repulsion, etc.

The same observation must be made regarding intensity. The class as a whole is clearly characterized by a particular kind of intensity. The differences of certainty, as we have already noted, are not comparable to the differences of degrees of love and hate. It would be ridiculous to say: I find this to be twice as probable as it pleases me, or the like. Within the class itself, however, it is entirely another matter. Just like the different degrees of conviction in affirmation and negation, the differences of intensity in love and hate may be compared with one another. Just as I can say without inconvenience that I accept this with more certainty than I deny that, I can say as well that I like this more than I hate that. Moreover, it is not only the intensity of oppositions, it is also the intensity of joy, desire, will and intent which I can compare among themselves and thus qualify them as greater or smaller. The joy which a certain object gives me is greater than the desire I have for it; my desire to see someone again is less intense than the intention I have for making him aware of my disapproval, etc.

It is the same with reference to perfection and imperfection. We have seen that images imply neither virtue nor moral perversity, neither a true nor a false affirmation. The last two qualifications appear only with the phenomena of judgment, while, as we have already said, the first two belong

exclusively to the domain of love and hate. However, can it happen that they are found perhaps in one of the two classes into which this domain has been divided, i.e., in the class of volition, but not in that of feeling? We can readily see that this is not the case, that instead there are feeling which are morally good or morally evil, for example, pity, gratitude, heroism, envy, malicious joy, fear, cowardice, etc., just as volition is morally good or morally evil. By reason of this uncertain line of demarcation of which we have already spoken, I really do not know up to what point we are authorized to place any one of these examples in the domain of volition; however, if we could do it even for one, that would be sufficient for our purpose.<sup>1</sup> Nor can we maintain that virtue and vice are common to both domains, but that there would have to be added in volition a particular type of perfection or imperfection. Up to the present, so far as I know, nobody has specified the nature of such a perfection or imperfection.

Let us now come to the final point of the comparison, that is to say, to the laws which govern the succession of phenomena.

While in no way independent from the general laws of imagination, judgments involve other particular laws which cannot be derived from these general

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<sup>1</sup>It is true that we generally use the terms virtue and vice in too restricted a sense for us to be able to qualify every act of love or hate as virtuous or evil. We call virtuous only certain exceptional acts in which we truly love what deserves to be loved and hate what deserves to be hated; and we equally apply the name of vice only to certain exceptional acts which imply an opposite attitude. We shall not qualify as virtuous acts of love or hate in which it seems natural to experience a corresponding attitude. We could perhaps show how we can broaden these concepts to the point of making a perfectly general application. But it is sufficient for us here to have demonstrated that, at least, as we use them ordinarily, they do not support the usual distinction between feeling and volition.

laws. We have already observed that these laws form the main psychological foundation of logic. We have also said that it is the same with love and hate. These phenomena are not independent either from the laws of imagination or from those relative to the origin and succession of judgments; but, with regard to their succession and evolution, they also present special underivable laws which form the psychological basis of ethics.

Let us now inquire how these laws operate. Are they perhaps limited to the sole class of volition? or do some govern feelings and activities of the will, while others, set apart by a new and specific characteristic, would be applied exclusively to the phenomena of volition? Neither of these hypotheses is correct; on the contrary, acts of the will derive from joy and sadness, and inversely acts of joy and sadness derive from the will. I rejoice over, or am afflicted by a certain thing by reason of another; in the same way, I desire and want something by reason of something else, otherwise I would not long for it. The actual lack of a habitual pleasure intensifies our desire for it, and inversely a prolonged desire reinforces and increases the actual pleasure.

How is this possible?-- We say that essentially identical laws apply to the twofold domain of feelings and volition; yet, it is precisely here that there seem to exist the greatest opposition in the whole psychic domain. Surely, in contradistinction from all the other faculties, the will stands for the realm of liberty which excludes, if not every influence, at least all the constraint of the laws which apply to other domains. Does not this constitute a decisive argument in favor of the traditional distinction be-

tween feeling and will?

It is well known that freedom of the will, on which this objection is based, has always been the object of heated controversies in which we shall take part only later on.<sup>1</sup> Nevertheless, without anticipating in any way the conclusions of our future investigations, we are already in a position to refute this argument. Let us admit the actual existence in the domain of the will of this full freedom which, in each case, makes it appear possible for us to have an act of willing, non-willing, and willing the contrary. It is certain that this full freedom does not extend to the whole area of volition, but perhaps only to those instances in which either different kinds of action or at least acting or non-acting, each in its own way, are considered good. The most eminent defenders of the freedom of the will have always expressly recognized this. There is another point, however, on which they have perhaps been less categorical, but which nevertheless unmistakably reflects their convictions; I am referring to the fact that there are also free acts among psychic activities which cannot be characterized as volitional, and which are included among feelings. Thus the grief engendered by remorse for a past act, malicious delight, and many other phenomena of joy or sadness are considered acts which are as free as the resolution to change one's life and the intention to do harm to someone. Many thinkers, while reserving the terms of merit and demerit to free activity, go so far as to put the contemplative

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<sup>1</sup>Book V.

love of God above services voluntarily given to the neighbor. If, in spite of this, they speak only in general of the freedom of the will, it is because of the following reasons: ancient philosophers, as we have seen, have broadened the meaning of the term will and applied it identically to feeling and volition in the strict sense of the term; modern philosophers, instead, have often added other equivocal terms which have interfered with their investigations. Locke, for example, has never clearly distinguished between the faculty of executing or refusing an action according to whether we want or do not want it, and the possibility of wanting or not wanting it under the same circumstances. It is consequently certain on the one hand that, if freedom exists in the domain of love and hate, it does not extend only to voluntary acts, but also to certain affective manifestations, and on the other hand that not every voluntary act, any more than every affective act, can be called free. This is enough to show us that the affirmation of freedom does not widen the gap between feeling and will, and does not give any support to the traditional classification.

8. We have just covered the last part of the program which we have laid out for ourselves. In order to prove the relation between feeling and will, by and large we have followed the same procedure used previously in proving the fundamental difference between imagination and judgment. But at every step we ran into conclusions entirely opposed to one another.

Let us briefly summarize our results:

1) Inner experience has shown us that there is no clear-cut line of demarcation between feeling and will. In all psychic phenomena other than

images and judgments, we have consistently found the same type of relation of consciousness to its content; thus we can designate all of them in a univocal sense as phenomena of love and hate.

2) We have seen that, in imagination and judgment, the denial of a difference in the mode of consciousness would preclude all possibility of differentiating them. In the domain of feeling and of will, instead, the opposition between love and hate as well as their differences of intensity allow us to define each individual class according to the specific nature of the phenomena which constitute it.

3) Finally, we have seen that we do not find in feeling and volition a variation of circumstances such as those which in other instances usually accompany a difference in the mode of consciousness.

We can, therefore, consider that the unity of our third fundamental class has been completely proved. As we have done before with regard to imagination and judgment, there remains for us only to investigate the reasons which have brought about the misunderstanding of the true relation between feeling and volition.

9. In my opinion, three kinds of reasons led to this misunderstanding. Some of these reasons are psychological, others linguistic, and still others, so to say, historical, i.e., reasons stemming from previous errors committed by psychology on other questions.

Let us first consider the psychological reasons.

We have seen above how the phenomena of inner consciousness are very intimately fused with their object according to a mode which is proper to

them. Inner perception is implied in the act which it perceives; in the same way, the inner feeling which accompanies an act is a part of its object. The temptation was great to take this particular mode of relation to the object for a particular mode of intentional relation to this same object, and thus to distinguish from all the other phenomena, as a special fundamental class, the phenomena of love and hate which belong to inner consciousness.

If we recall the way in which Kant expressed the difference between feeling and desire, we can clearly see, I believe, that his doctrine is connected with the difference of which we have just spoken. In fact, he affirmed that the appetitive faculty has an "objective relation," while feeling is related "simply to the subject."<sup>1</sup>

In Hamilton, this confusion is even more striking, since he treats more extensively the separation of feeling and conation. His definitions, although difficult to reconcile among themselves, all indicate that in the class of feelings he included mainly sensory phenomena belonging to inner consciousness. His statement that feeling belongs exclusively to the present is then justified, and his definition of feelings as "subjectively-subjective" phenomena becomes at least comprehensible. Similarly, his investigation of the origin of feelings, such as we find in Vol. II, fits perfectly well into such a conception.<sup>2</sup>

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<sup>1</sup>Cf. above, p. 286, note 2.

<sup>2</sup>Lect on Metaph., II, 436 ff. Cf. also Lotze, Mikrokosmos, 1st ed., I, 261 and passim.

If the special relation of inner phenomena to their objects leads us to distinguish here two fundamental classes, how does it happen that it is not the same in the domain of cognition? Why has not inner perception been distinguished from every other type of knowledge as a separate, fundamentally different mode of consciousness? The answer to this question is easy. We have seen that it is a specific property of our third fundamental class to embrace a variety of special classes which differ among themselves more than special classes of judgments. On the whole, therefore, it was easier here than in the phenomena of cognition to misunderstand their agreement in the general nature of the relation to the object; thus, the same circumstances which did not cause any temptation in the domain of cognition, engendered an illusion in the domain of feelings.

10. Still another psychological reason may be added. We know that Kant and his successors, in order to establish the fundamental distinction of volition from feeling, asserted its underivability from the phenomena of this class. It is evident that the phenomena of the will cannot really be derived from other psychic phenomena. The reason for this, however, cannot be the fact that the particular nuance of voluntary acts can be known only by a specific experience, since the same thing is true also of other special classes of love and hate. The special nuance of hope as opposed to the joy of possession, the special nuance of intellectual pleasures as opposed to vulgar sensual pleasures, are likewise underivable. There is another circumstance which reveals best to us that volition is underivable, and which explains why we tend to conceive it as the activity of a special original faculty.



Every volition or appetite in the stricter sense of the term refers to an act. It is not simply a desire for something to happen, it is a desire for something to be produced as a consequence of the desire itself. As long as we have not acquired the knowledge or at least the expectation that certain phenomena of love or of volition involve directly or indirectly as a consequence the objects loved, all volition is impossible for us.

But how can we come to this knowledge, this expectation? We cannot draw it from the nature of the phenomena of love, be they phenomena of pleasure, displeasure, desire, fear, etc. We must then admit either that they are innate or that, like other forms of knowledge relative to relations among forces, we derive them from experience. The first hypothesis would manifestly imply the assumption of a wholly extraordinary fact which, if anything, would not allow any deduction. The second hypothesis, much more probable a-priori, clearly presupposes a special cycle of experiences as well as the existence, and the actual activity of a special kind of forces to which these experiences refer. Thus, the power which certain phenomena of love possess to realize the objects to which they refer is a preliminary condition of volition. Even if we do not consider, as Bain has done, the faculty of acting as the faculty of volition itself, it is this faculty which, in a certain way, first gives the capacity of willing. However, this power through which love and desire are manifested and actualized is completely different from the capacity for these phenomena; as such, not only does it not appear more, but indeed much less derivable from this capacity than the latter is from the faculty of cognition. Accordingly, it is natural that also the faculty of appetency and

volition appears as an absolutely underivable faculty. The reason for the impossibility of this derivation, however, does not lie in a certain characteristic proper of these phenomena which would distinguish them fundamentally from the other phenomena of love.

A more thorough examination will show us on the contrary that we have here a new proof of the kinship of the phenomena of the will with the other phenomena of love and desire. If the will presupposes the experience of the influence of phenomena of love in order to produce the object loved, it obviously presupposes also that phenomena of love, which cannot in any way be called volition, can also lead to action, even though, perhaps, to a lesser degree than the will. For if this influence were an exclusive characteristic of the will, we would be involved in a vicious circle. The will would presuppose the experience of volition and viceversa. It is otherwise, if the simple desire for certain events to occur brings about their occurrence; under these circumstances, such a desire can be repeated together with the modification brought about by the knowledge of the relation between the forces in question, i.e., it can be repeated as volition.

For the moment, these remarks are sufficient. We shall take up this question later on when we shall study in detail the problem of the origin of the will.

We have already recognized, on the basis of a previously quoted statement of Kant relative to the specific property of feeling, the connection between his classification and the fact that certain phenomena of love belong to inner consciousness; several other statements confirm the hypothesis which

we have just explained. Has not Kant defined the appetitive faculty as the "faculty which through cognition is the cause of the reality of the object of cognition?" Moreover, in the same passage in which he speaks of a relation of cognition "merely to the subject," a relation in which cognition "is considered with reference to the feeling of pleasure," he speaks also of "an objective relation in which cognition, considered at the same time as the cause of the reality of this object, is the appetitive faculty." Now, the line of demarcation which exists between these two classes, if we consider the inner phenomena of love as feelings and oppose them to all others, does not coincide at all with the line of demarcation we attain, if we distinguish the tendency toward an object, which presupposes the knowledge of the relations of the forces in question, from all the other phenomena of love. It is for this reason that we find in Kant the astonishing statement that every wish, even though impossible a-priori, as for example the wish to have wings, would already be a tendency to obtain the object desired, and would contain the knowledge of the cause of our desire.<sup>1</sup> This is a desperate attempt to harmonize the line of demarcation between the two classes, as postulated by one set of ideas, with the others. Other psychologists have preferred to broaden the class of feelings still further, extending it to the very boundary of the will properly called; still others have attributed to one or the other of the two classes more or less considerable parts of the

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<sup>1</sup> Kritik der Urteilskraft, Introduction III, note.

intermediate domain. Hence the uncertainty which we have encountered with respect to the boundary line between these classes.

11. We have said that besides psychological reasons, which lie in the specific nature of the phenomena themselves, there are linguistic reasons.

Aristotle who had correctly recognized our third fundamental class characterized it, as we have seen, by the term appetite (ὀρεξις). This term was hardly well-chosen,<sup>1</sup> for nothing is further removed from ordinary usage than to call joy a desire. In spite of this, the Middle Ages accepted, in this case as in many others, the authority of "The Philosopher" and of his translators, and characterized the faculty of all the acts belonging to this category as "facultas appetendi."<sup>2</sup> In addition, later on Wolff accepted the terminology of the Scholastics with his distinction between cognitive and appetitive faculty. In ordinary life, however, the term appetite has too narrow a meaning to be able to embrace all psychic phenomena other than those of thought. For this reason philosophers were led to believe that certain phenomena did not belong to the classes established until then and

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<sup>1</sup>Aristotle was probably led to this by a generalization and combination of θυμὸς and λογισμὸς, which appear already in Plato's classification beside επιθυμία. This seems to prove once more that we were right to state above that the fundamental classifications of Aristotle as a whole developed from the platonic classification. Apart from this, the connection here is beyond question.

<sup>2</sup>We find only isolated indications of emancipation. Thus St. Thomas employs rather frequently the term "sensus" as the most general name for this class. (Sum. Theol. P. I, Q. 37, art. 1, and passim.)

that consequently it was necessary to add a new class. A previously quoted passage from Hamilton shows us that this circumstance has not been without actual influence.<sup>1</sup>

12. We have said that the error concerning the unity of this class of psychic phenomena has been due to a third kind of reason: errors committed in previous investigations have exerted a detrimental influence on the investigation of this problem.

The error which we had particularly in mind was the reduction of imagination and judgment to a single fundamental class of phenomena. A distinction was made between the three Ideas (as they are often called emphatically) of the True, the Beautiful, and the Good which seemed coordinated with one another. It was believed that they had to correspond to three coordinated and fundamentally distinct aspects of our psychic life. The ideas of the True was attributed to the cognitive faculty and the idea of the Good to the appetitive faculty. As a result, it was gratifying to discover a third faculty, the affective, which would share in the idea of the Beautiful. Thus Mendelssohn himself, when speaking of the three faculties of the soul, refers to the True, the Beautiful, and the Good; and subsequent defenders of a similar threefold classification reproach Kant for limiting the feeling of pleasure and displeasure "exclusively to the aesthetic judgment of taste" and

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<sup>1</sup>Lect. on Metaph., II, 420; cf. above ch. 1, 4.

"of considering the appetitive faculty not as a purely psychological force, but in relation to the ideal of the Good which it should serve."<sup>1</sup>

Upon closer analysis, however, there undoubtedly arise many doubts as to the validity of the division of the True, the Good and the Beautiful into the three classes of cognitive, appetitive, and affective faculties.

We have quoted above a passage in which Lotze, who nevertheless distinguishes will and feeling as fundamental faculties, qualifies "the moral principles of each epoch" as "judgments of a value-perceiving feeling." Herbart<sup>2</sup> actually considered ethics as a particular branch of aesthetics, viewing the latter as a more general science, so that for him the ideal of the Good is completely fused with that of the Beautiful, or is at least subordinated to it as a particular state to a more comprehensive concept.

Other psychologists have made an opposite attempt. They have put the Beautiful under the concept of the Good, as for example, Saint Thomas, when he calls good that which pleases and beautiful an object whose manifestation pleases.<sup>3</sup> Here it is first of all the manifestation of the Beautiful which

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<sup>1</sup>J. B. Meyer, Kants Psychologie, p. 120.

<sup>2</sup>Basically, Adam Smith said the same thing, provided that Kant is correct in affirming that the beautiful is that which provokes a disinterested pleasure. Well before them, St. Augustine had already said: "Honestum voco intelligibilem pulchritudinem, quam spirituales nos proprie dicimus" (De divers. quest. 83, quest. 30).

<sup>3</sup>Sum. Theol. P. II, 1, Q. 27, a. 1 ad 3. "De ratione boni est quod in eo quietetur appetitus. Sed ad rationem pulchri pertinet quod in ejus aspectu seu cognitione quietetur apprehensio...Pulchrum addit supra bonum quemdam ordinem ad vim cognoscitivam; ita quod bonum dicatur id quod simpliciter complaceat appetitui; pulchrum autem dicatur id cujus ipsa apprehensio placet."

is considered as something good; but that which produces this phenomenon is also, it goes without saying, by that very fact considered as something good. In this sense, beauty undoubtedly becomes a part of goodness. But the same thing applies to truth. Consequently, all three seem to have as their common feature the characteristic of being desirable; indeed, it cannot be otherwise because we are dealing with three ideal entities.

It is necessary, therefore, to consider from a slightly different point of view the True, the Beautiful, and the Good. We shall then see that they really refer to three different aspects of our psychic life; not to knowledge, feeling and will, but to the three aspects which we have distinguished in the three fundamental classes of psychic phenomena.

Each fundamental class of psychic phenomena has a type of perfection proper to it which manifests itself in the inner feeling that accompanies, as we have seen, every act. In addition, there is a corresponding noble joy inherent in the most perfect acts of each fundamental class. The highest perfection of imagination is the contemplation of the beautiful; it is of little importance that this contemplation be sustained by the object or that it be independent of it. It is this contemplation which affords the highest enjoyment which we can find in imagination. The highest perfection of judgment lies in the knowledge of truths which reveal to us more than others a rich fullness of being. An example of this is when we grasp a law, such as the law of gravitation, which instantaneously explains a wide domain of phenomena. It is on this account that knowledge is such a joy and a good in itself, pre-

scinding from all practical advantages which we might draw from it. "By their nature, all men seek knowledge," says Aristotle, who more than many other thinkers has tasted the joys of knowing. Similarly, he states: "cognitive contemplation is the best and the sweetest."<sup>1</sup> Finally, the highest perfection of love consists in lifting ourselves up freely to higher goods, without taking into account our own pleasure and profit, in giving ourselves and sacrificing ourselves willingly to that which by reason of its perfection is more lovable than everything else, in practicing virtue or the love of good for their own sake and in the measure of their perfection. The joy, which is inherent in noble deeds and in general in noble love, corresponds to this perfection, just as the joys of knowledge and the contemplation of beauty correspond to the perfection of these other aspects of our psychic life. The Ideal of ideals consists in the unity of the True, the Beautiful, and the Good, that is, in an essence whose idea manifests infinite Beauty and in it, as in its prototype defying all comparison, all conceivable finite beauty; whose knowledge reveals infinite Truth and in it, as in its first and universal explanatory cause, all finite truths; whose love loves the infinite, universal Good and in it all that shares in a finite manner in its perfection. This, I say, is the Ideal of ideals. Accordingly, supreme happiness would consist in the threefold enjoyment of this triad: infinite Beauty would be contemplated by it; by this contemplation it would know itself as the neces-

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<sup>1</sup> Aristotle, Metaph., A. 1; A, 7.



sary and infinite Truth; it would be revealed as infinitely lovable and would be loved, with a total and necessary abandonment, under the title of infinite Good. This is also the happiness which is promised by the most perfect of religions known to humanity, Christianity. In addition, the greatest thinkers of paganism, notably the divine Plato, agree with Christianity in this hope for such a blissful happiness.

We see that even those who reject feeling as a fundamental class, but otherwise accept our fundamental classification, can well explain the True, the Beautiful, and the Good by basing themselves on the system of psychic faculties. Indeed, this ideal trinity becomes then even more fully intelligible. Even some of Kant's statements favor our thesis that only the relation of the Beautiful to cognition can guarantee the position which rightly belongs to it. I shall quote only a few passages among many others which are found in his writings. In his Critique of Judgment, Kant says: "When, in the simple reflection upon the form of an object, we judge this form as the reason for the pleasure which the knowledge of this object gives us, this pleasure is also judged as being necessarily connected with this knowledge, and consequently as a pleasure not only for the subject but for anyone who passes a judgment upon it. The object is then called beautiful and the faculty of judging by means of such a pleasure (therefore, in a universally valid manner) is called taste."<sup>1</sup> In his Metaphysical Foundations of Jurisprudence, he repeats that there is a pleasure which is not linked with any

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<sup>1</sup>Krit. d. Urteilskraft, Introd., VI.

concupiscence of the object but with the simple knowledge of it, and remarks: "The pleasure which is not necessarily linked with the concupiscence of the object, which is not then basically a pleasure we take in the existence of the object represented, but is attached solely to its knowledge, can be called simply contemplative or inactive pleasure. The feeling which refers to this kind of pleasure is called taste."<sup>1</sup>

We were right then in saying that the misinterpretation of the fundamental difference between imagination and judgment led to the hypothesis of another fundamental difference which really does not exist, and that consequently the first mistake committed in the classification of psychic phenomena contributed essentially to the development of the second. It seems as if this circumstance did not cause any concern at all.

Besides, the new error was naturally favored also by the lack of clearness over the proper principle of the classification in question. Since we have already discussed this point, we need not dwell upon it now.

Whatever may be the reasons which have led psychologists to the erroneous opinion that feeling and will are two distinct fundamental classes of

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<sup>1</sup> Metaph. Anfangsgr. der Rechtslehre, ch. 1. In the passage quoted above (p. 401, note 3), St. Thomas Aquinas who, like the peripatetic school in general, shares Kant's error of uniting in the same fundamental class imagination and judgment, also bears testimony to the relation of the beautiful to imagination. Elsewhere he writes: "Bonum proprie respicit appetitum... Pulchrum autem respicit viam cognoscitivam; pulchra enim dicuntur quae visa placent." (Sum. Theol., P. I, Q. 5, art. 4 and 1).

psychic phenomena, we believe we have listed in the preceding investigation the principal sources of this illusion. They are of such a variety and importance that we cannot be surprised if several eminent thinkers have been led astray. It will be enough, we hope, to have brought them to light to dispel all doubts concerning the theory advocated by us, which asserts that feeling and volition belong to the same class of psychic phenomena. Thus our fundamental classification seems irrefutable. We may, therefore, assert that psychic phenomena reveal neither more nor less than a threefold fundamental difference with regard to their relation to their content, or, if we prefer, with respect to their mode of consciousness. Hence they are divided into three fundamental classes: images, judgments, phenomena of love and hate.

## CHAPTER IX

### COMPARISON OF THE THREE FUNDAMENTAL CLASSES WITH THE THREEFOLD PHENOMENON OF INNER CONSCIOUSNESS.

#### DETERMINATION OF THEIR NATURAL ORDER

1. The three fundamental classes of imagination, judgment and love, which we have established, remind us of a previously discovered tripartite division of psychic phenomena. In the inner consciousness which accompanies every psychic phenomenon, we found a correlative image, a cognition, and a feeling. Each of these elements clearly corresponds to one of the three classes of psychic activity which we have established.

Thus we see that the phenomena of the three fundamental classes are most intimately interwoven. In fact, it is impossible to conceive a closer connection than that which exists between the three elements of inner consciousness.

We further recognize that the three classes possess the highest degree of universality, since there is no psychic act in which they are not present. Each class possesses a certain all-pervading presence in the entire psychic life.

As already remarked, it does not follow from this that they can be deduced from one another. In each total condition of psychic life we can recognize the presence of a faculty for each of these three classes of activity. Yet there is no contradiction in thinking that there could exist a psychic life in which one or even two of these kinds of activity, as well as the

corresponding faculty, could be missing. Similarly, a distinction exists between acts which in a relative sense are to be considered mere acts of imagination and acts in which this is not the case, insofar as the primary object of an act is sometimes simply represented, sometimes also affirmed or denied, and sometimes simultaneously loved or hated in some way. In the last instances, it is as if a musical string, which in the first instance had emitted only sympathetic vibrations, is, so to say, touched directly.

Facts, therefore, give evidence only of the universal significance of the three classes; and this evidence is certainly welcomed when we deal with the question of the fundamental nature of the class. The customary tripartite division into knowledge, feeling and will cannot be accepted in the same way. Hamilton, probably because he grasped the significance of this point, raised the claim of complete universality for the activity of the will. "In our philosophy books," he says, "one may indeed find that knowledge, feeling, and striving are treated in separate books and chapters; but in nature they are interwoven with one another. In each modification of the mind, even the simplest, one finds knowledge, feeling, and will present together to form the psychic state," etc.<sup>1</sup> However, an analysis of the concept of volition shows beyond any doubt that Hamilton's assertions regarding this third fundamental class imply an impossibility. As we have previously observed, an act of will is possible only by thinking about a particular activity. This is a situation which shows how Hamilton fails to point out

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<sup>1</sup>Lect. on Metaph., I, 188. Further on (ibid., II, 433). he comes back to this idea, but with less assurance.

the less general characteristic of this class concept, and especially how far he is from being able to find it applicable to a primitive activity.

Although our classification is obviously superior to the current one, even from this point of view, we would not attribute to this circumstance the same decisive significance given to several findings in our previous discussion.

2. The only question which remains to be answered concerns the natural order of the succession of the three classes. The preceding investigations, however, have already anticipated, and to a certain extent prepared its solution.

In our case, as in all cases, it is the relative independence simplicity and universality of the classes which determine their order.

According to this principle, imagination obviously holds first place. It is the simplest of the three phenomena, in that judgment and love always presuppose an image; it is the most independent of the three, since it is the foundation of the others; and consequently it is also the most universal. I do not state this as if to deny that judgment and love also are represented in some way in every psychic state. On the contrary, we have just now expressly emphasized this point. At the same time, we have noted a certain distinction of universality insofar as the primary object is necessarily and universally present in consciousness only according to the mode of existence which is characteristic of imagination, i.e., intentional existence. Moreover, without contradiction, we could think of a being which, without possessing the faculties of judgment and of love, would only be endowed with the faculty of imagination, but not viceversa. The laws of the process of imagi-

nation for such a fictitious being could possibly be some of the laws which even now manifest their influence in our psychic life.

For similar reasons, judgment holds second place. In fact, next to imagination, judgment is the simplest class, since it presupposes only imagination, but not the phenomena of love or hate. The idea of a being endowed with the faculties of imagination and of judgment, but deprived of any emotion of love or hate, does not imply any contradiction. Moreover, we are in a position to add to the laws governing the process of imagination, of which we spoke, a certain series of special laws of judgment which completely prescind from all the phenomena of love. The situation is different when we consider these phenomena in relation to judgment. It is certainly not necessary for a person who loves something to believe that it exists or even that it could possibly exist. Nevertheless, every act of love implies the desire for something to be. And when love begets love, when one thing is loved for the sake of another, this never occurs without the belief that there is a certain relation involved between them. In connection with the judgment of being or non-being, the probability or improbability of that which we love, the act of love is one of joy or sorrow, of hope or fear, and can assume many other forms. It seems inconceivable that a being could be endowed with the faculty of love or hate without possessing also the faculty of judgment. Likewise, it is impossible to lay down a law of succession for this type of phenomena which overlooks entirely the phenomena of judgment. As to independence, simplicity, and consequently universality, the class of love stands second to that of judgment, although so far as universality is concerned it is naturally so only in the sense in which we could speak of a difference of universality between imagination and judgment.

This analysis shows how much the true connection of psychic phenomena has been misunderstood by those who, as frequently happens today, attribute to the will first place among them. Not only is imagination an obvious prerequisite to the will, but the foregoing discussions show that in general judgment precedes love and hate, and even more the relatively later phenomena of the will. These philosophers, therefore, actually reverse the natural order of psychic phenomena.

We shall base our subsequent more detailed investigations not only upon the natural classification which we have found, but also upon the natural order of its parts. We shall first speak of the laws of imagination, then those of judgment, and finally those of love and hate. It will be impossible, however, while considering a previous class, to abstract completely from a following one, since their independence was asserted by us and could be asserted only in a limited and relative sense. The will reigns supreme not only in the external world but also in the inner domain of imagination, and feelings also influence its course. Furthermore, we know how frequently we assume a thing as true merely because it flatters our vanity or perhaps reflects our own desires. Just like the most natural division, the most natural order of its parts always implies something artificial. In opposition to Comte's hierarchy of sciences in which all theoretical disciplines are arranged in a progressive order of ascendancy, Herbert Spencer advanced his doctrine of the "consensus" of all sciences which precludes giving priority to any particular science in relation to another. Spencer's conception is perhaps too extreme; yet Comte himself conceded that his vertical arrangement was not absolute, and that an earlier science was in many ways supported and elevated by a subsequent one.



**APPENDIX of 1911**  
**TO THE CLASSIFICATION OF PSYCHIC PHENOMENA**

I. The difference between the psychic relation and the relation properly called.

The characteristic property of every psychic activity consists, as I hope to have shown, in its relation to something as object. Every psychic activity, therefore, appears to be a relation. Indeed, in his enumeration of the different fundamental classes of what he calls *xeōs tv*, Aristotle has also mentioned the psychic relation. He does not fail, however, to call attention to the difference between this class, and the other classes of relations. While in the other relations both the fundament and the term are real, in the psychic relation only the former is real.

Let us briefly clarify his opinion. When I consider something relative within the broad class of the relations of comparison, for example, something bigger or smaller, if that which is bigger exists, that which is smaller must also exist. If a house is bigger than another, the latter must also exist and have a certain size. What is true of the relations of similarity and dissimilarity applies also to the relation of cause and effect. For such a relation to exist, both the cause and the effect must exist. The cause acts only as long as the effect is acted upon. Every action is contiguous in time with its effect. Things which are contiguous in time have the same temporal boundaries, just as things which are contiguous in space have the same spatial boundaries. As long as the action continues, the cause and the effect coexist in time.

It is altogether different in the case of the psychic relation. If we think of something, the thinking subject must exist, but not necessarily the

object of our thought; indeed, if we deny something, the existence of this thing is necessarily excluded in all cases in which our denial is correct. The thinking subject is the only thing postulated by the psychic relation; the term of the so-called relation need not exist. For this reason, we could doubt whether we are really dealing here with a relation, or whether on the contrary we have at hand something which is in some respect similar to a relation and which, consequently, could be characterized as a quasi-relation (Relativliches). The similarity consists in the fact that, whether we think of a relation properly called or of a psychic activity, in a certain manner we think of two objects at the same time, one so to say in recto (directly), and the other in obliquo (indirectly). When I think of a lover of flowers, the flower-lover is the object of my thought in recto, and the flowers its object in obliquo. Similarly, when I think of someone who is bigger than Cajus, bigger is the direct object, and Cajus the indirect object of my thought.

I am aware that modern psychologists disagree with Aristotle on this point and assert that we may think that a thing is bigger or smaller than another even though the latter does not exist. Thus, for example, three would be smaller than a trillion, whether or not a trillion exists. It would seem, therefore, that the difference of which I have spoken is eliminated. This difference would actually change meaning altogether if we subscribed to the further assertion, of which several thinkers have been victims, that three would still be smaller than a trillion, even if, like the latter, it did not exist. In reality, in order for something to partake of a psychic

relation, it is essential that there exist, if not the object, at least something which is psychically related to it. But how could three be smaller than a trillion if it is not three any longer? And it is three only as long as it exists. In a similar manner, if a die is transformed into a ball, it ceases to exist, and thereby also ceases to have six square sides and to be a die. Here we are obviously dealing with an error of equivocation. By saying that three is smaller than a trillion, we do not want to affirm positively the existence of a relation; on the contrary, we simply state that, if three and a trillion exist, there must exist between them a relation of comparison; in other words, that in no instance three and a trillion can exist without this relation.

Similarly, we cannot appeal to the case in which we say that the grandson is taller than his grandfather, when the latter is no longer living. Here, too, the assertion does not mean that the grandson is taller than the grandfather. If this were the case, it would happen that when an older man is outgrown by a younger one, at the very instant at which the latter attains his stature, we could say not only that he is just as tall as the former, but also taller and smaller, which is absurd. On the contrary, as we express ourselves, we are only entitled to say that the younger man is taller than the older was and smaller than he himself will be, which simply means that if he still had his former stature or already had the stature which he will attain, the older person would not be similar to him in stature but respectively taller and smaller.

The same thing is true of the statement: "Titus is taller than Cajus thinks he is." There is no real relation of size here, although there is another kind of relation of comparison between the actual size of Titus and the size which is attributed to him in the judgment. As can easily be seen, it is this comparison which constitutes the specific nature of the psychic relation. Kant once said that one hundred real talers are not worth one single taler more than one hundred imagined talers. The truth is, that one hundred imagined talers are not only worth one taler, but actually one hundred talers less than one hundred real talers, or rather that, since they do not constitute any sum of money, they do not exist at all. Thus they cannot stand in any kind of relation with one hundred real talers, such as the relations which exists between sums of money, whether it be a relation of equality, or a relation of bigger to smaller, or smaller to bigger.

I do not want to close this discussion on the psychic relation without a brief analysis of an opinion which distinguishes between "to be" and "to exist," attributing to each of these terms a distinctly specific meaning. On the basis of this opinion, we could perhaps say that, when we relate ourselves psychically to something as object, the latter must always be in the same proper sense in which we are even though it does not always exist just as we exist.

Perhaps, none of the proponents of this opinion has gone quite so far. Nevertheless, with regard to the colors red and blue which we see, the sounds which we hear, and other sensory objects, of which science denies the existence, many of them do teach that they are, even though they do not ex-

ist. Similarly, when we think of universal concepts, they assert that the universals which are the object of our thought are as universals, although they do not exist.

I admit that I am unable to find any meaning at all for this distinction between being and existence. With regard to universals, the assumption that they are is undoubtedly just as absurd as the assumption that they exist, because it leads to contradictions. The principle of contradiction not only denies that the same thing exists and does not exist at the same time, but also that it simultaneously is and is not. What would we understand by a triangle in general existing in itself? Obviously something which possesses all the characteristics found in all triangles, but no characteristic that belongs to a given triangle, but not to another. We would have to deny that the triangle in general existing in itself is right-angled, or acute-angled, or obtuse-angled, from which it would follow that it is neither right-angled, nor acute-angled, nor obtuse-angled. But, broadly speaking, the very fact that there cannot be any triangle which does not possess one of these characteristics contradicts the nature of the triangle in general. In addition, each triangle by its very nature possesses certain specifying and individualizing differences, even though these differences vary from triangle to triangle. The triangle in general existing in itself, therefore, would also have to possess specifying and individualizing differences. But to admit this and to assert at the same time its universality and freedom from all individual differences would be one of the most flagrant contradic-

tions.-- That the distinction between being and existence, to which I cannot attribute any intelligible meaning, cannot be utilized for the psychic relation, has already been sufficiently demonstrated from the above given reference to cases in which we rightfully deny an object at the same time that we represent it.<sup>1</sup>

## II. Psychic relation with the secondary object.

Our statement that the relation to something as object constitutes the most distinctive property of psychic activity does not mean that "psychic activity" and "relation to something as object" are one and the same thing. The opposite is true. In fact, we have seen that every psychic activity is related to itself as object, though not primarily but secondarily or "incidentally" ( ἐν παρεΐεργῳ ), to use the expression of Aristotle who has noticed such a fact. The unity of each psychic activity, therefore, always comprises a plurality of relations and a plurality of objects.

As I have already emphasized in my Psychology from an Empirical Standpoint, we must not conceive as secondary object of psychic activity any one of these relations, such as the relation to the primary object, since this

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<sup>1</sup>In the preceding analysis, with regard to the term "relation," I have adhered to Aristotle's terminology, but I acknowledge willingly that this was in no way necessary. It would be foolish to engage in a verbal quarrel with anyone who might speak of relations with past or future objects, since not only that which is, but also that which was and will be, in opposition to that which never is, belongs in some way to the realm of facts.

would obviously lead to an infinite multiplication (for there should be a third relation which would have as its object the second relation, then a fourth which would have as its object the third relation, etc.). On the contrary, what constitute the secondary object is the psychic activity itself, or, to be more exact, the psychic agent which encompasses simultaneously both the primary and the secondary relation. Even though that infinite multiplication of psychic relations does not occur  $\acute{\epsilon}\nu \kappa\alpha\tau\acute{\epsilon}\epsilon\gamma\gamma\omega$ , it does not follow from this that there is only one kind of psychic relation. In fact, even though the object is the same, there can be different psychic relations, if there are several modes of relations, and this is what we find in the psychic relations  $\acute{\epsilon}\nu \kappa\alpha\tau\acute{\epsilon}\epsilon\gamma\gamma\omega$ . We have distinguished three fundamental classes of modes of relation: imagination, judgment and affectivity. It is self-evident that in the psychic relations  $\acute{\epsilon}\nu \kappa\alpha\tau\acute{\epsilon}\epsilon\gamma\gamma\omega$  the class of imagination is always present, since it is the preliminary condition of the others. Judgment likewise is always present because these relations always imply an evident act of assent. Besides, a very large number of psychologists believe that every psychic activity implies a so-called "feeling tone," which is the same as saying that every psychic activity, just as it is the object of an image and of an evident affirmative judgment, it is also the object of an inner affective relation. I myself have concurred with this opinion in my Psychology from an Empirical Standpoint. Since then, however, I have changed my mind and believe now that there are many sensations which lack this affective relation, and consequently are not in themselves either pleasant or unpleasant.



Indeed, I think that the whole broad class of visual and auditory sensations does not possess any affective characteristic, which does not exclude that they are usually accompanied by varied and very vivid affective states of pleasure and displeasure.<sup>1</sup>

The fact that psychic activity, even though primarily related to something else as object, always has itself as secondary object, is of great importance. It follows from this that every statement concerning primary objects contains several assertions. For example, the statement: "God exists," implies at the same time that I judge that God exists. And the statement: "there is no God," implies at the same time that I deny the existence of God. This must always be kept in mind in the psychological analysis of judgment. In fact, through proper and accurate methodology, we find very often that the objects of judgments and of the images which lie at their basis differ from what we ordinarily imagine them to be, and that many of them are objects of relations *ἐν σχέσει*, which combine with the primary objects in a characteristic manner to determine the meaning of judgment.

It does not seem superfluous, however, to add a few comments on what we have just said, in order to avoid possible misunderstandings and to protect ourselves from several obvious objections.

Not everything that is grasped by the mind is grasped explicitly and distinctly; on the contrary, it is often understood only implicitly and in a

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<sup>1</sup> Cf. my Untersuchungen zur Sinnespsychologie.

confused manner. I believe that I have showed<sup>1</sup> that the sounds which blend harmoniously into a chord and the color elements present in complex colors are actually always grasped, but often are not distinguished. The dispute, which is still unsettled today, concerning the simplicity or complexity of phenomenological green is connected with this fact. I even believe that I have shown that the differences of intensity of sensory objects are to be reduced to differences of phenomenological density. Perceived space is alternatively full or empty, but the parts which are full or empty are not clearly distinct. What is true of physical phenomena is true also in an analogous manner of the psychic activity which corresponds to them. Consequently, we are dealing here, and perhaps also in other instances, with psychic activities which are not perceived explicitly in all of their parts. Inner perception is rather confused, and although this imperfection is not detrimental to its evidence, it has nevertheless caused many errors; in their turn, these errors have led certain psychologists to dispute the truth of inner perceptions as a universally valid perception.

Other psychologists were led to the same erroneous opinion, because without further reflection they considered as inner perception every image and judgment related to their own psychic activity. They were wrong, for not only physical, but also psychic phenomena can become primary object, as

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<sup>1</sup>Ibid.

shown unmistakably by the knowledge which we—as well as animals—frequently have of the inner psychic life of another individual. We recognize or suppose that other people perceive, think, and will in a way that agrees or conflicts with our own way of perceiving, thinking and willing. In the same way, we frequently imagine how we would react psychologically under given conditions; and often we are even convinced that we shall really perceive and will, or that we have perceived and willed in this or that manner. In these cases, there is always an inner perception, but this perception does not bear upon the specific psychic activity under discussion, but upon another which is then actually present in us, and which is directed toward the former as its primary object.

All our recollections and hopes, which refer to our own psychic experiences, have these experiences as primary object and themselves only as secondary object or as part of it.

This fact enables me to refute a criticism that has been directed against me. Some philosophers have taken issue with my assertion that inner perception cannot become inner observation, but that to a certain extent we often observe in memory a previously perceived object. Against this assertion, they have claimed that memory is merely a weaker reproduction of the psychic act which we remember. It is easy to see that this is not the case; otherwise, he who remembers a past error would have to err again, and he who thinks with regret of a previous sinful voluntary act would be sinning anew. When I recall a previous psychic act, this act does not manifest itself as

secondary object <sup>2</sup> ἐν ἰδέεσσι , but as primary object, in the same way as when I assert the existence of images or any other kind of psychic acts in other people.

### III. Modes of imagination

The definition of imagination, judgment and affectivity as the three fundamental classes of psychic relations implies that they can be subdivided further in several ways. That this is actually so in the case of the fundamental classes of judgment and affectivity is indicated by the respective opposition between affirmation and negation, and between love and hate. Similarly, the fundamental class of imagination can be differentiated into special modes, even though the fundamental mode remains the same. Just as two judgments which have the same object differ nevertheless in nature, if one affirms what the other denies, images often differ in spite of the identity of the object.

When I wrote my Psychology from an Empirical Standpoint, I was not aware of this difference, at least not to its full extent; consequently, my doctrine not only needs to be supplemented, but also needs to be modified in many respects.

First of all, temporal differences must be considered as different modes <sup>representation</sup> of imagination. To consider the present, past and future as objective differences would imply the same error as regarding existence and non-existence as real attributes. When, in a speech or melody, we hear a sequence of sounds, or when we see a body in movement or in the process of changing color,

the same individual sound, the same colored body, individually determined as to place and quality, appears to us first as present, then more and more as past; at the same time, other things which subsequently will undergo the same modal change of <sup>representation</sup> imagination become present. If we considered these differences as objective differences, as undoubtedly spatial differences are when we represent something more to the right or more to the left in the visual field, we could not justify the essential difference existing between space and time. As far as space is concerned, we can assume without contradiction that there exist also non-spatial things: spirits without length, width and depth, and without a specific localization. Likewise, we can assume (a view which is prevalent in contemporary geometry) the existence of spatial forms of four and more dimensions, in which the fourth dimension would be added to length, width and depth in an analogous manner as in corporeal beings depth is added to width, and width to length; the same thing, obviously, would apply to any further dimension with respect to the preceding one. On the contrary, it would be quite absurd to suppose that something would exist without being present and simultaneous with everything else that exists, whether this reality had any analogy with the present, or consisted in a multi-dimensional temporal succession, with or without change. Just as a qualitative mode must be present in every judgment, and we can confidently assert that this is true of all beings which are endowed with judgment, a temporal mode is also absolutely required for every image, and this can be generally stated with reasonable assurance not only of men and animals, but

also of every being endowed with imagination. This principle possesses the same degree of certainty as the principle that there is no image without object.

Due to the extreme importance and far-reaching consequences of this point, I plan to dwell upon it more thoroughly at another time. I shall also examine then the question of whether in every being which has a certain duration, besides the continuous series of temporal modes which are necessarily included in its concept, we must admit a continuous succession of real differences which, being absolutely transcendent, would not be given in any of our intuitions.

On the contrary, I wish to mention at least in passing that we cannot conceive, by generalizing the concept of temporal modality, how something would actually appear to us if it were undetermined as to present or future, or altogether undetermined as to time. This is just as impossible as a qualitatively undetermined mode of judgment, i.e., a judgment which would neither affirm nor deny something. To be sure, such a type of judgment appears possible, but I shall not investigate here how this appearance can be explained.

There is no need to point out explicitly that the problem of the nature of time in no way coincides with the problem of the process whereby we measure temporal dimensions and intervals, be it by means of intellectual judgment, or by means of habit or by means of an originally instinctive evaluation. Although this last problem is of considerable psychological interest

and leads the investigator to teleological considerations concerning, for example, our blind faith in memory, our habitual expectations and many natural inclinations and aversions, we do not have to deal with it here. Our major concern now is with the first problem.

We have already touched upon another important point of view concerning the distinction of the modes of <sup>Representation</sup> imagination. It is the point of view according to which we distinguish between the modus rectus and the modus obliquus.

The first is always present when we exercise our faculty of <sup>representation</sup> imagination; the second, however, is present along with it every time that we think of a psychic relation, or even of a relation in the proper sense of the term. Besides the psychic agent, which I think in recto, I always think in obliquo his objects; likewise, besides the fundament of the relation, which I think in recto, I always think in obliquo its term. The modus obliquus itself, moreover, is really not simple; on the contrary, it has several different forms. It is different depending on whether we are dealing with a relation of size, or a relation of causality, or a psychic relation with the object; indeed, it is different depending on whether this psychic relation is a simple <sup>representation</sup> image or a judgment, and in the latter case, if it is an affirmative or negative judgment, etc.

#### IV. Attributive connection of imagination in recto and in obliquo.

It is common knowledge that we represent sometimes more, and sometimes less clearly objects which are not entirely simple. Whenever we represent these objects clearly to some extent, the relation which is involved in this image is multiple and, in spite of this multiplicity, clear in the Cartesian

sense of the term. This relation applies not only to the whole, but also separately to the parts which together appear to determine this whole; this is so, for example, when I distinguish a red spot as colored, red, extended, situated here, triangular, etc., and think of it as being characterized by all these properties. Each of these properties appears then to be connected with the others as a determining element. Every relation of imagination to one of these characteristics has a special object which, due to the reciprocal determination of all the characteristics, explains together with other objects the clear image that we have of the whole.

By identifying in this manner the most disparate objects, we can connect them with one another, whether or not they are mutually compatible in reality, and consequently can arrive at an objective whole which possesses attributive, but not intuitive unity. It is in this way, for example, that I can think of a round quadrangle, a white horse which is black (Schimmel), and a red which is blue. Likewise, I can represent the same characteristic identified with itself, as for example a white piece of cloth, in which case the identification leads to an equivalent of the characteristic itself. It is easy to see, moreover, that it can also happen that in our images we unite, not in an intuitive, but in a purely attributive manner, characteristics which are susceptible nevertheless of intuitive unity, as for example a certain form and a certain color.

In my Psychology, I have explained in detail that, by identifying attributively in imagination two characteristics, we do not thereby formulate a judgment which asserts one thing of another. However, as it is obvious to



anyone who recalls our theory of the secondary relation, this does not mean that there is no judgment whatsoever here. Indeed, a careful investigation would probably show that in every distinct image we make in some way a negative judgment, since we recognize that the psychic relation to one of the parts is different from the psychic relation to the other part.

It is evident that we can clarify an image through an analysis of the object both in recto and in obliquo. These free identifications, therefore, are also possible both in obliquo and in recto. Likewise, what is thought in recto can also be identified with what is thought in obliquo; thus, for example, when in recto I represent flowers and a flower-lover who desires these flowers, the flowers are represented both in recto and in obliquo and are identified with one another. When I represent a green tree, I think in recto both of the tree and the color green and identify both of them in my image. On the contrary, when, so to say, I represent a non-green tree, the process is much more complex; in fact, Aristotle at least denied that a negation can be the object of an image. If this is really impossible, which I do not doubt, we must assume that we are representing a tree of which we rightly deny that it is green, so that we are dealing here with an identification in obliquo. We shall revert to this point later on. With regard to the subject who makes a negative judgment, Leibnitz himself has pointed out that as such this subject is not something negative, and that consequently there does not exist here the same difficulty, as in the case of the color non-green, in conceiving him as the object of an image.

V. Modifications of judgments and emotions by means of the modes of imagination.

The differences of the modes of images, just as the differences of their objects, are important not only in themselves, but also for judgments and emotions which are based upon these images.

This is obviously true of the temporal modes. When I judge that there is or there has been a tree, in both cases I assert this tree, but with a different mode of judgment. The temporal mode of the image, just like the object of the image "tree," modifies not only the image, but also the judgment, by introducing into it a temporal differentiation. The same thing applies when I desire something in the present or in the future. Both acts are acts of love, but differ as to time, just as the images upon which they are based.

It is easy to see that this occurs without the mediation of a temporal judgment. The desire for something in the present or in the future includes neither the belief that the object of my desire exists or will exist, nor the opposite negation. I purposely emphasize this point because, by taking into consideration only the temporal differences in the conjugation of the verb, we might be inclined to believe that in temporal modes we are dealing with differences which, instead of being already found in imagination, arise for the first time in judgment. The verb, in fact, is that grammatical form which above all serves to complete the enunciation of judgment.

With regard to the difference between the modus rectus and the modus obliquus, it is important to keep in mind that judgments and emotions are based

only upon images in modo recto, not upon images in modo obliquo considered by themselves; indeed, the latter never exist alone, but only in the same activity together with the modus rectus. If I represent or assert the existence of someone who denies something, I myself do not deny this thing in obliquo, any more than, if I think that a cause produces an effect, I do not produce this effect myself, even though the indirect object and the particular modus obliquus by means of which my thinking is related to it are not indifferent with regard to the content of my judgment; in fact, it is on account of this consideration that my judgment is directed toward another object.

In submitting to a psychological analysis the statement: "Locke taught that there are no innate ideas," Meinong has recognized quite accurately that he who makes this statement does not assert that there are no innate ideas. However, instead of saying, as we do, that this person in recto represents to himself and acknowledges Locke denying innate ideas, but in obliquo relates himself in his imagination to the innate ideas with a double modus obliquus, Meinong thinks that we are dealing here with a fourth fundamental class of relations to an object. According to him, this class would stand midway between the relations of imagination and those of judgment, and would correspond to the traditional expression "to assume" (annehmen). It is easy to prove that he commits several errors.

The modus obliquus of imagination is different depending on whether we think of someone who affirms or denies an object, or of someone who represents it. The same thing is true when we think of someone who loves or hates this object. In neither case do we have a basis to speak of a special funda-

mental class of psychic relations; otherwise, logically speaking, we should do the very same thing when we represent a cause in recto and its effect in obliquo. On the contrary, it is obvious that we are dealing here with subspecies of the indirect mode of imagination. As we have already pointed out, these subspecies are also important for judgments which are based upon imagination with the modus rectus.

Besides, no one who knows German will grant that Meinong employs the term "to assume" in one of its usual meanings. As he uses it, we would often assume simultaneously the opposite, as for example when we say: "Locke states that Descartes is wrong when he teaches that there are innate ideas." In this case, we would assume at the same time both that Descartes is wrong when he teaches that there are innate ideas and that such ideas exist. Otherwise, it would have been necessary for Meinong to establish for this indirect relation of second order a new fundamental class, which would bear the same relation to its "to assume," as the latter does to judgment.

Sometimes, when another person makes a statement, the verb "to assume" is used as a synonym of "to recognize" and especially "to consent." Very frequently, however, this verb indicates a more complex psychic process, namely the deliberate adherence to a certain image, as if I were making a judgment in order to determine to which other judgments or practical decisions I would logically be led by following this line of thinking. Just as I can analyze an object without asserting its existence, I can likewise see clearly the consequences to which a judgment must lead by representing to myself the

person that makes this judgment, but without affirming his existence. When we proceed hypothetically, even though we do not know something, we proceed in an entirely analogous manner as if we knew it. In taking the term "to assume" in its true sense, therefore, we are not dealing with a special fundamental class, but with a complex of several psychic activities which are already specifically determined.<sup>1</sup>

VI. Impossibility of attributing intensity to every psychic relation and especially of considering the degrees of conviction and preference as differences of intensity.

When I set out to prove in my Psychology that imagination and judgment are two distinct fundamental classes of the psychic relation to the object, I referred myself to the incomparability of the degrees of intensity of these two modes of relation, following thereby the traditional opinion according to which the degrees of conviction should be conceived as differences of intensity. Subsequently, I have recognized that this opinion is false. On this point I refer the reader to my Researches on Sensory Psychology. In this work I have also shown that the degrees of preference and the degrees of decision of the will are not analogous with the degrees of intensity of a sensation, and especially that it was necessary to discard the opinion that every psychic relation implies intensity in the proper sense of the term, since we have images (such as that of the number "three" in general) which are without intensity. In contradistinction to someone who asserts

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<sup>1</sup>Cf. Marty, Zur Grundlage der Allgemeinen Grammatik und Sprachphilosophie, p. 244 ff.

something with the exclusion of any doubt, another person may believe that it is only probable. The latter does not make a judgment which is the same as the judgment of the former, differing from it only in intensity; on the contrary, he makes a judgment, indeed several judgments, contentually different from the judgment of the former, which refer only in obliquo to the direct object of this judgment. Laplace himself fully recognized this when he said that probability is composed of several types of knowledge: in the first place, the knowledge that of several cases which exclude one another one of them exist, and in the second place, the knowledge that I have no more reason to hold as real one of these cases than the others. We should not let ourselves be misled by the fact that, just as we speak of degrees of intensity of a sensation, we also speak of degrees of conviction. We also speak of different degrees with regard to the velocity of movement; yet, what we might be tempted to call intensity of the movement has no deeper analogy with the intensity of sensation than the so-called intensity of conviction. The natural scientist knows that the state of rest is just as real as any state of movement. If the center of gravity of the world, instead of being fixed, kept moving in any one direction at any greater speed, this would in no way affect the inner relationship of physical, chemical and physiological processes. It is entirely different for intensity as a characteristic of sensation. A person who hears distinctly is superior, with regard to the reality of hearing, to the person whose hearing is weak, just as he who not only hears, but also has touch, smell and taste sensations,

all other things being equal, is superior, with regard to the reality of sensation, to the one who merely hears. For this same reason, a loud sound which existed not only in the phenomenological order, but also in reality, would have a greater degree of reality than a faint sound under the same conditions.

In brief, these remarks are intended to rectify a previous error. I hardly need to add that I do not believe that on the whole the downfall of this argument weakens the demonstration which I have offered of the distinction between imagination and judgment as fundamental classes of psychic phenomena.

VII. Impossibility of uniting judgment and affectivity into one and the same fundamental class.

I have pointed out in my Psychology that, if we assign judgment and desire to two distinct fundamental classes, we should hesitate even less to recognize imagination and judgment as fundamentally distinct classes because judgment and affectivity show many similarities which are not present when we compare imagination and judgment. Thus the opposition between love and hate in affective states corresponds to the opposition between affirmation and negation in judgments; a similar opposition, however, does not exist in imagination. Besides this similarity, judgment and affective states possess other similarities which do not have a counterpart in the domain of imagination. Judgment can be right or wrong; a similar opposition between right and wrong exists in the domain of love and hate. On this point I refer the

reader to my essay on The Origin of the Knowledge of Right and Wrong in which I have also proved that, like many judgments, many affective states are characterized immediately as right. In this essay I could also have shown that the affective states which manifest themselves to us immediately as right are analogous to judgments which, as we say, are evident ex terminis. In this connection, if we are aware that a true judgment stems with necessity from an image, in other words, that at the same time that we represent something to ourselves we likewise pass a judgment upon it, then the same thing applies to affective states which are immediately characterized as right. Since we recognize an evident judgment as universally and necessarily true, we must conclude that the same thing applies in the case of such affective states. Thus, for example, we consider as true, universally and necessarily, and not only for a particular case or at least merely for human beings, the fact that, other things being equal, joy is preferable to sorrow and knowledge to error. The reader will find this idea further developed in a note by Marty in the English translation of my ethical treatise mentioned above.

Under these conditions, it is not too surprising that several psychologists, convinced by the contributions of my Psychology that judgment must be distinguished from imagination as a fundamental class, thought of uniting judgment and affective states into a single fundamental class and of considering affirmation as some kind of love, and negation as some kind of hate. Several linguistic expressions in current use might appear to confirm their



opinion; thus the word Anerkennung (recognition, affirmation) is also used in the sense of Hochsatzung (high estimation, approbation), and in the place of Leugnung or Verneinung (negation) we also use the term Verwerfung (rejection), which is also employed with reference to that which is bad and unpleasant.

It does not seem superfluous, therefore, to show briefly that judgment does not belong to the same fundamental class of affective states any more than it belongs to that of imagination.

To believe in an object and to love it are entirely different activities. The same difference exists between denying an object and hating it; otherwise, there could not be any sad news. As a defense against this thesis, it is not sufficient to point out that, since from different points of view the same thing can be judged good or bad, we can at the same time hate something while believing that we love it. In fact, if we really hate an object, this object is certainly not made more agreeable to us by the fact that it exists, since on the contrary we wish that it did not exist. Besides, we should not forget that, if there are several analogies between the domain of judgment and that of affectivity, these analogies nevertheless are not found universally. I am emphasizing here a point of particular significance to which I had to call attention for a special reason in my Origin of the Knowledge of Right and Wrong. In the domain of judgment there is a true and false. There is no middle term here, no more than between being and non-being, according to the well known principle of the third excluded. In the domain of love, on the contrary, there is not only a "good" and a "bad," but also a "better,"

a "worse," and a "less bad." This is related to the property of preference, a particular class of affective relations, which, as I have shown in my Origin of the Knowledge of Right and Wrong, does not have any parallel in the domain of judgment. By adding one good to another we obtain something better; indeed, even when added to something bad, the good forms with it a whole which we perhaps rightly prefer to a pure good by itself. Thus we are accustomed to say in theodicy that God has allowed evil in the world because, as a result of this permission, the world is on the whole more perfect than any world which were free from all evil. Similarly, we often want and choose implicitly evil, while in judgment, if we proceed correctly, we never admit a falsehood in order to increase thereby the truth of the whole.

A further remark. Among the objects that we love, we rightly distinguish those which are good in themselves and those which are good only by reason of some other object, and we call the latter "useful." There is no analogous distinction in what we rightly affirm; everything that exists, even though it has its efficient cause in something else, exists as such (and not simply with reference to its cause).

VIII. Impossibility of considering feeling and will as two distinct fundamental classes similar to imagination and judgment.

We have just seen that several modern investigators, by subsuming judgment under the class of affective relations, want to reduce to two the number of fundamental classes that we have laid down; besides, there are others who still refuse to admit that all that we call desire, preference, wish, volition, and choice can be united with the feeling of joy and sorrow

into one single fundamental class. When I singled out the gradual transition between what we call feeling and volition, these investigators adduced in opposition especially an instance in which the line of demarcation between these psychic phenomena would be very clearly drawn. Among those psychic relations which I have opposed as love to hate, they said, we find some which, although directed towards incompatible objects, are not mutually incompatible. In addition, the opposite would be true of certain other relations which I have assigned to the same class. For example, someone might like to reside at the same time in two beautiful countries, but not want to reside in both of them simultaneously. A similar contrast would exist when we represent two opposite things and compare them in different respects, while in judgment the affirmation of one of these things excludes the affirmation of the other. Volition, therefore, seems to be distinct from love, just as judgment is distinct from imagination. Volition would presuppose love, just as judgment presupposes imagination, but only in order to base itself upon it as a psychic relation belonging to another fundamental class.

Nevertheless, upon closer scrutiny, the comparison of the relationship between volition and love with that between imagination and judgment shows that we are dealing here with relationships which are essentially different. When judgment is added to imagination, there is no addition of an image to another image. On the contrary, when I choose one of two incompatible things both of which I like, a new act of love for the same object appears to be added to the love which first manifested itself in the act of liking that object.

This exclusiveness is by no means peculiar to those psychic relations to the object which we call volition and choice. The goal of volition and choice is practical. For example, no one can will that there be a certain type of weather in three days unless he believes that, like Aeolus, he has domain over the winds and weather. It can happen, however, that on the same day we like good weather for a certain reason and bad weather for another, since there is no incompatibility between the two desires, and that nevertheless we prefer one type of weather to the other.

Shall we say then that it is preference, above all that we have called affective relations, which possess this character of exclusiveness? If this were the case, it would be obvious that we are dealing here with a true relation of love, as indicated also by the ordinary term "predilection." However, it often happens that, in the presence of more than two incompatible objects, we prefer one of them to another and at the same time like it less than a third one, in which case only the latter, as we say, is "desired." In these instances, shall we consider not the merely relative, but only the absolute preference as an example of this new fundamental class? It is evident that this thesis, too, has no sound foundation.

But perhaps someone will say that we are not dealing here with the difference of our preference for one thing above another, which we also like, or our preference for this thing above all others, in opposition to our preference for it above some of them only; there are cases in which we prefer a certain action, which is judged beautiful, above all others and nevertheless, under the sway of passion, we want and do the opposite. Perhaps these cases

can best be interpreted according to Aristotle's conception that passion does not allow the higher love and higher judgment to express themselves properly, that it prevents them from developing to their full extent, since it completely dominates them. Although the quest for sensuous pleasure is not consonant with the dictates of reason, nevertheless rational deliberations come to the assistance of passion and suggest the means that will help us to secure pleasure; thus the love and pleasure which are connected with preference become mere means and lead to action, while the opposite noble preference remains without influence. If we consider this situation from this point of view, we find ourselves in the presence of a complex set of relations. The affective phenomenon is connected with images and judgments, as well as with other acts of love in which we desire something as a means, and finally with the external act. But even here we would look in vain for an element which warrants the assumption of a new fundamental class.

#### IX. True and fictitious objects.

Every psychic relation bears a reference to things.

Often the things with which we are psychically related do not exist.

We say nevertheless that they are as object. This is an improper use of the word to be which, for the sake of convenience, we allow ourselves with the same impunity as when we speak of the rising and setting of the sun. This expression simply means that a psychic agent is related to these things. It is on this basis that we are justified in asserting, for example, that "a centaur is half-man and half-horse," even though a centaur does not exist in

the strict sense of the term and consequently cannot have a body which is half human and half equine.

The property of the psychic agent to relate himself to things led some psychologists to speak of objects which would be in the psychic agent; in a similar manner, the fact that the psychic agent enters into different relations with the same thing has led them to speak of something which, to a certain extent, would be more than the object, and at the same time would be found in the psychic agent. They have called it the "content" of the psychic relation. It is especially in the case of the psychic activity of judgment that these psychologists have distinguished between object and content. Thus in a judgment such as "there is no centaur," the object would be the centaur, but the content of the judgment would be the fact that a centaur does not exist, in other words, the non-existence of a centaur. In saying that this content is in the psychic agent, these psychologists again use the term "to be" in an improper sense and say nothing else than what we would express if, using this term in its proper meaning, we stated: "a psychic agent denies in the modus praesens a centaur."

Some psychologists have proceeded even further. In view of the difference between true and false judgments, they have spoken of contents which are actual and contents which are not actual. Thus, since we rightly deny the existence of a centaur, the non-being of the centaur is an actual content of our judgment, while its to-be is not an actual content. And inversely, since it is true that there is a tree, they stated not only that a

tree is, but also that the to-be of a tree is and its non-being is not. Thus they treated contents in a manner analogous to the treatment of objects; among the latter, in fact, we distinguish between those which exist only in the improper sense of the term in the psychic agent, and those which in addition exist in the proper sense and consequently belong to the realm of real things. However, since they hesitated to state that the non-being of a centaur is an actual thing, they believed to account at the same time for this difference and the similarity mentioned above by calling contents objective.

Undoubtedly, we are dealing here with mere fictions. In saying that the non-being of a centaur exists or even in answering negatively the question: "does a centaur exist?", we want to say merely that we deny in the modus-praesens the centaur and that consequently we think that anyone who denies a centaur makes a correct judgment. In view of this, Aristotle is completely justified in saying that the assent which we give to a judgment means simply that such a judgment is true, and that truth does not exist outside the subject who judges, in other words that it exists only in an improper sense, and not properly and really. We would be led into the most disastrous complications, if we misinterpreted this Aristotelian doctrine and considered these fictions as something which exists in the proper sense of the term. There would then be, besides an apple, the to-be of an apple, the non-being of an apple, the to-be of the non-being of the non-being of an apple, and so forth to the infinite; and these infinite complications would multiply themselves infinitely.

In order to show that the non-being of a centaur exists actually and in the proper sense of the term, one could appeal to the principle that "the truth of a judgment consists in its conformity with reality," and that consequently this conformity would not be present in the negative judgment, if nothing is found in reality that corresponds to it. We would reply that such a person misinterprets the meaning of this old traditional principle. This principle, in fact, simply means that an affirmative judgment is called true if the object which, according to it, exists, existed or will exist, actually does exist, did exist, or will exist; and that a negative judgment is called true if the object which, according to it, does not exist, did not exist or will not exist, actually does not exist, did not exist or will not exist. There is positive conformity with reality, therefore, only in the case of affirmative judgments in the modus praesens; for negative judgments in the modus praesens, instead, it is sufficient that there be no disagreement, as would be the case if someone denied the existence of a centaur, while a centaur existed in the proper sense of the term.

There is no justification, therefore, for positing an analogy between contents and objects on the ground that both of them not only exist in the improper sense, but also to a certain extent exist and to another extent do not exist in the proper sense of the term.

Just as they do not exist in the proper sense of the term, contents cannot exist in exactly the same improper sense in which object exist, i.e., they cannot become objects, and inversely no object can constitute the whole of a content. It is easy to see the relationship between this principle and



our previous statements. In fact, if a content, for example the to-be or the non-being of Napoleon, could become object, it would also be necessary for it to be and not to be, and as we say of Napoleon himself, we should also say of his to-be, in the proper sense of the term, that sometimes it is and sometimes it is not, that it begins at a certain moment and ends at another. Not even those who assert the reality of contents as such claim that they are ever represented in the sense that they would constitute the object of imagination, or affirmed as an object is affirmed in judgment. Naturally I do not want to deny thereby that according to another image, which is even more common, instead of saying that we affirm a thing, we can say that we affirm that a thing is. On the contrary, we always represent only a subject who makes the judgment in question and we judge that in representing this subject we represent someone who makes a true judgment. Strictly speaking, we do not express ourselves in an entirely correct manner when we deny that the content of a judgment exists. We should rather say that we deny that there exists something which corresponds to the word "content," just as in the case of words such as "of" and "but," which by themselves alone do not have any meaning and do not indicate any reality. To say "an of does not exist," "a but does not exist," is just as meaningless as to say "a puturinulongon does not exist." It makes sense, however, to say: there does not exist anything which would be indicated by the proposition "of" or the conjunction "but."

In summary, this is what we have established:

Just like the centaur itself, the to-be or the non-being of the centaur cannot become objects; only the subject who affirms or denies the centaur can

become object, in which case the centaur likewise becomes at the same time object according to a special modus obliquus. Consequently, only the things which fall under the concept of reality can become objects of psychic relations. Neither the present, the future and the past, nor that which is present, past or future; neither existence or non-existence, nor that which exists or does not exist; neither necessity or non-necessity, possibility and impossibility, nor that which is necessary or non-necessary, possible or impossible; neither truth and falsity, nor that which is true or false; neither goodness or badness, nor what Aristotle calls actuality ( ἐνέργεια, ἐντελέχεια ) or form ( εἶδος, λόγος, μορφή ) and which is expressed in language by abstract terms such as redness, form, nature of man, etc.; nor objects as objects, such as that which is affirmed, denied, loved, hated, represented, none of these things can ever, like reality, become the object of our psychic relations.

To prove this in detail would lead us too far from our present discussion. For this reason, we shall limit ourselves to the following general statement: a careful analysis of a case which might suggest the opposite will show that the object of judgment is always a thing, either in recto or in obliquo; furthermore, such an analysis will show that, for every proposition which seems to have as subject or predicate anyone of the elements mentioned above, we can formulate an equivalent proposition in which the subject and the predicate are replaced by a real thing. Leibnitz himself has recognized this, especially with regard to the so-called nomina abstracta. In his New Essays

(Book II, ch. XXIII, 1), he gives a translation of these terms similar to our own which eliminates the need for a whole series of subtle and abstruse explanations that have created confusion in metaphysics and logic.

In many cases, the fiction that we have as object something different from reality, i.e., not only that which exists but also that which does not exist, in no way hinders logical operations; indeed, such a fiction can facilitate these operations by simplifying them not only in verbal expression, but also in the thought process itself, just as mathematics utilizes to good advantage the fictions of negative numbers and many other fictions. This method makes it possible to treat images and judgments which are very complex, as if they were simple, and in certain cases spares us the useless effort to achieve a more precise clarification of a psychic process which is not clearly grasped.

It is for this reason that, from the most ancient times, traditional logic has often considered as homogeneous and simple certain judgments which actually are not. This logic, for example, considered the four classes of categorical propositions designated by the letter A, E, I, O as classes of simple, homogeneous and direct judgments, while in reality many of them, indeed to a certain extent all, are complex and include especially judgments of inner consciousness.

I do not want to bypass this opportunity to dwell a little bit upon the psychological analysis of these judgments. If we compare the complications stemming from them with the simplicity of the process to which we are led by

the use of certain obvious fictions, we can easily appreciate the merit of the latter.

Of the four categorical formulas mentioned above, the formula I is the easiest to analyze. "S is P" is equivalent to an existential proposition which affirms in the modus praesens the whole to which I arrive when I represent S identified with P. If the proposition I, as logic supposes, expressed a simple judgment, it would be absolutely identical with the judgment expressed in this existential proposition. Upon closer scrutiny, however, the proposition I denotes a double judgment: on the one hand it affirms the subject, and on the other, following the identification of the predicate with the subject in imagination, it affirms with this added characteristic the subject previously affirmed in itself, i.e., it attributes to it the predicate P.

We find the same thing in the formula O. Using a very inaccurate expression, the logicians call it a negative particular proposition; if we considered such an expression accurate, we would assert something absolutely impossible. A purely negative judgment, in fact, must always deny universally, just as inversely, in the case of universal concepts, an affirmative judgment must always affirm particularly. Just as the proposition "there does not exist any tree" denies universally, while the proposition "there exists a tree" affirms particularly, the same rule applies without exception to the propositions "there does not exist an A" and "there exists an A." It is only in the case in which a S identified with P has been restricted

previously by a qualifying clause, that we can, considering negatively the connection of a S with a P, deny them in another manner than according to the whole extension of S. This restriction, however, occurs in the formula O only because, when closely inspected, like the formula I, it expresses a double judgment. One of these judgments consists, as in the formula I, in the affirmation of the subject S; this is the fundamental part of the double judgment with which subsequently the second part becomes related, and which it presupposes in such a way as to be inseparable from it. This second part is negative: in contradistinction from the second part in the formula I, instead of attributing a characteristic to the subject affirmed by the first part of the double judgment, it denies such a characteristic. The second part does not deny merely the connection of P with S, but instead the connection of P with a S which I affirm and particularize by means of this affirmation itself, since every affirmation is particular. What is denied is not the relation of a subject, pure and simple, but of a subject restricted in its extension. Thus, due to the particular nature of the fundamental affirmative part of the double judgment O, the negative part which is based upon it appears particular, without really being so. If we prefer, we may also say that the second part of the judgment is truly particular; however, this is only because it is not purely negative, but instead implies an affirmation.

We have found that in the formula I the double judgment "S is P" is equivalent to the simple existential proposition "there exists a SP," i.e., "an S which is P." According to what we have said, however, we cannot re-

duce the formula O to the existential formula "there does not exist a SP"; in this case, in fact, it is not only all affirmation which is lacking, but also that restrictive element which explains the apparently particular nature of the negative judgment.

I cannot omit calling attention to a linguistic characteristic of the formula I and O, as they are commonly enunciated. Usually, the logicians do not say merely that "a S is P," "a S is not P," but instead say: "some S is P," "some S is not P." Properly speaking, the term "some" can be used only when we are dealing with a plurality. It is not possible to say indifferently "there exists some God" or "there exists a God."

The usual enunciation of the formula A and E calls for a similar remark. The logicians say: "all S are P" or "every S is P," using the plural directly in the first case, and in the second case a singular which refers to the plurality to which the singular belongs. The relation to the plural is somewhat less evident when the formula E is expressed in the proposition "no S is P." Even here, however, it is easy to understand the term "no" in the sense of "none of all."

In actual practice, these formulas are used in a much more universal manner. Thus the logicians give as examples of these propositions such as "Cajus is a man," "no absolutely perfect being is unjust," even though in both cases we are dealing with subjects that cannot have a plural. Likewise, I can also say: "every round square must be simultaneously round and square," even though there can never be a round square, let alone a plurality of round squares.

As they are now used, these formulas obviously refer to a plurality only in their enunciation and not according to their meaning. It is for this reason that I have not taken this fact into consideration in the analysis of the formulas I and O given above. Likewise, I will not take it into consideration in the following investigation of the formula A and I. If I did this, I would have to broaden fictitiously the concept of number in such a way as to include in it also "one" and "zero." It is self-evident, in fact, that in this case every subject becomes a collective term. For this very reason, however, we would not gain anything by bringing this characteristic to the fore and saying, for example, that "in the total number of S there is a unity which is P," instead of saying that "a S is P"; and that "in the totality of S a S is not P," instead of saying that "a S is not P." In the other two formulas, likewise, we hardly refer ourselves to a collective term. Indeed, it makes no difference whatsoever to say that something does not exist or that it is not found in the totality of things. It is clear, moreover, that those who say that a totality is something, for example, that it is green, but include among the totalities "one" and "zero," do not predicate something of a collective term either collectively or, according to the opinion of logicians, distributively; in fact, in the case in which the totality is zero, we do not find in it any unities to which the predicate "green" could be attributed in its entirety. Let us get rid of this ballast, since it would take many psychological analyses in order to become fully aware of its import. These analyses would lead us very often to represent a

subject who makes a negative judgment, but would not protect us in the long run against the recent error according to which the terms "number," "totality" etc., are concepts which are not derived from any intuition, either external or internal. This remark is prompted by our desire to prevent an objection which otherwise could easily be made against both the preceding, and especially the following part of our analysis of the four categorical formulas.

Having investigated the formulas I and O, we turn now to the formula E.

Just as the formula I has appeared to us as the equivalent of the existential proposition "there exists a SP" (i.e., a S which is P), the proposition "no S is P" appears clearly as an equivalent of the existential formula "there does not exist a SP."

I say: "as an equivalent," and thereby indicate that from a psychological point of view these propositions are not entirely the same. Let us clarify this point by means of a more detailed analysis. He who says that "no S is P" represents to himself someone who judges that "a S is P," and declares that, by thus representing him in his judgment, he represents someone who makes a false judgment, i.e., someone whose statement contradicts his own judgment. We have seen, however, that he who states that "a S is P" makes a double judgment, the first part of which affirms S and the second attributes to S, which has been affirmed in the first, the characteristic P as predicate. It follows from this that his opponent considers as false at least one of the two judgments, but in any case the second, since this implies the first partial judgment and consequently cannot be true if the first is false. It is for this reason that the equivalence of the existential judg-



ment which rejects the union of both characteristics is absolutely evident.

The relation between the formula A and the formula O is analogous to the relation between the formula E and the formula I. Since the meaning of the formula O consists in the double judgment "there is a S and this S is not P," the proposition "every S is P" means that he who makes both judgments is wrong. I represent someone who affirms a S and denies P to it, and declare that, when I represent him making such a judgment, I represent someone who makes a false judgment, i.e., someone who asserts something which is contradictory to my own judgment. Thus, as a result of the point of view which I have adopted, I believe that there cannot be absolutely anyone who is right in denying P of S.

These are the somewhat complicated results of a psychological analysis of the four logical formulas of categorical propositions which logicians designate as A, E, I, O, by reducing them to their most essential elements. Let us see now by what highly simple artifices they can simplify the operations which tend to become more difficult because of these complications.

It is sufficient for logicians to imagine that negative entities can also become objects. As many others, this fiction is common among laymen; in fact, they speak of people who are intelligent as well as of people who are unintelligent, of something that is living as well as of something that is lifeless. "Beautiful" and "non-beautiful," "red" and "non-red" are equally considered by them as names, i.e., words which denote an object. Aristotle himself, even though fully cognizant that a negative term cannot become object,

in his De Interpretatione, adds to the  $\acute{\alpha}\nu\omicron\mu\alpha$ , i.e., to the word which denotes something, the  $\acute{\alpha}\nu\omicron\mu\alpha \lambda\omicron\epsilon\iota\sigma\tau\acute{\omicron}\nu$ , which is said to include nothing else than negative expressions such as "non-white," "non-man," etc. The expression "negative judgment," used by Kant in his Critique of Pure Reason, to denote a third class of judgments, along with affirmative and negative judgments, appears to be historically connected with this Aristotelian expression.

Logic has long made many uses of this expression; moreover, as I have pointed out in my Psychology and, following my footsteps, as Hillenbrand has shown in his work on categorical syllogisms, it could even have utilized it with a greater degree of ingenuity. Consequently, just as we have reduced the categorical proposition "a S is P" to the existential proposition "there is a SP" or "there is a S which is P," we can reduce the categorical proposition "some S is not P" to the existential proposition "there is a S non-P," i.e., "there is a S which is not P"; furthermore, just as we have reduced the categorical proposition "no S is P" to the existential proposition "there does not exist a SP," we can reduce the categorical proposition "all S are P" to the existential proposition "there does not exist a S non-P." In my Psychology I have formulated three simple syllogistic rules which, if followed, make unnecessary the whole complicated system of figures and modes developed by the theory of the categorical syllogism since Aristotle, even though they are not sufficient to protect us against error in all cases. At the same time, this procedure shows very clearly the important truth that the whole

syllogistics consists in nothing else than a continuous application of the principle of contradiction; a truth, nevertheless, about which Alexander Bain was so mistaken as to think that we did not have any other guarantee of the accuracy of syllogistic rules except their unfailing confirmation through praxis.

A similar procedure simplifies also the theory of hypothetical and disjunctive syllogisms and makes it possible to reduce their propositions to existential propositions. It is sufficient for me to imagine that even the contents of judgments can become objects to which we refer ourselves in affirming or denying them, both in themselves alone, as well as by identifying them with, or otherwise relating them to other objects. Thus, for example, the proposition "if all A are B, some C is not D" can be reduced to the existential proposition "the non-being of A-non-B does not exist without the existence of C-non-D." If we add to this the proposition "the non-being of A-non-B exists," it follows according to the modus ponens that "C non-D exists"; or, if we add the proposition "the being of C non-D does not exist," it follows according to the modus tollens that "the non-being of A non-B does not exist." If we replace the terms "non-being of A-non-B" by the letter  $\alpha$ , and the term "being of C-non-D" by  $\beta$ , the syllogisms appear in this simple form:

"There is no  $\alpha$  without  $\beta$ .

But  $\alpha$  is

Therefore, also  $\beta$  is".

"There is no  $\alpha$  without  $\beta$

But  $\beta$  is not

Therefore, also  $\alpha$  is not."

To be sure, the application of this artifice is of lesser importance here to the degree that the doctrine of conditional and disjunctive syllogisms presents less complication than the doctrine of so-called categorical syllogisms. This could also be the reason why Aristotle, who was acquainted with the former just as well as we are, overlooked it entirely in his Analytica Priora.

To prevent any misunderstanding, I expressly point out that here, as well as in my Psychology, I have not dwelt upon all the problems related to the categorical syllogism. Thus, for the sake of brevity, I have not even considered the complications involved in the consideration of the temporal mode as well as of the apodictical character of this type of syllogism, in order to show the easiest way to meet the special difficulties and dangers which stem from them.

The fact that such fictions are common in logic has led several psychologists to believe that this science has for its object not only things but also non-things, and that consequently its object is more universal than that of reality. This opinion is completely false; indeed, on the basis of what we have said, it is impossible, because there cannot be any other objects except real objects, and because the unitary concept of reality, being in all respects the most universal concept, includes in itself everything which is truly an object. Likewise, the terms of everyday language in most cases

are names only grammatically and not from a psychological point of view. They do not denote things. Nevertheless, it does not remain less true that the discourse in which they are combined deals only with things. The object of logic, on the contrary, is much narrower than the concept of thing. Logic is a technical discipline, and its aim is to enable us to attain knowledge through proof and investigation. It is an art of judgment. It is only to the degree to which, in judgment, we have as objects all kinds of things, that the latter, so to say, come into indirect consideration, while the direct object of logic is knowledge (or, to use a more exact expression, the knowing subject).

I. Attempts to mathematize logic.

Others besides myself have felt the need to reform elementary logic. Several thinkers in particular have attempted to give logic a completely mathematical character in the hope of providing all logical proofs with the clarity of mathematical demonstrations. The universality which is characteristic of all negative judgments as such was conceived by them, in the categorical proposition, as a quantification of the concept of the subject; as a result, they came to the conclusion that it would be better if, like the subject, also the predicate were quantified. This view has not been entirely foreign to antiquity, since Aristotle takes it into consideration; however, he does so only polemically, stating pertinently that those who, instead of adding the words "all" or "every" only to the subject, repeat them before the predicate, usually arrive to false assertions, for not even propositions such as "all men are all men" and "every man is every man" could ever be ad-

mitted as true. To such a little degree all men are all men that, on the contrary, no man is all men. Likewise, no man is every man; for, if only one man, for example, Cajus, were every man, it would follow that Cajus would not only be Cajus, but also Sempronius and Tullius, etc. There is here a complete misunderstanding of the structure of language.

Recently, in his exposition of the Philosophy of Theophrastus, Gompers has pointed out that this philosopher has anticipated the modern theory of the quantification of the predicate. A close analysis of the passage, however, shows that the opposite is true. Just as Aristotle had done before him, Theophrastus touches upon this view only in order to refute it.

It is on account of a similar misunderstanding that others have thought that every categorical judgment expresses a relation of equality between subject and predicate. Thus Lotze seems to have been led to the peculiar theory that, when we say that "a tree is green," we tacitly understand by "tree" a green tree, and by "green" not simply green in itself alone, but a green identical with a tree. Thus we would have the equation: "A green tree = a green tree." But of what value would categorical propositions be if all of them consisted of equations in which the same reality would be considered equal to itself? If all mathematical equations asserted nothing else than  $2 = 2$  and  $10 = 10$ , etc., they would be of little value to the advancement of this science. If the proposition "a tree is green" is actually changed into the proposition "a green tree is a green tree" without any essential modification, it is easy to see that the predicate "a green tree" can be omitted without any detriment. Thus, in unison with our theory, one arrives at the conclusion that the simple existential proposition "there exists a green tree" is equivalent to the pro-

position "a tree is green." We would fare less well if we wanted to consider a proposition such as "all men are good" as equivalent to the proposition "all good men are good men." In fact, the latter is self-evident, while the former contradicts experience.

Consequently, even though in general I deeply sympathize with those who try to clarify the principles of elementary logic and to facilitate its operations, I cannot approve their attempts to mathematize logic, and take the necessary precautions against the possibility that these attempts be confused with my own attempt to reduce categorical propositions to existential propositions. We have spoken above of those who want to give an exaggerated universality to the object of logic; we must say that those who think that all judgments with which logic concerns itself are merely a matter of equations and other quantitative relations commit the opposite mistake. They restrict too much the object of logic, trying to reduce it to a part of mathematics, while on the contrary the whole field of mathematics seems to me a part of logic, a part which teaches us the best way to treat methodologically certain problems of knowledge (especially those related to quantitative measurements).

Although some modern reformers of logic do not quantify the predicate, they do not overcome entirely the error of a narrow mathematization of logical operations by quantifying at least the subject. I believe I have shown that this quantification is in no way necessary in order to recognize the existence of universal and particular judgments. While in this respect I cannot agree with these authors, I have no objection at all against the

use of letters as general signs for ideas and complexes of ideas, as well as for judgments and complexes of judgments, after the fashion of algebra, or against the use of other signs analogous to + and -, =, >, < etc., to indicate logical operations and relations. Nevertheless, I consider their position precarious when they employ in a different meaning signs and expressions which are already used by mathematicians; when, for example, they define a green tree as a multiplication of "green" and "tree," or when they consider a line at the third power, not as a cube, but as something identical with the line itself, because "a twice linearized line" is identical with "a line" and consequently, according to this new terminology, would be merely a repeated multiplication of the line with itself. Since the safeguard against equivocation is one of the most essential goals in logic, we should take care not to create new equivocations like those under discussion. What seems to have given occasion to these equivocations is simply the absolutely fortuitous circumstance that algebra, in its own language, merely places the adjective and the corresponding noun one after the other.

These equivocations could become especially detrimental if, as demanded by the universality of logic, one attempted to treat also mathematical problems according to this new method. Actually, such an attempt has already been made. However, if we think that the only motive in this connection was the desire to extend the clarity of mathematical operations to argumentation in other scientific fields, the attempt to reform the method itself of mathematical operations must indeed appear very strange. I do not expect any true



advantage from it; indeed, I am convinced of the opposite. When I hear the partisans of this new logic prophesizing in their enthusiasm that their theory will thereby assure science an incomparably faster progress, I recall the high hopes that Raymond Lully had for his Ars Magna, which nevertheless has remained completely barren. Similarly, even now we do not find that any of the important recent discoveries is to be attributed to the application of the new and, in many respects, very peculiar algorithm.

The following analysis offers further evidence that this mathematically oriented logic has not taken sufficient care of the certainty of logical operations, which is much more important than their abbreviation and simplification. To be sure, this logic criticizes the old logic and reproaches it, just as I do, for its incompleteness; as far as I can understand, however, nowhere does it call attention to the many errors and contradictions in the rules of traditional logic which I have emphasized in my attempt of reform. It does not point out, for example, that it is false to say that the affirmation "all S are P" implies the affirmation "every S is P." We have seen that the total number can also be one and zero; in the latter case, even though it is still true that all S are P, it is not true any longer that there is a unity of SP, since on the contrary there is no SP. Hence the falsity of the rule that the truth of "all S are P" is incompatible with the truth of "no S is P," as well as of the rule that at least one of the two propositions "some S is P" and "some S is not P" is true.

On this point, ancient logic can in no way be defended. If we wanted to defend it by saying that it merely supposes the existence of the subject in all categorical propositions and thus considers them as purely hypothetical judgments, even granting this premise, we would not thereby spare for it the reproach of self-contradiction. If we assume that two assertions are valid only under certain conditions, we cannot say any longer that they could not be true at the same time. On the contrary, from the truth of one of them we can derive, by means of a dilemma, the falsity of the hypothesis. Thus, for example, from the truth of the two propositions "all S are P" and "no S is P," if both envisage hypothetically the case of the existence of S, it follows that this hypothesis is false, i.e., that there is no S. If instead we stated that we should not think that categorical judgments are restricted by an implicit hypothesis concerning the existence of the subject, but that they imply absolutely the existence of this subject, we eliminate the difficulty. In fact, if both the formula A and the formula O include the assertion that S exists, they can and must be simultaneously false, as soon as S does not exist. Consequently, they are no longer contradictory.

Only the reform of logic which I have attempted brings out clearly these and other errors found in the most elementary rules of logic, including four of the categorical modes used in syllogistics. This is due to my vigorous effort to establish the following propositions: anyone who denies a universal denies it according to the whole extension of its concept, and anyone who affirms it affirms it particularly; inversely, anyone who affirms something which entails

the distinction of several characteristics affirms it according to its whole content, but no one who denies it denies also each part, i.e., each single characteristic which is contained in it. We can say, therefore, that when the concept is not entirely simple the negative judgment never applies to its whole content, just as when the concept is not completely individual the affirmative judgment never applies to its whole extension.

The new mathematically oriented logic has invented a new language. It seems to me that there is less merit in conversing with us in a new language than in teaching us to reason correctly in an idiom which is common to all peoples. Man will never cease to connect the signs of this language with the course of thought. What matters first of all is to exclude the dangers stemming from this language; and this can be done by making intelligible the functions of each part of speech; for in this way, even though we cannot remove the frequent equivocations which are found in an analogous manner in all languages, and as such undoubtedly serve some purpose, we can nevertheless make them harmless. Neither Descartes, Spinoza or Leibnitz, nor Kant have noticed that the proposition "A is A," when it is used to express an a-priori evident judgment, is not affirmative. Otherwise, the former would have avoided falling into the paralogism of the ontological argument for the existence of God; and Kant would not have been led to the false definition of the analytical judgment, according to which an affirmative judgment is said to be analytical if its predicate is contained in the concept of the subject.— an error which lies at the basis of many others in his Critique of Pure Reason among which the fateful illusion that purely analytical judgments do not en-

large the scope of knowledge. This error is still shared at the present time by many philosophers, even though Aristotle has refuted it in advance and Kant himself once, without being aware of it, has denounced it in a striking manner. According to him, logic must be purely analytical, but nevertheless is a true science, and consequently must also be an enrichment of our knowledge. Albert Lange, the great admirer of Kant, pointed out this contradiction and, in order to eliminate it, thought that even logic should be based upon a-priori synthetical knowledges. However, since the latter admittedly have only a phenomenological value, Lange asserted that the intuition of space was the essential foundation of all logical operation. According to him, geometrical figures of inner, external and secant circles, which several treatises of logic add to the description of categorical syllogisms, are not a mere accessory, but constitute the core itself of the argumentation.

Could we, then, really believe, in opposition to what Cicero once said, that there exist in the proper sense of the term round or square concepts of virtue, justice, and other universals? Certainly not. To consider these concepts spatially extended would only be a metaphor. However, while this paraphrase undoubtedly went beyond the domain of spatial intuition, it would no longer allow the application of a-priori synthetical knowledges, since such an application is dependent upon it as a necessary conclusion.

## XI. Psychologism.

My theory of knowledge has been accused of psychologism, a neologism

in the presence of which many pious philosophers make the sign of the cross, just as many orthodox Catholics do when someone pronounces the word modernism, as if the devil himself were hidden in these terms.

Since this term of approbrium is frequently used in connection with very different questions, I must ask first of all its exact meaning, in order to defend myself against such a serious accusation. When in the course of a friendly conversation I sought an explanation from Husserl, and subsequently on occasion also from others who always have on their lips this term invented by him, I was told that psychologism is a theory which rejects the universality of knowledge: a theory according to which beings other than man could have ideas which are diametrically opposed to ours.

In this sense, not only I am not an advocate of psychologism but I have always rejected and opposed in the most clear-cut fashion this absurd subjectivism.

My critics reply that nevertheless I advocate this view and reject the universal unity of truth, since truth implies a correspondence between true judgment and something outside our mind which is identical for all judging subjects. In negative judgments, however, and in judgments which designate something as possible, impossible, past or future, this reality cannot be a thing. Hence, my opponents argue, since I reject the reality of certain non-things, such as non-being, possibility, impossibility, past, future, etc., I thereby reject the universal unity of knowledge.

My answer to this criticism is that, even if this negation implied the rejection of the universal value of knowledge, I could not be accused of advocating psychologism, since I do not myself draw such a consequence. My opponents would only have the right to say that I lay down certain propositions which in their consequences must necessarily lead to psychologism.

Nevertheless, not even this is true. In fact, why should it not be evident even without the hypothesis of such non-things that two judgments, one of which affirms in a certain way what the other denies in the same way, are just as incompatible when they are made by two different persons as when they are made by the same person? Indeed, no one will assert that, even if such non-things existed, we should first perceive and compare them with our own judgments in order to be in a position to affirm through their agreement and disagreement the truth or falsity of our judgments. On the contrary, the immediately evident perceptions of things and the immediately evident negations of the relations through which these things are expressed in imagination will always be the last support in the critique of our own thoughts as well as of the thoughts of other people.

I am writing this in rebuttal of a defamatory remark which I can hardly believe has actually ever come from the mouth of any one of my personal pupils. Otherwise, to avoid a harsher reproach, I would have to consider such gossip as a sign of extremely weak memory.<sup>1</sup>

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<sup>1</sup>Even today we find several psychologists who, due to a misunderstanding of the nature of evidence, mistake logical validity for the genetic necessity of a thought, both in each individual and in the human race as a whole. I at least, both in my lectures and in my writings, have always distinguished in

But this is not enough. There remains a third hypothesis, we know human nature; we know that, without being aware of it, we change the meaning of concepts, and that on account of the resulting equivocations we do not know any longer what we say. Perhaps those who accuse me of advocating psychologism are making a similar mistake. In reality, we should tax with psychologism not only the subjectivist, but also anyone who believes that psychology has its own say in the theory of knowledge and in logic. But while on the one hand I strongly condemn subjectivism, on the other I also strongly resist being induced by this to misunderstand this truth. On the contrary, I consider this truth so well established that, in my opinion, it would be paradoxical, indeed absurd, to deny that knowledge is a judgment and that judgment belongs to the psychic domain. It follows that, if beings other than us partake of knowledge, they must likewise partake of the knowledge which falls within the human-psychic domain, and which alone is directly accessible to our investigations.

## XII. Miklosich's subjectless propositions.

### I

"Subjectlose Sätze" (Subjectless Propositions) is the title given by this famous philologist to a little work which, in the first edition he had

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the most explicit terms between legitimacy in the sense of natural necessity and in the sense of logical correctness of a proof. Indeed, no one before me or after me (including Husserl) has affirmed this distinction more clearly and more forcefully than I have done.

entitled "Die Verba Impersonalia in Slavischen."

It is possible that the change of the title is connected with important additions in the second edition. The new title, however, would have been more appropriate even in the first edition. In fact, far from having in view merely the nature of one family of languages, the author formulated a theory of the most far-reaching significance, which, for the very reason that it contradicted the dominant views, would have deserved even more general attention. Not only philology, but also psychology and metaphysics had an interest in this problem. In addition, the new theory promised to be beneficial not only to the investigator in these lofty spheres, but also to every child in the classroom who at the present time is tortured by his schoolmaster with impossible and incomprehensible theories (Gf. p. 23 f.).

This treatise has not exerted such an influence. Even today the old views remain unchallenged. If the publication of this monograph in the new edition bears witness to a certain interest in the matter on the part of wider professional circles, this is obviously not to be attributed to the fact that the readers believed to have found in it the clarification of old doubts and errors. Quite apart from the truth of his hypothesis, Darwin's epoch-making work had an indisputable value even for his opponents; everybody had to recognize with admiration the richness of his important observations and his ingenious syntheses of phenomena. Similarly, even those who have refused to subscribe to Miklosich's main thesis may nevertheless feel very much indebted to him in many respects, since his little treatise con-



denses a wealth of knowledge and contains the most subtle observations.

Here we want to direct our attention to the main problem and clarify briefly the nature of the issue under discussion.

Logic has long asserted that judgment consists essentially in uniting or separating, in relating ideas to one another. Accepted almost unanimously for two thousand years, this assertion has also exerted an influence upon other disciplines. Thus we find that grammarians have always taught that the simplest form of expression of judgment is the categorical form which unites a subject with a predicate.

To be sure, it was impossible to conceal for long all the difficulties stemming from the application of this principle. It seems that propositions such as: it rains, it is lightning, cannot conform to this view. The majority of investigators, however, were so strongly convinced of the truth of the classical theory that in cases of this kind, instead of questioning the universal value of this principle, they felt compelled to look for the subject which merely seemed to be missing. Many of them actually thought that they had found such a subject. But in marked contrast to the agreement they had shown until then, from this point on they progressed in the most divergent directions. If we examine in detail with a certain critical eye the different explanations which they have tried to give us, we easily understand why none of them were able to arrive at a lasting and satisfactory solution or even to reconcile for the time being all the different points of view.

Scientific explanation consists in reducing multiplicity to unity. Naturally, logicians have also strived for this goal with respect to the issue under discussion, but all their efforts have failed. When we say: it rains, several philosophers have thought that the unspoken subject denoted by the indefinite pronoun is Zeus and that the meaning is Zeus rains. But when we say es rauscht (it is rustling), it is evident that Zeus cannot be the subject. Others, therefore, have thought that the subject in this case is das Rauschen, and that accordingly the meaning of the proposition is: das Rauschen rauscht. In a similar manner, they completed the previous example: the rain rains.

Hence, when we say: es fehlt an Geld (there is a lack of money) the meaning should logically be: das Fehlen an Geld fehlt an Geld (the lack of money lacks money), which is absurd. Accordingly, logicians explained that in this instance the subject is Geld, and that the proposition means: Geld fehlt an Geld (money lacks money). Closely examined, this was a serious blow at the desired unity of explanation. Perhaps, by closing one eye, logicians were able to conceal this fact, but they were no longer able to do this when they came across propositions such as: es gibt einen Gott (there is a God), where both in the proposition: das einen Gott Geben gibt einem Gott, and in the proposition: das Geben gibt einen Gott, as well as in the proposition: Gott gibt einen Gott, they could not arrive at any acceptable meaning.

In these instances, logicians had to look for an entirely different type of explanation. But where was such an explanation to be found? And even if

by dint of ingenuity they had been able to find it, of what use would it be for us to pass from one case to another? Indeed, such a procedure could only be considered as the caricature of a true scientific explanation. None of the many definitions of the hidden subject which have been attempted to this day can be considered pertinent, except perhaps a statement of Schleiermacher. If this scholar has really asserted that in the type of propositions under discussion the subject is chaos, this remark must be interpreted not so much as an attempt at explanation as instead a mockery of the hypothesis so far proposed by philologists.

Several investigators are of the opinion that the true subject of propositions such as: it rains, it is lightning, has not yet been discovered, and that even today science has the task to find it. But would it not be strange if the discovery of a subject which is thought of by everyone, and which, though unexpressed, forms the basis of these propositions, should cause such extraordinary difficulties? Steinthal tries to explain this on the basis of the fact that the grammatical subject is indicated, but is unthinkable. Many philosophers, however, would reply with Miklosich: "We do not exaggerate if we assert that grammarians do not deal with the unthinkable." (p. 23).

Thus the totality of grammatical phenomena and the absolutely grotesque failure of all the attempts at defining the nature of the hidden subject, no matter how often and with how much ingenuity these attempts have been made, led Miklosich to assert that the alleged subject of these propositions is

an illusion, that these propositions do not imply any connection of subject and predicate, that they are, to use his expression, subjectless.

Further consideration support this thesis; among them, the one concerning the nature of judgment must be emphasized because of its special importance. Miklosich argues here against those who, like Steinthal, deny any correlation between grammar and logic, but at the same time repel the attacks which, on the very basis of this correlation, might be made against his doctrine by psychologists and logicians. Indeed, he arrives at the conclusion that, because of the special properties of certain judgments, we should expect to find in a given language subjectless propositions. In his opinion, it is false to assert that every judgment implies a relation between two concepts. Often in our judgments we merely affirm or deny a simple fact. Undoubtedly, even in these cases we need a verbal expression for such an affirmation and negation; it is obvious, however, that this expression cannot consist in a connection between subject and predicate. Miklosich shows that quite frequently philosophers have recognized this fact, but usually have not been fully aware of the importance of their discovery. Not having a clear idea of the originality of this discovery, and at the same time clinging with curious indecision to certain remnants of the older conception, they rejected altogether in the end what they had said at the beginning. Thus Trendelenburg concluded that a proposition such as: it is lightning, did not really express a judgment, but merely the rudiment of a judgment

which precedes the concept of lightning and becomes attached to it, thereby forming the basis for the complete judgment: lightning is conducted by iron. And Herbart finally asserted that judgments such as es rauscht, were not judgments in the ordinary sense of the term, i.e., were not what logic strictly speaking calls judgment. With pertinent observations Miklosich denounces the inconsistency of these philosophers, and traces back the origin of their error concerning their misunderstanding of the essence of judgment and the faulty definition which they give of it (p. 21).

Miklosich considers these subjectless propositions as completely ascertained in all respects. Not only does he believe that their existence is beyond doubt, but he also shows that they are by no means as rare as we might think on the basis of the dispute which they have caused. The great variety of these propositions has led him, in the second part of his treatise (pp. 33-72), to give a comparative synopsis of their four major classes: subjectless propositions containing an active verb, a reflexive verb, a passive verb, and the verb to be, each of these classes being illustrated by means of numerous examples taken from the most disparate languages. This is especially true of the first class in which he establishes eight subdivisions, in order to group the propositions according to the difference of their content. As a generally valid principle, he notes (p. 6) that the finite verb of subjectless propositions always stands in the third person singular, and, whenever the form admits a difference of gender, is always neuter.

He pursues this analysis also in other respects. He shows that the propositions under discussion are not more recent than those which are expressed with a subject; they have appeared from the very outset among the various forms of propositions (p. 13 ff., p. 19), but in the course of time have disappeared from several languages (p. 26). He shows that those languages which have retained them enjoy thereby an advantage, since their use can greatly enhance the vividness of expression (p. 26). Likewise, he shows why even in other respects subjectless propositions cannot be equated with categorical propositions which are considered identical with them. "Ich friere, for instance, is not entirely identical with nich friert. Instead of saying: was frieret du draussen, komme doch herein!, we cannot say: was friert dich's draussen?, etc. Nich friert cannot be used if I expose myself voluntarily to the cold" (p. 37).

## II

This, in substance, is the content of the book upon which I shall now venture a few critical remarks.

The summary which I have given of this treatise is by itself sufficient to show how much I approve of it as a whole and especially its fundamental thesis. The proofs offered for this thesis appear to me so convincing that even those who oppose it can scarcely escape from its truth. Quite independently of these proofs, I long ago arrived at the same view by means of a purely psychological analysis, as I very explicitly stated when I began to publish my Psychology in 1874.

Even though I have taken great pains to state quite clearly my doctrine and to demonstrate the untenability of all former opinions, up to now I have had but slight success. With the exception of rare instances, I have not been able to convince philosophers, much as Miklosich has not been able to convince philologists with the first edition of his work. When a prejudice has become more and more firmly entrenched throughout many centuries; when a doctrine has penetrated even into elementary schools; when a given principle is considered as a fundamental principle which serves as a basis for many conclusions and, so to say, makes them immutable through its weight, we cannot expect that the error will disappear as soon as it has been refuted. On the contrary, it is to be expected that mistrust of the new opinion will be so great as to prevent even a close examination of the foundations upon which it rests. Nevertheless, when two independent investigators reach the same conclusion, when by entirely different paths they arrive at the same goal, it is to be hoped that this agreement will not be dismissed as a mere coincidence, and that their views will be given closer attention. I hope that this will be so in the case of the new edition of Miklosich's work in which I was delighted to find my own work taken into consideration.

While agreeing on the main thesis, we differ on certain secondary issues. Even though these issues are of little importance, I shall nevertheless mention them briefly.

Miklosich has called "subjectless propositions" those simple propositions which do not unite a subject with a predicate. I agree with him in admitting

these propositions, but cannot entirely approve either his terminology or the reasons that have induced him to resort to it.

Subject and predicate are correlative concepts which stand or fall together. A proposition which is truly subjectless must also be said to be without a predicate. For this reason, it seems to me that Miklosich is not entirely right when he designates such propositions only as subjectless, and is completely wrong when he calls them purely predicative propositions (cf. p. 3, 25, 26, and elsewhere). This could lead us to think that he likewise believes that a second concept (the subject) is understood, though not expressed, had he not denied this in the most clear-cut fashion (p. 3); or that he considered such propositions merely as curtailed categorical propositions, and the latter as the original propositions, had he not explicitly rejected this also. His view rather seems to be simply that the natural progress of thought and language occurs in general from a simple proposition to a categorical proposition in such a way that to the concept which stands alone in the former another concept is added in the latter as subject. "Subjectless propositions," he asserts (p. 25), "are... propositions which consist only of a predicate, i.e., of that element which in a great number of proposition must be considered as the first element in the natural formation of thought, for which a subject may, but need not necessarily be sought."

This statement can hardly be correct, and there seems to be little justification for the use of the term "subject" in this connection. That which stands first in the construction of judgment is undoubtedly its funda-



mental element. The temporal succession of words also does not agree well with Miklogich's view, since the categorical propositions ordinarily begin with the subject. In opposition to such a view, we can also assert that the emphasis usually falls upon the predicate (which led Trendelenburg to designate the predicate as the main concept and to assert with some exaggeration that "we think in predicates," cf. p. 19). In reality, if the predicate is the new concept, it will naturally be the object of greater interest. On the other hand, we should expect exactly the opposite, if the concept of the subject contained the newly added element.

We may with equal justifications: a bird is black and something black is a bird; Socrates is a man, and a man is Socrates. Aristotle himself, however, pointed out that only the first predication is natural, while the second is artificial. This is actually the case, since we naturally take as subject the term of which we become first aware in forming a judgment, or which we must first consider in order to understand the proposition and to ascertain its truth or falsity. We can convince ourselves of the existence of a black bird by looking for it among birds or among black objects; more easily, however, among the former. In the same way we may establish more easily the species and gender to which an individual belongs by analyzing its nature than by examining the whole extension of the corresponding general concept. The exceptions here clearly confirm the rule and its foundation. For instance, when I say: there is something black there; this something black is a bird, it is because I have first of all recognized the color that I make it the subject in a subsequent categorical proposition.

Of the two categorical sorites, the Aristotelian and the Goelenian, the former considers as subject in each successive proposition the term which this proposition has in common with the preceding one, while the latter considers it as predicate. It is for this very reason that the former sorites appears the more natural and as such is generally considered as the regular, while the latter is called reversed. Similarly, when a proposition which does not unite two concepts is followed by a categorical proposition which has a term in common with it, we usually do not use this term as predicate, but as subject; accordingly, we could say that we are seeking a predicate for the subject rather than a subject for the predicate. For example: there is a sound of running water; the sound comes from the brook. It is thundering; the thunder heralds an approaching storm. There is a smell of roses; this rose-scent comes from a neighbor's garden. There is laughter; the laughter is due to the clown. There is lack of money; this lack of money is the cause of the depression in trade. There is a God; this God is the creator of heaven and earth, etc.

In my opinion, it is only in one sense that the expression "subjectless proposition" can be justified and perhaps even recommended, i.e., when we take into consideration the fact that the concept contained in it, being a unitary concept, is naturally also the main concept and plays the role which we have attributed to the predicate in the categorical proposition. In the same way, we would much rather say that categorical propositions, in comparison with hypothetical propositions, are propositions without antecedent

than propositions without consequent; not in the sense that we could speak of consequent without antecedent, but rather because in the construction of hypothetical propositions the consequent is the fundamental proposition. In this context, therefore, I might perhaps accept Miklosich's expression "subjectless propositions."

There is another point on which I cannot entirely agree with Miklosich. It is the question of the extension of these subjectless propositions. Miklosich correctly emphasizes that the limits here should not be drawn too narrowly. Nevertheless, such limits undoubtedly exist, as shown most clearly by his attempt to survey and classify all the contents which can be expressed in these propositions. This appears to me incorrect. Strictly speaking, the applicability of the subjectless form may be rather unlimited, since, as I believe to have already demonstrated in my Psychology, every judgment, whether expressed in the categorical, hypothetical or disjunctive form, may assume, without the least change in meaning, the form of a subjectless proposition. Thus the proposition: some man is ill, is synonymous with: there is a sick man; and the proposition: all men are mortal is equivalent to: there is no immortal man.<sup>1</sup>

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<sup>1</sup>Supplementary note (1889).—What I say here of the universal applicability of the existential form applies only, with an obvious restriction, to judgments that are truly and completely simple. To express these judgments, logic has always used the categorical form; in our daily life we also use this form to express a series of judgments based upon one another. This can be seen clearly in the proposition: this is a man. The demonstrative pronoun this implies by itself our belief that something exists; a second proposition subsequently attributes to it the predicate man. Similar examples occur frequently. In my opinion, the categorical form was originally intended

In yet another respect, Miklosich seems to me to have restricted too much the applicability of his subjectless propositions. We have seen that, according to him, these propositions "constitute a linguistic advantage," "of which not all languages can even remotely boast" (p. 26). This, however, appears scarcely credible, if it is true, as he himself has so convincingly demonstrated in another passage, that there are and always have been judgments which do not consist in any combination of two ideas with each other, and which consequently cannot be expressed by means of a connection of a subject with a predicate (p. 16). This implies not only the necessary existence of subjectless propositions in general, as Miklosich affirms, but also the existence of such propositions in all languages, which he denies.

In my opinion the error of the author in this connection can be explained at least in part on the basis of the fact that, in order to proceed with the utmost caution and not to lay claim to any unwarrantable example for his thesis, he has not ventured to regard as subjectless certain propositions which in reality are so. We saw that Miklosich was of the opinion

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to express such double judgments which recognize something, while affirming or denying something else of it. I also believe that the existential and impersonal forms have originated from this form through a change of function. This does not alter its essential nature: a lung is not a swim-bladder, even though genetically it has developed from it; and the preposition kraft (on the strength of), even though originally derived from a noun, remains a mere syncategorematical particle (cf. Mill, Logic, I, 2, 2).

that the finite verb of subjectless propositions always stands in the third person of the singular, and, whenever the form of the gender allows it, in the neuter. This was undoubtedly too narrow a limit, which he himself rejected, even though only in a much later passage. In the second part of his treatise he states: "In the propositions: there is a God, the concept of God is taken in an absolute sense without a subject; the same thing is true of the propositions: there are Gods." And he adds: "The is of the existential proposition takes the place of the so-called copula 'is' which, in many, though by no means in all languages, is indispensable to the enunciation of judgment, and has the same significance as the personal ending of finite verbs, as is clearly shown in the propositions: es ist Sommer, es ist Nacht, in comparison with the propositions: es sommert, es nachtet (it is summer, it is getting dark). Is, therefore, is not a predicate" (p. 34; cf. also p. 21 above). As a matter of fact, if we consider as subjectless the proposition: there exists a God, we must likewise consider as subjectless these other propositions: there is a God, there are Gods. The previously established rule, therefore, has proved to be too narrow. The fact that existential propositions and other possible analogous forms must all be classified among subjectless propositions should confirm what we have already tried to prove above, namely, that no language exists, or can exist, which is entirely without these simplest propositions. Accordingly, only some special classes of subjectless propositions might constitute what, in agreement with Miklosich, we must recognize as the special advantage of certain languages.

These are the criticisms which I thought it necessary to make. It is easy to see that, if found to be justified, they in no way prejudice either the correctness or the value of the author's main thesis, but rather lend to it a still wider significance. For this reason, I conclude these observations with the renewed wish that this little work, so rich in content, which in its first edition did not meet with sufficient general recognition, may in the second edition (which rectifies certain points, further develops many others, and especially refutes with laconic brevity, but with true dialectic strength, the critical objections of scholars such as Benfey, Steinthal and others) find the interest it deserves in terms of the importance of the problem and the excellent treatment of the subject matter.

APPROVAL SHEET

The dissertation submitted by Antos C. Rancurello has been read and approved by five members of the Department of Psychology.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the dissertation is now given final approval with reference to content, form, and mechanical accuracy.

The dissertation is therefore accepted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy.

June 9, 1966  
Date

Frank Koller  
Signature of Adviser