

# **MICHOTTE'S EXPERIMENTAL PHENOMENOLOGY OF PERCEPTION**

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Edited by  
Georges Thinhès, Alan Costall and  
George Butterworth

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Volume 13

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**GEORGES THINÈS, ALAN COSTALL AND  
GEORGE BUTTERWORTH**

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*Michotte's Experimental  
Phenomenology of Perception*

EDITED BY  
GEORGES THINÈS

ALAN COSTALL

GEORGE BUTTERWORTH



1991

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# **RESOURCES** **for ECOLOGICAL PSYCHOLOGY**

*Edited by*

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This series of volumes is dedicated to furthering the development of psychology as a branch of ecological science. In its broadest sense, ecology is a multidisciplinary approach to the study of living systems, their environments, and the reciprocity that has evolved between the two. Traditionally, ecological science emphasizes the study of the biological bases of *energy* transactions between animals and their physical environments across cellular, organismic, and population scales. Ecological psychology complements this traditional focus by emphasizing the study of *information* transactions between living systems and their environments, especially as they pertain to perceiving situations of significance to planning and execution of purposes activated in an environment.

The late James J. Gibson used the term *ecological psychology* to emphasize this animal-environment mutuality for the study of problems of perception. He believed that analyzing the environment to be perceived was just as much a part of the psychologist's task as analyzing animals themselves, and hence that the "physical" concepts applied to the environment and the "biological" and "psychological" concepts applied to organisms would have to be tailored to one another in a larger system of mutual constraint. His early interest in the applied problems of landing airplanes and driving automobiles led him to pioneer the study of the perceptual guidance of action.

The work of Nicolai Bernstein in biomechanics and physiology

presents a complementary approach to problems of the coordination and control of movement. His work suggests that action, too, cannot be studied without reference to the environment, and that physical and biological concepts must be developed together. The coupling of Gibson's ideas with those of Bernstein forms a natural basis for looking at the traditional psychological topics of perceiving, acting, and knowing as activities of ecosystems rather than isolated animals.

The purpose of this series is to form a useful collection, a resource, for people who wish to learn about ecological psychology and for those who wish to contribute to its development. The series will include original research, collected papers, reports of conferences and symposia, theoretical monographs, technical handbooks, and works from the many disciplines relevant to ecological psychology.

### **Series Dedication**

To James J. Gibson, whose pioneering work in ecological psychology has opened new vistas in psychology and related sciences, we respectfully dedicate this series.

# *Preface*

Toward the end of a long and productive career, the Belgian psychologist, Albert Michotte, embarked upon a fresh phase of research, his experimental phenomenology of perception. Only a small portion of this important research has been published in English translation; therefore, the purpose of our book is to present a selection of the most significant and representative papers. Michotte's work has a clear and lively style, illustrated by many telling examples, and, in our view, can be left very much to speak for itself. We have, however, provided introductions to the various themes and more general accounts of his career and work in order to provide historical context and some indication of links with current research.

It would be no exaggeration to say that James Gibson was astounded by the close similarity between Michotte's later work and his own. As he explained in his autobiography:

There are other psychologists who have thought about perception almost as I do, but not quite. The one with whom in recent years I have been in strikingly near agreement is Albert Michotte, of Louvain—in everything but the notion of external information and external meaning. . . . It is a notable lesson in the convergence of experimental science that such a man as he and such a one as I, from totally different backgrounds, should have found ourselves agreeing so thoroughly and so delightedly—he, a student of Cardinal Mercier and I of the materialist Holt; he, a believer and phenomenologist and I a skeptic and behaviorist; he, a member of the

conservative Belgian nobility, a prince of the Catholic Church, and I a Midwestern Sunday-school radical with an underlying suspicion of popery. We got the same results. This is what counts. It makes one believe in the possibility of getting at the truth. (Gibson, 1967, p. 142-143)\*

Michotte, like Gibson, challenged the view, prevalent in the theory of vision since Medieval times, that perception is ultimately dependent upon the intervention of intellect, and both argued that meaning can be perceived in a non-mediated way. Their shared interest in the problem of meaning derived from a common concern, the relegation, in the ontology of modern science, of meaning and value to the status of the 'unreal' and purely subjective. This issue is fundamental to the very idea of a scientific psychology.

Michotte's work, however, has further relevance for modern psychology. Needless to say, Michotte's ideas have been very influential in the recent research on perceptual development, and his work on social perception has continued to be very influential in social psychology. Yet there are other areas of his work that are equally important but seldom cited. For example, there is a remarkable set of articles by Michotte on pictorial representation (including film) that is virtually unknown to contemporary researchers in this field. In short, Michotte, who was unquestionably a significant figure in the history of psychology, has plenty to contribute to current debates.

Our own interest in Michotte is long-standing. Georges Thinès was Michotte's last assistant at Louvain. Alan Costall was introduced as an undergraduate to Michotte's work by Tim Miles (who, with Elaine Miles, prepared the English translation of Michotte's text on the perception of causality). George Butterworth first encountered Michotte's writings on perception and cognition, and phenomenal permanence, during his doctoral research on the development of the concept of object permanence.

We have benefited from the help of many people. We thank most of all Bill Mace, not simply for his remarkable patience but for his real care and relentless encouragement. The son of Albert Michotte, Baron Fritz Michotte de Bruxelles, has been very kind in providing us with many letters that his father received from fellow psychologists. Tim and Elaine Miles generously contributed a translation of Michotte's work on amodal completion. Françoise Carré and Patrick Stevenson of the Language Centre at Southampton University were most helpful in their advice on difficult points of translation. We are also very grateful to the following people for their assistance: Derek Boyle, Paolo Bozzi, Nicola Bruno, Walter Gerbino, Ed Reed, Ann Richards, and Paul Whittle.

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Alan Costall

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Phenomenology of Perception*

# *General Introduction*

## GENERAL INTRODUCTION

Alan Costall

Albert Michotte is regarded as a classic figure in the history of psychology. For English speaking psychologists, however, his reputation is based almost exclusively on his research on the perception of causality.

Michotte was well into his 60s when his work on causality was first published in 1946 (an English translation of the second edition appeared in 1963). Yet this research marked just the beginning of what Michotte came to regard as the culmination of his life's work, his experimental phenomenology of perception. In fact, Michotte remained an active researcher until shortly before his death in 1965, publishing many papers on further aspects of causality and the perception of "functional relations," and also on phenomenal permanence and reality. Although a few of these later papers are referred to by American and British researchers, very little of Michotte's work has been translated. Apart from *The Perception of Causality* (Michotte, 1963), only two further works by Michotte have been published in English. The first is Michotte's own contribution to *The History of Psychology in Autobiography* (Michotte, 1952), and the other is his paper "The Emotions Regarded as Functional Connections" (Michotte, 1950). Neither of these papers is easily obtainable through university libraries.

The present text provides translations of almost all of Michotte's

papers published after 1946. Our purpose is to draw the English reader's attention to his writings on phenomenal permanence and reality, as well as to developments of his better known work on causality. This book, therefore, complements *The perception of causality* (Michotte, 1963) to make available in translation the full scope of Michotte's experimental phenomenology of perception.

Michotte's writings in this final phase of his research centered upon four main themes: phenomenal causality, phenomenal permanence, phenomenal reality, and the relation between perception and thought. We have organized the book according to these themes, and each section begins with an introduction to each specific theme. The purpose of this initial section is to relate Michotte's work to its intellectual and historical context. As part of this general introduction, we include Michotte's own account of his scientific career, in which he identifies three distinct phases of his research: initial studies associated with the research on "imageless thought" by the Würzburg psychologists; a second phase, dating from the end of World War I, influenced by behaviorism and the growing criticism of introspectionism; and the final phase, his experimental phenomenology.

In this introductory section, we expand and underscore Michotte's own account of the background to the final phase of his research and then attempt to characterize Michotte's approach to theory and research in his experimental phenomenology. Certainly, Michotte is a significant figure in the history of psychology not solely for his experimental phenomenology. He had achieved an international reputation very early in his career, and, as Fauville (1947, p. 14) has noted, his work almost coincides with the history of psychology. However, we aim to do more than merely offer an account of Michotte as an historical figure. Michotte's work is directly relevant to current debates and developments in psychology. Many of the assumptions *challenged* by Michotte even in his earliest work have regained a dominant hold on psychological theory. These include the "intellectualist" interpretation of perception (e.g., the treatment of perception as a process of logical inference or hypothesis-making); the commitment to a view of the individual as a mere spectator, and the consequent neglect of human activity and artifacts; and the assumption that meaning is purely "subjective" and derivative—a mental projection upon a neutral and colorless world.

## THE BACKGROUND TO MICHOTTE'S EXPERIMENTAL PHENOMENOLOGY

Alan Costall

### Michotte and the Würzburg School of "Imageless Thought"

Psychologists seem to be faced with the unfortunate choice of being either vague or irrelevant. Michotte was certainly aware of this dilemma, for it was one he sought to resolve throughout his long career. A fundamental key to his work is the attempt to promote psychology both as an exact science and also as one relevant to human concerns. In effect, Michotte was trying to reconcile two conflicting traditions within the history of psychology, those of natural and moral science.

Michotte encountered the tension between the natural and moral sciences while still a student at the Catholic University of Louvain, between 1897 and 1905, for he not only received a thorough training in natural science but also studied philosophy with the man who was later to become Cardinal Mercier. According to Michotte, Mercier's influence was crucial in his later intellectual and "human" development (Michotte, 1952; for further biographical details, see Nuttin, 1947, 1966).

Mercier was the first president of the newly established Institut Supérieur de Philosophie at Louvain, a center devoted to the attempt to base Catholic theology on the philosophy of St. Thomas Aquinas and to bridge the gulf between philosophy and natural science (Kenny, 1980). In 1891, Mercier had already organized a course in experimental psychology and a laboratory, to which Michotte was appointed after he graduated in 1905.

In accord with a recent papal doctrine (the encyclical of Pope Leo XIII of 1879), Mercier viewed Thomism as an important counter to Cartesianism, and his many writings on psychology were directed against positivism, materialism, and idealism (Strasser, 1951; Misiak & Staudt, 1954, pp. 34-65). Mercier himself saw psychology as foundational not only for the other sciences but for philosophy itself, and viewed Wundt's psychology with great enthusiasm as having direct implications for philosophy. Michotte did not share Mercier's high opinion of Wundt, and, on the many occasions when he referred to the relations between philosophy and psychology, he took care to warn of the dangers of psychologism, and denied any *direct* relation, at least, between the two disciplines (e.g., Michotte, 1947, 1951). Nevertheless, some important Thomist themes emerge in much of Michotte's research, such as the problems of intentionality and embodiment and the emphasis on perception as the source, if not the limit, of all of our knowledge (Gilson, 1924; Kenny, 1984; and Pieper, 1963).

Between 1905 and 1906, Michotte spent some time at Wundt's laboratory but, as he makes clear in his autobiography, he found Wundt's system ultimately unsatisfying (Michotte, 1952). Thanks to the recent, important corrections to the standard accounts of Wundt's psychology (e.g., Blumenthal, 1979, 1985; Danziger, 1979; Mischel, 1970), the reasons for Michotte's disenchantment are now quite clear. Although Wundt is credited as the founder of experimental psychology, he was quite emphatic that its method could only be applied to a highly restricted domain, the study of sensations and feelings, since only these phenomena, he believed, were subject to direct experimental manipulation. However, Wundt did not ignore the problems of meaning and value but he argued that these could only be investigated by the methods of cultural and historical analysis. In contrast, Michotte, as he himself stressed, was not only by nature an experimenter but was also resolved to tackle the problems of what he called "the higher mental processes" by the methods of natural science.

While Michotte was on the rebound, as it were, from Wundt's psychology, he very soon met up with Külpe and went to work at his laboratory at Würzburg in 1907 and 1908. Külpe had come to rely almost exclusively on introspection and had extended the method to the study of higher mental processes. Indeed, introspectionism is very much an invention of the present century. As Woodworth has explained, "so far from experimental psychology having begun as a purely introspective enterprise and needing young upstarts to force it into objective channels, it made its beginning with nonintrospective studies of reaction time, psychophysics, and memory" (Woodworth, 1924, p. 258). In fact, Wundt subjected the studies of the Würzburg school to merciless criticism, describing their research as "sham experiments which have the appearance of being systematic only because they take place in a psychological laboratory" (Wundt, 1907, cited in Humphrey, 1951, pp. 107, 114). Despite these unpromising testimonials, Michotte's early work adopted Külpe's method of systematic introspection, and Michotte's early studies were identified as very much part of the Würzburg school of "imageless thought" (e.g. Aveling, 1931; Pillsbury, 1947).

Külpe had reacted strongly against his earlier commitment to positivism in favor of realism (Ogden, 1951). Külpe, along with Husserl who had strongly influenced him, was a dominant figure in the general reaction against positivism within continental psychology and philosophy in the early part of this century (Leichtman, 1979; Waterhouse, 1981). The specific targets of the Würzburg researchers were phenomenalism and sensationalism. They had extended the introspective method to show that the phenomenologists held too narrow a concept of experience—that there was more to the content of experience than

mere sensations and images (Humphrey, 1951; Lindenfeld, 1978). Incidentally, it is curious how close the aims of the Würzburg school were to Thomism in this respect. To quote a brief section from *A Sketch of Medieval Philosophy*, by D.J.B. Hawkins (cited in Freemantle, 1955, p. 149):

St. Thomas was completely Aristotelian in finding the whole material of thought in sense-experience. Thomism is, therefore, a philosophy of experience, but it is not a mere empiricism, which stops short at *sense-experience*, and refuses to see in the development of thought anything but an elaboration of sensations and images.

Michotte's major studies of this period (Michotte & Prüm, 1910; Michotte & Ransy, 1912) are very clearly in accord with this view. Michotte's work on choice, which claimed to identify an awareness of one's own activity beyond mere sensation, drew his attention to the dynamic aspect of mental functioning and to action rather than static content (Nuttin, 1966). Michotte's other main studies at this time, those on logical memory, led him to recognize the integrating function of thought in memory so that (as he later put it):

[the items become] embedded in a complex relational unit (a Gestalt!) . . . from this moment I was convinced that observational data justified, aside from any metaphysical considerations, the distinction of two levels of psychic activity: on the one hand, the level of sensory experience and of everything related to it (formation of units, associations, emotions, etc.), and, on the other, a higher level, that of thought. (Michotte, 1952, p. 218)

For Michotte, however, this higher level of thought did not involve the introduction of further mental elements but rather special functions of symbolism and integration, which serve to organize and abstract from sensory experience. This view persisted and remained central in his later phenomenology, where he argued that such perceptual categories as causality, permanence, and reality serve to "prefigure" our intellectual concepts.

### **Michotte's Reaction to Behaviorism**

So far, I have tried to establish the ideological context within which Michotte was working and that shaped his later phenomenology. Wider developments, both within psychology and also in Catholic philosophy, encouraged Michotte's stance against positivism, and the related "isms" of sensationalism, atomism, and intellectualism. Indeed, some of the

obvious similarities between Michotte and the Gestaltists, as he himself made clear, were not due to any direct influence but rather a consequence of a more general reaction against positivism at the beginning of this century. I have also attempted to show how Michotte had begun, in his early studies based on systematic introspection, to bridge the gulf between natural and moral science by tackling problems associated with the former with methods associated with the latter and hence had brought meaning and value within the domain of experimental science.

Michotte's early researches were well received, and by the second decade of this century he had already established a considerable reputation. The future course of his research seemed clear. However, the First World War intervened, and Louvain was devastated. The personal impact on Michotte was severe: He lost his home and his father died of exposure. He moved with his family to Holland where he continued to perform research but in the quite different field of acoustics.

Even before the War, Michotte had come to have doubts about the direction his research was taking. In a paper published in 1907, he criticized the method of systematic introspection, and, more specifically, the method of retrospection—the technique adopted by the Würzburg researchers themselves (Michotte, 1907; see Danziger, 1980). These doubts about introspectionism only became really pressing, however, once he had returned to Louvain after the war to resume his psychological research.

The period from Michotte's return to psychology until he began his program of experimental phenomenology in 1939 marked not merely a stage of transition but one of deep and prolonged intellectual crisis. How was he to proceed in his attempt to bring the problem of meaning within the scope of natural science now that he could no longer trust his earlier experimental methods?

In 1923, Michotte made his first contacts with the Gestalt psychologists, when he met Köhler and Koffka at the International Congress held at Oxford. The Gestaltists had themselves been highly critical of both analytical introspectionism and Külpe's appeal to further mental elements. They insisted on the need for a full-blown holistic approach (e.g., Koffka, 1924). Michotte was clearly impressed by the convergence of his concerns with those of the Gestaltists, but he was also critical of what he saw as their formalism, their failure to address the problem of the intentionality of perception or, in other words, the problem of meaning.

A special symposium was held at the next International Congress at Groningen in 1926, on the psychology of form. Michotte's contribution

was devoted to the problem of the relation between perceptual organization and meaning (Michotte, 1927; for brief commentaries, see Elmgren, 1939; Koffka, 1928; for an excellent account of Gestaltism from the 'French perspective,' see Guillaume, 1937). On the basis of tachistoscopic experiments, Michotte argued that one does not immediately experience the meaning of the perceived form; the "taking on of meaning" involves a separate stage, the intervention of past experience (cf. Köhler, 1930). Clearly, Michotte's view at this time, and for some time after, differed considerably from that central to his later phenomenology, that meaning can also be intrinsic to perception itself. However, even in this early paper, Michotte took care to stress that the "taking on of meaning" involves the embedding of the perceptual structure in a wider context, not a mere addition to the perceptual form. As he put it, "it is not a juxtaposition, the appearance of something joined to the form . . . the relations between them are very intimate because the meaning is obviously connected to the intuitive organization. Furthermore the inverse relation also exists, and meaning can have a considerable influence on the structure of perception" (Michotte, 1927, pp. 169-170).

In this paper, Michotte had explicitly omitted any reference to what he called the "action perspective." In 1929, however, at the International Congress at Yale University, he directly addressed the question of the relation between perception and action. Unfortunately, this paper was never published in full, but a substantial abstract did appear in the proceedings of that conference and is sufficient to indicate how much the paper itself anticipated his later phenomenology (Michotte, 1929). In this paper, he insisted that perception should not be considered the last stage in a process initiated by stimulation, but rather as a phase of action itself. This was the first occasion on which Michotte presented his views on the importance of functional relations in perception and raised the possibility that such meanings are intrinsic to perception itself. As Michotte later explained:

The thesis which I put forward at the Yale conference was in direct disagreement with all theories of the traditional kind . . . , since I expressed the opinion that certain physical events give an immediate causal impression, and that one can 'see' an object *act* on another object, *produce* in it certain changes, and *modify* it in one way or another. . . . The question that arises is this: when we observe these operations, is our perception limited to the impression of two movements spatially and temporally co-ordinated, such as the advance of the knife and the cutting of the bread? Or rather do we directly perceive the action as such—do we see the knife actually cut the bread? (Michotte, 1963, p. 15)

On the face of it, Michotte's paper of 1929 would seem to open the way for his later phenomenology, with its central emphasis on the spontaneously meaningful character of our everyday world. Why, then, the delay of 10 years before he started his program for an experimental phenomenology of perception? The reason becomes clear on reading a substantial paper published by Michotte in 1936, titled "Psychology and Philosophy" (Michotte, 1936), for it is quite evident in this later paper that Michotte was still struggling to reconcile his driving interest in the problem of meaning with his equally long-standing commitment to experimental science. Indeed, Michotte begins this paper by stressing that by "science" he specifically meant experimental or positive science (Michotte, 1936).

Despite its title, Michotte's paper on philosophy and psychology is essentially methodological, being concerned with psychology's status as a science following the deadlock of Külpe's introspectionism. Behaviorism had been a major influence on Michotte during the middle phase of his work, and not only in a negative way. Its functionalist emphasis conformed well with Michotte's own interests and led him to concentrate his research on motor reactions or, as he put it, the "morphology of movement" (Michotte, 1952, pp. 222-223). Indeed, by this time, Michotte had become convinced that psychology was a science of behavior, though he never described himself as a behaviorist, but rather as a "psychologist of action." As I shall shortly explain, Michotte's reason for making this distinction was that he was equally convinced that the psychologist should be concerned with behavior not as mere movement but as meaningful action (cf. Heider, 1958; Holt, 1915).

The basic point of Michotte's paper was to argue that, although there could never be a science of inner experience, a scientific psychology was nevertheless possible. In relation to perception, Michotte insisted that the reports obtained from observers can provide information about whether they respond similarly or differently to different situations, even if they can tell us nothing about what they actually experienced.

In this paper, Michotte adopts what he calls the "Situation-Response" formula of the behaviorists, but then immediately raises the important question of how we should understand the terms "Situation" and "Response." This is the way Michotte himself put the matter:

Consider the example of someone taking pity at the sight of a beggar, and giving him some money. Can one really believe that either the situation or response of such a person can be exhaustively defined in purely physical and physiological terms? . . . Clearly there is something which evades such an analysis, and it is exactly this that seems so essential to psychological knowledge—this is the "meaning" or "significance". For anyone

observing this act of charity, the situation would have the same meaning—the presence of a beggar, despite the fact that they would see it from different vantage points and hence receive different retinal stimulation. Similarly, the act of giving could be performed in limitless ways, using quite different groups of muscles, and yet every observer would experience it as the same act of donation. (Michotte, 1936, p. 221)

Michotte's recurrent point in his 1936 paper is that it is not the situation or response as such, but rather their meaning that really matters for psychology. Thus, as Michotte put it, we must consider human actions in the same terms as we use in everyday life, and he even went so far as to draw an analogy with the language of moralists and novelists.

However, Michotte insisted that the meaning of the situation and the response are derivative, an inference based on past experience. To quote Michotte, it follows that "the meaning is nothing but the end result of a vast synthesis, and stands only as a sign, the only effective indicator, of such a synthesis" (Michotte, 1936, pp. 221–222).

### **The Move Toward Experimental Phenomenology**

Michotte dated the beginning of his Experimental Phenomenology from the year 1939, but what exactly set this final phase of his work apart from his earlier research?

In his autobiography, Michotte defines his Experimental Phenomenology in terms of its *content*: the fundamental problems of causality, permanence, and reality. Yet these topics, in that they concern issues central to positivism, are largely continuous with his early attempts to show that "will" and "our sense of agency" are more than mere fictions. [In fact, one of Michotte's later papers discusses the perceptual basis of 'self-identity' (Michotte, 1953).] Even the emphasis in his experimental phenomenology on the importance of the *meaning* of the situation to the individual was stated very clearly by Michotte in his earlier writings, as in his Yale address of 1929 and also in his criticism of the S-R formula (Michotte, 1936). It is tempting instead, therefore, to identify this final stage of Michotte's research solely in terms of its new technique. But, as I shall argue, what best defines Michotte's experimental phenomenology is its remarkable reconciliation of his theoretical and methodological concerns. For, in this final research, theory and method became thoroughly interwoven as a consequence of Michotte's claim that meaning is directly experienced. In the middle of his career, Michotte had been forced, in effect, to acknowledge Wundt's arguments for the restricted scope of experimental psychology. Wundt had criticized the attempt by the introspectionists to study the higher mental functions for

the lack of replicability and the absence of “concomitant variation” of effects in relation to the experimental conditions (Hall, 1924). Michotte, even in his earliest studies using “systematic introspection,” was alert to such criticisms, and sought to introduce systematic variation of the conditions or at least to record objective “symptoms” such as reaction times (Michotte 1952; see also Thinès, 1977). However, if perceptual meanings are indeed *derivative* (as he for a long time believed) then, of course, such meanings would hardly be amendable to precise, experimental control. In fact, in the mid-1930s, Michotte came to look to the statistical techniques of mental testing as the most promising field of scientific advance in psychology (Michotte, 1936), although these techniques never came to play an important role in his own research. As Katz (1947) has noted, Michotte’s idea of good research was the identification all the relevant variables through exhaustive experimental analysis.

Toward the end of the 1930s, however, Michotte discovered a means by which phenomenal causality could be subjected to psychophysical study (concomitant variation) in just the same way as colour, shape and movement, and with similarly precise results. His new method involved the use of simple schematic displays in which the spatiotemporal conditions of stimulation could be readily manipulated. Under the appropriate conditions, he found that observers reliably reported seeing a causal collision—one object ‘pushing’ another and making it move. Minor variations in the conditions would either destroy this effect, or else give rise to different kinds of casual effect (such as one object ‘carrying’ another along, and so on).

Michotte’s demonstration that perceived causality can be brought under lawful experimental control does mark an important extension of the scope of experimental psychology. It served not only to address what Michotte saw as a neglected topic in the psychology of perception—the problem of meaning—but also to counter Wundt’s denial of the very possibility of an experimental approach to this topic. These new researches were indeed an ingenious development of experimental technique, and are often assessed solely in these terms. Yet, as far as Michotte was concerned, this was not a question of experimentation merely for its own sake. His new technique at last freed him to pursue a long-standing project which had much wider theoretical and indeed personal significance.

According to Michotte, the demonstration of lawful experimental control (concomitant variation) constituted a vivid confirmation of his view that meaning could be *intrinsic* to perception, or “directly lived” (Michotte, 1963, p. 15). The experimental displays, he contended, “abstract” the relevant light patterns available in everyday situations

(Michotte, 1941), so that the experiment itself models the relation between the perceiver and his or her world. Thus the possibility of precise experimental control is, in fact, a reflection of a more general lawful relation—the adaptation of perceiver and world.

So many aspects of Michotte's personal and intellectual life served to give prominence to the question of meaning. As I have argued, his work can be seen as an aspect of the widespread "revolt against positivism" in European thought, and this revolt involved a diversity of new intellectual movements. In Michotte's case, perhaps first in importance was the rise of neo-Thomism in Catholicism. The appeal to Thomist philosophy was explicitly intended to counter the Cartesian (and ultimately Platonist) notion of the body as an obstacle to knowledge rather than the means through which it is obtained. In fact, this challenge within Catholicism to dualism—so fundamental to the scheme of modern science—addressed the theological assumptions from which dualism itself largely derives. On this alternative view, our existence as embodied beings within the world is the natural and necessary condition of all human knowledge (including spiritual knowledge). The body is not a "prison," nor is the world devoid of significance.

Secondly, in his choice of the term "experimental phenomenology," Michotte clearly intended to identify his work with the wider development of phenomenology in psychology and philosophy. Early in his career, he had been introduced by Külpe to the works of the major figures (Michotte, 1952) but, in addition, phenomenology came to figure prominently at the Institut Supérieur in its work of reconstructing Catholic philosophy (Spiegelberg, 1960). The details of Michotte's commitment to this movement are unclear, for, as in the case of Thomism, he wrote very little about his philosophical views. But, in this case too, meaning figured as a fundamental issue. Brentano's principle of the intentionality of consciousness (itself derived from scholastic philosophy) gave meaning this central position; indeed Brentano's students considered the basic task of phenomenology to be to "explicate the sense this world has for us all, prior to any philosophizing" (Husserl, 1929, cited in Lundh, 1983, p. 175). Michotte himself evidently concurred with Stumpf, rather than Husserl, in supposing that such "explication" could involve empirical inquiry instead of a *priori* investigation.

Finally, Michotte's biological orientation also served to alert him to the problem of meaning. For, if he concentrated upon the structure or 'morphology' of perception, thought, motivation or action, then it was always with a view to *function*. We tend to associate an emphasis on adaptation with British and American psychology, yet, in fact, a dynamic and functional approach has continued to be strongly repre-

sented by French speaking psychologists for a good part of this century (notably, Janet, Claparède, and Piaget). The concept of adaptation immediately brings the problems of meaning and value to central importance. Michotte, like Gibson, in treating the adaptive relation between knower and known, achieved an important synthesis of two seemingly conflicting perspectives, for, of course, from the wider evolutionary viewpoint, function and structure are not mutually exclusive but mutually constraining. As a psychologist, Michotte was, in effect, a "structural functionalist" (see Michotte, 1952, p. 235).

Michotte has been both celebrated (and criticized) primarily as an experimentalist. Certainly he was an ingenious and productive researcher, and he was duly reticent about "metatheoretical" issues. As I have tried to explain, however, the status of meaning had preoccupied him for a large part of his career and for several important reasons. He was no simple-minded empiricist, and the perception of meaning was not just another problem (see Michotte, 1952, pp. 234-235).

Frederic Bartlett, a close friend, stressed that Michotte's work on causality—performed during the German occupation—sustained him through this highly stressful time. For Michotte was cut off from the wider psychological community, and also under constant threat. As in the First World War, Michotte and his family had once more been driven from Louvain. Bartlett himself had arranged for him to work at Cambridge, but while on their way to England, Michotte and his party were caught by the Germans and taken back to Louvain. Although neither Michotte nor his family were subjected to any ill-treatment, "his sympathies were well known to be definitely on the English side, and it was impossible for him to feel really safe from one day to another" (Bartlett, 1966, p. 36). Although Bartlett liked to portray himself as a no-nonsense empiricist, he recognized, and respected, the real meaning Michotte saw in his work:

All of us who saw [Michotte] soon after the end of the war were disturbed and shocked at his appearance. . . . But when he began to talk about his experiments and their results, his manner would change and much of the earlier liveliness come back. I am convinced that these lovely experiments, and his interpretation of their results, had for him a deep, perhaps even religious significance, maintaining as they did his belief in *the integrity of the human mind and its—in a sense—untaught capacity to understand the basic connexion of natural phenomena.* (Bartlett, 1966, p. 36; emphasis added)

## THE EXPERIMENTAL PHENOMENOLOGY OF ALBERT MICHOTTE

Georges Thinès

### Experimental Phenomenology as a Fundamental Tradition Within Psychology

The founding of psychology as a science is generally acknowledged to have occurred in Germany—its ‘founder’ being Wilhelm Wundt. Little credit is given to the parallel movement that developed under the influence of Franz Brentano. Yet, the “empirical psychology” proposed by Brentano was intended to be scientific, even if it did not turn to physiology as an ultimate explanatory framework. Brentano’s psychology confined itself to phenomena as they appeared to the observer and sought the theoretical interpretation of them at the level of phenomenal organization itself. Brentano’s influence in the history of experimental psychology was by no means negligible. In particular, Stumpf (a student of Brentano) developed an original theoretical and methodological approach known as Experimental Phenomenology, which drew upon Brentano’s ideas and which, in turn, had a central influence both on Gestalt psychology and on Michotte himself (see Thinès, 1988).

The phenomenologists rejected the method of introspection considered as an analysis of essentially meaningless, “intra-psychic” elements (Giorgi, 1983). Thus, if the observer is presented with an array, such as a complex geometrical figure, the experimenter asks for no more than a description of its appearance, and refrains from insisting on a report of any “internal” reference to so-called elements of consciousness. Such phenomenal descriptions later became a fundamental rule of Gestalt psychology. The description is subjective in the sense that it informs the experimenter about how the objects and events appear to the observer, but it certainly does not imply a separate realm of mental contents, as if consciousness were a “substance enclosed upon itself” (Giorgi, 1983, p. 145). According to the phenomenological perspective, “subjectivity” is not understood as in opposition to “objectivity” but rather in terms of the “subject’s” activity as intentionally centred upon an object.

The views of Stumpf and other related views developed by Brentano’s disciples within the Graz circle can be summarized as follows (see Thinès, 1977). Firstly, they were concerned to establish a definition of mental phenomena which was not only epistemologically sound but also scientifically fruitful, and thus mark out a distinct field for psychology which would set it apart, to some extent at least, from other