GESTALT THEORY IN ITALY – IS IT STILL ALIVE ?

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In writing about the present status of Gestalt psychology in Italy, a reference to the picture of it recently published by Ian VERSTEGEN (2000) is a 'must'. He concludes his paper with the statement: "Psychology in Italy by the 1990s had been completely internationalised and 'Americanized'. There is no fourth generation of Italian Gestalt psychology of which we may speak". It is my impression that this last statement, although it may, in some sense, be true, is not altogether correct.

In order to understand the present situation, one must take into account how the institutional situation and the theoretical debate in Psychology have evolved since the time of MUSATTI's, METELLI's and KANIZSA's "schools" of Gestalt theory.

But first let me point out how lively still is the interest for Gestalt theory.

When, last October, I was asked to describe the situation of Gestalt psychology in Italy today, I thought I needed to interview various people, and that would have required a lot of time. So I sent around an e-mail saying that a meeting would be held in Padua in mid February on "The recent developments of Gestalt theory in Italy". More than twenty people answered the call for papers and a two-day meeting was held; the contributions will be published next spring. The large majority of the papers concerned visual perception, but some dealt with memory, language, social and ego psychology, as well as with general theoretical and logical structures of the theory. It is true that not all the participants considered themselves "orthodox" Gestaltists, but that depended mainly on what people thought that the term implied. As the proceedings of the meeting will be published in Italian, an article reporting the content of the various papers will follow. So here, I will give only a general and very personal impression of the actual situation of Gestalt theory in Italy, and one limited to the field of visual perception.

The institutional situation

As regards the institutional situation, quite a lot has changed since the 1950s-60s when the Gestalt school was clearly followed in Padova by F. METELLI, in Trieste by G. KANIZSA, in Bologna by R. CANESTRARI, and by C. MUSATTI in Milan. In spite of his disagreement with Gestalt theory about past experience, in his theorizing MUSATTI applied the phenomenological method and WERTHEIMER's principles of organization (these he considered as various aspects of a general principle of minimal differences or maximum homogeneity. MUSATTI, 1931). For many years these four professors were the only teachers of General Psychology in their Universities.

At that time psychology was an "optional" (not a "compulsory") course for de-

grees in Philosophy, Education and Medicine. This meant that teachers were few and the subject was taught in different degree courses in the different universities.

The professor was the director of an "Institute" by law (i.e. he was appointed to the "chair", and not elected by the other members of the Institute). As Director, he was responsible for the scientific rigour of the papers published by those working in his Institute. Usually the paper was amply discussed with the professor before obtaining his approval for publication. This is the reason why the professor's name appears at the head of all the papers one finds in the "Rivista di Psicologia" and other Italian journals of the time. This did not mean that all the papers had necessarily to adhere to the theoretical positions of the professor or to the subjects he taught. After all, MU-SATTI, who maintained the relevance of past experience in perceptual organization, sponsored the fully Gestaltist METELLI and KANIZSA for the chairs of Psychology in Padua and Trieste respectively. METELLI sponsored my first papers that were not in visual perception. KANIZSA's student, P. MEAZZINI became leader of a Behaviourist school in Italy, and was called by METELLI to teach in Padua when the degree course in Psychology started. This is just to show that theoretical disagreement did not keep you out of a job as long as there was sound experimental-scientific work. Of course the situation was not the same in every Institute; much depended on the attitudes of the professors themselves, and sometimes the professor's theoretical position conditioned the work of other members of the Institute.

As regards the 'international' quality of the work and papers in visual perception, in spite of the fact that they were written in Italian and some in French or German, it should be remembered that all Italian researchers could read English well, and knew the work of their American colleagues. CANESTRARI (1956), TAMPIERI (1959) and others all demonstrate the validity of this assertion. The point is that English had not yet become *the* "international" language in which to write about visual perception. And the impression at the time was that American colleagues (apart from language difficulties) were just not interested in Italian research. In 1935 D.M. PURDY published a paper entitled "The structure of the visual world..." which contained a well-documented review of MUSATTI's theoretical and experimental work. That paper went completely ignored, even by J.J. GIBSON in his books. The problem therefore was probably not only due to language.

In the 1970's a degree course in Psychology was started in Padua and Rome with large numbers of students (at that time there was no limit on the numbers of students admitted to the University after secondary school). The number of teachers for the various branches of psychology increased in proportion. Many were attracted to the new trends of Cognitive Psychology. To some it appeared as a rediscovery of various theoretical aspects of Gestalt theory, if not its obvious development. Many textbooks of General Psychology by American authors have been translated into Italian, in which Gestalt is briefly mentioned as a historical theory regarding visual perception.

During the eighties and nineties the Institutes were transformed into Departments with Chairs in nearly all the various fields of psychology. All the members, including the representatives of the administrative and technical personnel, elect the Director, but he/she no longer has any power to make pronouncements on the work and publications of the members. The anonymous referees of the international journals who evaluate the papers, which have to be written in English, have taken over this function. Nowadays you obtain money for research on the basis of the "impact factor" of the Journal in which your previous work has been published. With approximately the same criteria you obtain a job at the University. So, the "academic power" over publications has been transferred from the Director of the Institute to anonymous referees. But, who are these anonymous referees? A colleague has recently summarized the situation as follows: considering that no European journal can survive economically if it does not also sell in the States - and in order to do so, it must have American referees – one can easily conclude that the large majority of referees are American. And the theoretical winds blowing in the States are extremely important, if you want to publish in "International Journals" with "high impact factor". With anonymous referees you cannot discuss your paper, because often it is refused straight out, if it does not smell of accepted theory; sometimes for the most absurd reasons. As many well known referees act for various journals, one has the impression that they do not read the papers but, having had a look, simply ask somebody in the lab: "Have a look at this paper and refuse it"

As long as you present your new phenomenon, or an old one with new variations and measurements, leaving out the theoretical implications, all will be O.K. and the paper will easily be published. There are numerous publications of this type in international journals by young Italian researchers.

All this is obviously a caricature of the actual situation, but like any caricature it contains a seed of truth, in spite of the fact that there are still a number of American psychologists who deal quite objectively with Gestalt theory or may even call themselves Gestaltists.

The situation sketched above has undoubtedly contributed to the impression: "There is no fourth generation of Italian Gestalt psychology of which we may speak".

In recent literature a lot of papers have appeared that criticise Gestalt explanations of a phenomenon in favour of a probabilistic explanation. But I can hardly remember a single paper that criticises a probabilistic explanation in favour of the Gestalt. Has the Gestalt nothing to say? However, if, as CHATER (1996) maintains, the "most simple" is also the "more probable", one would expect either no further discussion on this question, or at least some papers criticising the probability principle, and not only on the basis of a "description" of a percept based on the minimum principle (HELM, 2002).

I know of no young Italian researchers, heirs of F. METELLI, G. KANIZSA, P. BOZZI, G.B. VICARIO or even W. GERBINO, whose work adheres to the popular new versions of empirical theories, such as the "likelihood principle", "generic viewpoint", "non-accidental features" or "probability". Bayesian probabilities may be very useful for inferring what we perceive for the computations of computer vision, but they appear to be based on assumptions against which present day Italian students of perception have been immunized.

Let me give just one example of how "prior probabilities" are estimated in a recent

paper by BURNS (2001). The probability of perceiving any drawn angle as a right angle is obviously given from the high probability of having encountered right angles in the environment. But there is also a strong probability of lines of equal length.

"Unlike the case of 90° angles (generated by carpentry and gravity), there are no obvious regularities that systematically generate lines of a specific 3D length. However, a force that generates a 3D length Lb at one location and time in the world is more likely than chance to generate an equal length Lc = Lb at a nearby location and time. Thus, the potential for a common cause (see ROCK 1983) suggests a prior pick for the property Lb = Lc." (BURNS, 2001, p. 1257)

The author goes on to state that the high probability of right angles in conjunction with equal lines is supported by psychophysical data obtained by various authors. These data show that crosses and parallelograms are typically perceived as having 90° 3-D angles and equal 3-D length. Analogous evidence also supports the high probability of perceiving 3-D angles as equal, even when they are not 90°, in spite of the fact that, like the equal lines, they are not easily encountered in the environment.

We have here a high probability of frequently encountered objects, such as right angles, and a high probability of rarely, if ever, encountered environmental objects, such as equal lines or equal non 90° angles! To avoid the evident logical contradiction an "ad hoc" hypothesis in the form of a mysterious force is introduced. Moreover, the validity of the assumption of a high probability of rarely encountered objects, that should explain what we perceive, is demonstrated by what we perceive. It is an "explanandum" that explains itself. (*How is it that the tight-rope walker doesn't fall off the rope? Because he is hanging on to the pole! But why doesn't the pole fall? Because the tight-rope walker is holding it up.* METZGER, 1963).

Apart from the difficulties of publication my impression is that young Italians students of visual perception, descendants of the above-mentioned schools of Gestalt, will not bother to reply.

The epistemological and theoretical debate

The idea that Gestalt theory was born only of the "fathers" WERTHEIMER, KOFFKA, KÖHLER, METZGER, LEWIN, and died with them is fairly widespread and is well illustrated even in the title of a meeting held some time ago in Italy: "L'eredità della pscologia della Gestalt" (The Heritage of Gestalt Psychology) (KANIZSA and CARAMELLI, 1988). The term 'heritage' reminds us of what the dead have bequeathed to their successors. As F. METELLI and G. KANIZSA are still considered the "fathers" of Gestalt in Italy, it came as somewhat of a surprise that one of the editors of the proceedings of that meeting was KANIZSA himself!

As I personally do not consider Gestalt theory as dead, I prefer to call the above meeting: "Recent developments in Gestalt theory". Strictly speaking a scientific theory cannot be considered dead until it is disproved or a more adequate explanation of the phenomena under investigation is proposed. And I am not prepared to consider the explanation of perceptual phenomena in terms of probability, as illustrated in the example reported above, as more adequate than that offered by Gestalt theory. For the present purposes Gestalt theory is still alive.

The fathers of Gestalt theory had to face certain opponents on problems that were under debate at their time. Today the opponents are others and somewhat different the problems at issue. Moreover, some concepts can be more precisely defined as the consequence of internal debate, new discoveries, more sophisticated methodology, etc. In this sense a scientific theory can develop or evolve, yet maintain the same basic structure.

During the 70s and 80s the theoretical debate also evolved. The debate "learnedinnate" as formulated by MUSATTI and KANIZSA, is no longer acceptable, as even "probability" supporters will admit that probabilities might be "internalised" during evolution. From the early 50s METELLI used to maintain in his teaching that the problem "innate-learned" is indeed a problem, but it provides no explanation of how the visual system works. So, given that the "regularities" of the world have been "internalised" (SHEPARD, 1984) during evolution, the problem will concern how they have been internalised. Could the internalisation take place in terms of probabilities or in terms of an "object hypothesis"? At the time I felt that the study of animal behaviour might yield some answers. If newborn chicks perceive anomalous surfaces, such as KANIZSA's triangle, is the process "top down" or a higher mental function such as an "object hypothesis"? (ZANFORLIN, 1981; VALLORTIGARA and ZANFORLIN, 1990).

For some students of the Gestalt school, J.J. GIBSON's theory of "information pick up" (GIBSON, 1979) and MARR's (1982) emergent computer vision theory gave rise to further debate. For example W. GERBINO (1988), one of KANIZSA's students, felt unable to accept KOFFKA's (1935) assertion that if perception was veridical, it did not imply a problem (i.e. the problem that computer vision is still facing in building a visual system capable of veridical perception). In the same article he supported GIBSON against KOFFKA, with regard to the problem as to whether the points forming a cross are totally unrelated stimuli; the points, he believes, have a geometrical relation; i.e. there is structure in the optical array. Contrary to GIB-SON but in agreement with MARR, he maintains that the "operation" of the visual system should be analysed and specified (it appears to have escaped GERBINO's notice that for MARR, as EPSTEIN (1994) pointed out, retinal stimulation does not present itself as an "organised structure" and that the environmental regularities that MARR used to construct his "primal sketch" are analogous to the Gestalt principle of grouping). The problem of "ecological validity" in perceptual organization is also discussed in support of the Gestalt by Nicoletta CARAMELLI (1994). It appears to me that in that article GERBINO was confusing the relationships and regularities of the objects in the geographical environment (KOFFKA, 1935; KÖHLER, 1947) with the structure of the proximal stimuli. But it is also true that neither KOFFKA nor KÖHLER spent many lines on the problem of the correspondence between geographical and the phenomenological environments; they were more interested in pointing out that this correspondence was "very incomplete" (KOFFKA, 1935 p. 376). On the other hand, the logical consequence of completely veridical perception is that drawn by GIBSON; it does not lead to a psychological problem, all we have to do is study the geometry of the environmental "invariants" of the optical array that contain all the information.

As a consequence, for GIBSON visual illusions are not worthy of study since they are due to "limited information"; i.e. the exact opposite of what METELLI (1982, 1989) and ZANFORLIN (1989) maintain. As any science arises from a problem, the problem of visual perception would never have been posed, had there been no visual illusions or other non-"veridical" perceptions, until some engineer came along and started to build a project for a visual machine.

That GIBSON posed a problem for followers of the Gestalt school is reflected by the title of the talk presented by Nicola BRUNO, a young lecturer and student of GERBINO at the above mentioned recent meeting: "Da KOFFKA a BOZZI attraverso GIBSON".

Paolo BOZZI, after METELLI and KANIZSA, was one of the most stimulating thinkers of Italian psychology. Sadly, he died last year and this has been a great loss for Italian culture.

Some people consider BOZZI's theoretical position as non-Gestalt, because he and others prefer to talk about "Experimental Phenomenology". But if one reads BOZZI's papers carefully, for example the one on the "falsificatori potenziali e teoria della Gestalt" (potential falsifiers and Gestalt theory, BOZZI, 1985), one finds that BOZZI was a staunch supporter of Gestalt theory. What he does in that paper is to point out the "acritical" use of concepts such as "stimuli" and "processes". BOZZI states:

"When we talk about the properties of stimuli, we mean the results of some measures and/ or operations that we have performed on the phenomenological fact under observation. In the end, the fact itself is no more phenomenological than physical, it is simply a fact that allows itself to be observed, where we see the place where to take the measurements" (BOZZI, 1985, p. 126, 127, *my translation*).

As regards processes he writes:

"... What exposes Gestalt theory to the accusation of non-falsifiability, is the frequent and bad use of the isomorphism postulate. At times it ceases to be a postulate and becomes rather a kind of "virtus dormitiva". The latter acts in such a way that the facts of perception are as they are" (i.e. that it does not explain anything).

Isomorphism, he says

"...is a message to the physiologist: if you do not find something exactly so, you cannot say that you have found the "physiological" explanation of that perceptual fact: search for it, it must be there". (Exactly the same opinion was expressed by METELLI, 1982).

BOZZI goes on:

"Isomorphism also serves to give logical form to certain results of the phenomenological analysis; to see if in principle such a form may apply also to other facts and results".

This article, first published in 1985, was later included in his book "Fenomenologia sperimentale" (BOZZI, 1989).

BOZZI was not interested in physiological explanations and strongly criticised the current logic of the neuronal chain of events as inadequate to explain the phenomena.

In spite of the fact that BOZZI insisted that experimental phenomenology should be considered an "independent science" able to explain phenomena "iusta propria principia", I am not very clear as to how independent it is of Gestalt theory. However, all BOZZI's experimental research is strongly "Gestalt oriented", as METELLI would have said. Both METELLI and KANIZSA considered isomorphism as a postulate and a possible logical construct, but they were not interested in it and never used it in their research; "... surely there must be something there..." was the attitude. I consider these positions as a more precise definition of certain concepts rather than a critique. Although later on BOZZI claimed that in experimental phenomenology, it was optional to consider oneself a "naïve realist" or a "critical realist", he had a slight preference for the former (BOZZI, 2002). To me he did not appear to be a naïve realist in J.J.GIBSON's sense, but a realist closer to METZGER's (1963) refutation of the "eleatic assumption" (i.e. that only what is rational is real).

Another relevant aspect of BOZZI's analysis of phenomenological investigation is the method of "shared observation", namely the reports and discussion among different people observing the same phenomenon. This is when one realizes that other people perceive the same object that I perceive as the only possible way of discussing the properties of the object. This method appears to be the logical consequence of the analysis of the problem of scientific validity of "observed fact" as "objective phenomena". It is evidently in complete opposition to Behaviorism and certain "cognitivist" authors, who still consider perception of an external object as "subjective" or as a mental "description" of the world (BOZZI, 1989, 1993). But it is impossible to do justice to BOZZI's complex work in a few lines so, it is best to consider these lines as just a "miniature" of his theoretical position with all the limitations of a miniature.

Very similar is the position of Giovanni Bruno VICARIO (1993), but with a distinction. He too considers physiology and phenomenology as two independent sciences, physiological explanations are considered as "reductionistic" and non-adequate. Phenomena should be explained "iusta propria principia". But he also points out certain limitations of phenomenology as a psychological science. "Since we cannot deny that memory, habits, motives, and so on, pertain to psychology, and since all these facts are inaccessible to the phenomenological method, we have to conclude that this method cannot cover all psychological objects of study. Because of this, it cannot be the only method of psychological inquiry" (VICARIO, 1993, p. 208). Moreover, with perceptual phenomena we do not have "cause and effect" as in any other science. For example, in the case of METELLI's transparency, VICARIO states: "the transparent surface is seen as unitary, but the possibility of seeing multiple adjacent regions as a unitary surface is grounded on the possibility of seeing this surface as transparent" (VICARIO, 1993, p. 209). See also the following Gestalt oriented discussion by VALLORTIGARA and ZANFORLIN, 1993).

BOZZI, VICARIO and GERBINO, who have all been students of KANIZSA, appear to have played the same role of "challenging the father" that METELLI and KANIZSA played to MUSATTI, but in a different way. It seems to me that, in addition to epistemological and philosophical considerations, the recent developments in neural physiology have also played a role in this trend towards "pure phenomenology". Various physiologically oriented psychologists have attempted to explain perceptual phenomena on the basis of "lateral inhibition", "spatial frequency receptors", "limited aperture of movement receptors", etcetera. These processes appeared as irrelevant explanations of complex perceptual phenomena. However there are some (for example MECACCI, 1988) who maintain that physiologists cannot avoid calling themselves Gestaltists - an attitude supported by more recent investigations in Italy by C. CASCO (1999).

Among the students of Metelli, who are still working in visual perception and proclaim themselves Gestaltists, there is Osvaldo DA POS (1989, 1999, 2002) mainly interested in color vision, Elisabetta GYULAI (1999), and myself interested in animal and human perception. Another of METELLI's students is Sergio MASIN, interested in visual perception and psychophysics. He has recently published a very interesting analysis of the relationships between the concepts of "phenomenal real-ity" and "physical reality as hypothetical constructs" (MASIN, 1989).

As regards "pure phenomenology", (where phenomena should be explained only by observable facts, or "iusta propria principia") he points out that it cannot explain the appearance of "phenomenal objects" (for example, in the case of the same proximal stimulus producing two different percepts one after the other) without resorting to non-observable phenomena, such as the hypothetical processes of the visual system (MASIN, 2002). On the other hand he considers physiological explanations as not adequate until relationships between physiological events and quality (e.g. colour, size, etc.) of the percept can be defined (MASIN, 1989, 1993). Moreover, criticizing KÖHLER's isomorphism he states: "KÖHLER considered transphenomenical (non observable) entities as factually existent and not as hypothetical constructs. If perceived things and their direct brain correlate share structural properties, then these things and their correlates should reasonably share other properties as well, for example colour. If this were true, then some brain parts would be coloured. KÖH-LER seemed aware of this absurdity because he suggested that chemical reactions are the direct brain correlate of colours and, at the same time, incongruously negated that colours coincide with these correlates" (MASIN, 1993 p. 61).

Here in MASIN, we have a theoretical position similar to that of KANIZSA, BOZZI and VICARIO, but with a difference. MASIN points out that precisely what they mean by their motto "iusta propria principia" does not appear to be very clear. Does experimental phenomenology allow the so-called "non observable" as hypothetical constructs to explain the phenomena? If not, then, as MASIN states, experimental phenomenology cannot explain the appearance of different phenomenal objects produced by the same stimuli.

I believe that there is some misunderstanding about the motto that phenomena should be explained by observable facts or "iusta propria principia". When ZAN-FORLIN and VALLORTIGARA (1993) remarked that the motto is not very clear, VICARIO's answer was: "... if there is a need for logical constructs to explain phenomenal experience, then the terms connected with the formation of logical constructs also have to be phenomenal... For example, let us consider the explanation of planetary motion in physical terms. We form our logical constructs by connecting physical terms, such as places, times, masses, accelerations, and so on." (VICARIO, 1993 p. 216) It is interesting to observe that of the physical terms mentioned, he left out the key term that connects them all, *gravity*. Gravity is a "non observable" entity even in physics, as only its effects can be observed. It is obviously a logical construct analogous to the non-observable brain processes. However, if the "non-observable"

are allowed as an explanation in physics, they should also be allowed in phenomenology. If this is the case, I do not see how we can consider experimental phenomenology as distinct from Gestalt theory. It may be that present day physiological theories of brain function are inadequate to explain phenomenal experience. In the future they may be subverted in such a way that the relationships between brain function and phenomena appear more clearly. Meanwhile we can go along with Vicario doing very similar phenomenological research, with the difference that I like the idea of "non observable" brain processes, while keeping an eye on what is happening in physiology.

However, from what BOZZI said above, isomorphism is allowed as a hypothetical construct even in experimental phenomenology, see also SAVARDI and BIANCHI (2002). Moreover, as R. LUCCIO (2003) reports, one of KANIZSA's last interests was in "self organizing processes". He too, therefore, it would seem, was not against suggesting "non observable processes".

Riccardo LUCCIO, who is now in Florence, has been a friend and a collaborator of KANIZSA's. With KANIZSA he criticized the concept of Gestalt as a "tendency to simplicity" (KANIZSA and LUCCIO, 1985); a discussion somewhat similar to KANIZSA's previous article "the Gestaltists error" (KANIZSA, 1979), the purpose of which appeared rather to define more precisely certain Gestalt concepts than to refute them. LUCCIO is now a supporter of the idea that Gestalts are "dynamic non-linear phenomena" like synergetic process. He still considers both himself and KANIZSA as Gestaltists (LUCCIO, 2003).

Another topic of discussion arose from the assertion by POMERANZ and KUBOVY (1986) that while HELMHOLTZians do "experiments" the Gestaltists do "demonstrations". VICARIO (1993) maintains that to manipulate "phenomenal objects" and describe the results means doing experiments. After all "private" or subjective, brain processes are involved both in describing a phenomenon and in answering by pressing a key. What is important is the repeatability of the phenomena. Whether the observation is made simultaneously by various observers as in the case of BOZZI's "intersubjective observation" or by various "subjects" in different moments, does not make any difference to repeatability. When the Gestaltists use a display, a "demonstration", as a "rhetorical trick" to sustain some point, they have usually done a series of experiments to establish the best conditions that produce the phenomenon. Although Gestaltists use accurate descriptions of the phenomenon as their primary method of analysis, they also use psychophysical methods to quantify the "strength" of a particular effect. This method, as AGOSTINI et al. (2002) has pointed out, has some drawbacks. The method usually involves a comparison with some aspect of the phenomenon, for example the brightness of a spot, with some standard that is in a different context. This implies, to some extent, a modification or alteration, of the phenomenon either because the presence of the standard modifies the general context, or because observer focuses too narrowly on the particular spot thus decreasing the effect of the context that produced the phenomenon.

Experimental phenomenology today has become a catch-word with its manuals such as BOZZI's "Fenomenologia sperimentale", or "Fenomenologia della percezione visiva" by Manfredo MASSIRONI. But, were it not for the refutation of KÖHLER's isomorphic fields as "real brain entities" but acceptable as hypothetical constructs, (after all KÖHLER's isomorphism was not that of WERTHEIMER, see LUCHINS and LUCHINS, 1999), I cannot see how it differs from Gestalt. They accept METZGER's refutation of the "eleatic postulate", and they use the phenomenological method of investigation and basic Gestalt concepts.

Moreover, if we consider the work of many younger researchers in visual perception, previous students of METELLI, KANIZSA, BOZZI and VICARIO, for example: GALMONTE and AGOSTINI (1999) on "belongingness", BRESSAN (2001) on brightness, or ZAVAGNO's (1999) new glare effect, in their research they use the phenomenological method and the basic concepts of Gestalt theory. The same can be said for several young researchers in visual perception too numerous to be mentioned here. The complete list of all the students of METELLI, KANIZSA, BOZZI, VICARIO, MASSIRONI, ZANFORLIN, was presented at the above-mentioned meeting by D. ZAVAGNO and R. ACTIS GROSSO.

In spite of all the discussions and individual differences in the attitudes towards physiology and mental constructs, Gestalt theory remains, in Italy, the paradigm of reference and the source of the basic concepts for numerous young students of visual perception. Their Gestalt background or their present theoretical Gestalt position may not be so evident in international journals, as rarely can the general theoretical implications of their experimental results be discussed in those journals. In this sense they have been "Americanized".

Summary

At international level Gestalt theory in Italy appears to have disappeared after the death of its most influential followers F. METELLI and G. KANIZSA. To show that this is not true and as evidence that Gestalt theory is still alive in Italy, more than twenty papers were presented at a meeting held last February in Padua entitled "Recent developments of Gestalt theory in Italy". In considering why young researchers today do not appear to call themselves Gestaltists, two main factors are suggested: i) the changes in institutional organization that has transferred "academic power" over publications from the Directors of the Institute to "international referees" of non Gestalt orientation; ii) the internal debate among Gestalt oriented researchers, "descendants" of METELLI and KANIZSA, that has led some of them to prefer the term "Experimental Phenomenology". From their writings it emerges that they seem to be closer to WERTHEIMER's position rather than KÖHLER's. They consider physiology and phenomenology as two independent sciences and are not interested in physiology. But there are also those who believe that it is possible to demonstrate a parallel between isomorphic physiological processes and phenomena. In any case, leaving aside individual differences, all the young researchers use Gestalt concepts and phenomenological methods of investigation. Gestalt is still the main theory of reference for many young researchers and if it does not appear so evident from abroad, this is simply because, often, they do not discuss the general theoretical implications of their experimental results.

Zusammenfassung

Auf internationaler Ebene mag der Eindruck entstanden sein, als wäre die Gestalttheorie in Italien mit dem Tod ihrer einflußreichsten Vertreter F. METELLI und G. KANIZSA verschwunden. Um zu zeigen, daß dies nicht zutrifft, und als Beleg dafür, daß die Gestalttheorie in Italien nach wie vor sehr lebendig ist, wurden bei einer Tagung unter dem Titel "Aktuelle Entwicklungen der Gestalttheorie in Italien" in Padua im Februar 2003 mehr als zwanzig Arbeiten vorgestellt. Zur Frage, warum sich junge Forscherinnen und Forscher heute meist nicht explizit als Gestalttheoretiker bezeichnen, werden im vorliegenden Beitrag zwei Faktoren als wahrscheinlich maßgeblich herausgearbeitet: 1) die institutionellen Veränderungen, die die "akademische Macht" über die Publikationsmöglichkeiten von den Institutsvorständen zu "internationalen Begutachtern" verschoben haben, denen die Gestalttheorie fremd ist; 2) die interne Diskussion unter gestalttheoretisch orientierten Forschern, "Nachkommen" von METELLI und KANIZSA, die bei einigen von ihnen dazu geführt hat, daß sie nun die Bezeichnung "Experimentelle Phänomenologie" vorziehen. Aus deren Arbeiten kann man schließen, daß sie sich den Positionen WERTHEIMERs näherstehend sehen als denen KÖH-LERs. Sie betrachten Physiologie und Phänomenologie als zwei voneinander unabhängige Wissenschaften und sind an der Physiologie nicht interessiert. Daneben gibt es aber andere, die davon überzeugt sind, daß sich eine Parallele zwischen isomorphen physiologischen Prozessen und Phänomenen zeigen läßt. Von gewissen individuellen Unterschieden abgesehen verwenden jedoch alle diese jungen Forscherinnen und Forscher gestalttheoretische Konzepte und phänomenologische Untersuchungsmethoden. Die Gestalttheorie ist nach wie vor für viele junge Forscherinnen und Forscher in Italien der hauptsächliche theoretische Bezugsrahmen. Wenn dies für Beobachter außerhalb Italiens nicht immer umittelbar erkennttlich ist, so liegt das einfach daran, daß diese Forscherinnen und Forscher die allgemeinen theoretischen Implikationen ihrer experimentellen Arbeiten und Forschungsergebnisse oft nicht explizit thematisieren.

References

- AGOSTINI, T. RIGHI, G. GALMONTE, A. (2002) Fenomenologia sperimentale in laboratorio. In: S.C. MASIN (a cura di) "I fondamenti della fenomenologia sperimentale". *Teorie e Modelli*, VII, 2-2: 129-125.
- BOZZI, P. (1985) Falsificatori potenziali e teoria della Gestalt. In: W. GERBINO (ed.) Conoscenza e struttura. Festschrift per Gaetano Kanizsa. Il Mulino, Bologna
- BOZZI, P. (1989) Fenomenologia Sperimentale. Il Mulino, Bologna
- BOZZI, P. (1993) On some paradoxes of current perceptual theories. In: S.C. MASIN (ed.) Foundation of Perceptual Theory. Amsterdam, North-Holland. Pp. 183-196
- BOZZI, P. (2002) Fenomenologia sperimentale. In: S.C. MASIN (a cura di) "I fondamenti della fenomenologia sperimentale". *Teorie e Modelli*, VII, 2-2: 13-48.
- BRESSAN, P. (2001) Explaining lightness illusions. Perception. 30(9): 1031-1046
- BURNS, K. J. (2001) Mental models of line drawings. Perception, 30: 1249-1261.
- CANESTRARI, R. (1956) Osservazioni sul fenomeno del trapezio ruotante. *Rivista di Psicologia*, **50**: 3-22.
- CAPUTO, G. and CASCO, C. (1999) Visual evoked potential (VEPs) and the Gestalt principle of goodcontinuation. In: : ZANFORLIN, M. and L TOMMASI, *Research in perception*. Padova, Logos.Pp. 187-191.
- CARAMELLI, N. (1994) Gestalt theory and the "ecological validity" question. In: POGGI, S. (ed.) Gestalt Psychology: its origins, foundations and influence. Firenze, Olschki. Pp. 191-207.
- CHATER, N. (1996) Reconciling simplicity and likelihood principles in perceptual organization. *Psychological Revew*, **103** (3): 566-581.
- DA POS, O. (1989) Trasparenze- Transparency. Milano, ICONE.

- DA POS, O. (1999) The perception of transparency with chromatic colours. In : ZANFORLIN, M. and L TOMMASI, *Research in perception*. Padova, Logos.Pp. 47-68.
- DA POS, O. (2002) Priorità della fenomenologia sulla fisiologia e sulla fisica nello studio dei colori. In: S.C. MASIN (a cura di) "I fondamenti della fenomenologia sperimentale". *Teorie e Modelli*, VII, 2-2: 103-120.
- EPSTEIN, W. (1994) "Why do things look as they do?": What Koffka might have said to Gibson, Marr and Rock. In: POGGI, S. (ed.) *Gestalt Psychology: its origins, foundations and influence*. Firenze, Olschki. Pp. 175-189.
- GALMONTE, A. and AGOSTINI, T. (1999) Perceptual belonginess and spatial propagation of lightness contrast. In: : ZANFORLIN, M. and L TOMMASI, *Research in perception*. Padova, Logos.Pp. 201-204.
- GERBINO, W. (1988) Due idee di Koffka. In: KANIZSA G. and CARAMELLI, N. L'eredità della Gestalt. Bologna, Il Mulino. Pp. 147-164.
- GIBSON, J. J. (1950) The Perception of the Visual World. Boston, Houghton Mifflin.
- GIBSON, J. J. (1966) The Senses Considered as Perceptual System. London, G. Allen & Unwin Ltd.
- GIBSON, J. J. (1979) An Ecological Approach to Visual Perception. Boston, Houghton Mifflin
- GYULAI, E. (1999) The priority of global aspects on visual perception: some observations on phenomenal identification of moving stimuli. In: : ZANFORLIN, M. and L TOMMASI, *Research in perception*. Padova, Logos.pp.229-232.
- HELM van der, P. A. (2000) Simplicity versus likelihood in visual perception: from surprisals to precisal. *Psychological Bulletin*, 126 (5): 770-800.
- KANIZSA, G. and CARAMELLI, N. (Eds.) (1988) L'eredità della Gestalt. Bologna, Il Mulino.
- KANIZSA, G. (1979) The Gestaltist's error and other expectations errors. In : G. KANIZSA, Organization in Vision. New York, Praeger. Pp.72-91
- KÖHLER, W. (1947) Gestalt Psycholgy. N. Y., Liveright Publ. Corp. Italian translation: "la psicologia della Gestalt". Milano, Feltrinelli, 1961. p. 130.
- KOFFKA, K. (1935) Principles of Gestalt Psychology. N. Y., Harcourt, Brace & World, Inc. p. 376
- LUCCIO, R. (2003) The emergence of pragnanz: Gaetano Kanizsa legacy. Axiomathes, 13: 365-387.
- LUCHINS, A. S. and LUCHINS, E. H. (1999) Isomorphism in Gestalt theory: Comparision of Wertheimer's and KÖHLER's concepts. Gestalt Theory, 21(3): 209-234.
- MARR, D. (1982) Vision. San Francisco, Freeman.
- MASIN, S. C. (1989) Analisi del mondo reale- Saggio sulla teoria della percezione. Padova, Liviana Editrice.
- MASIN, S. C. (1993) Some philosophical observations on perceptual science. In: S.C. MASIN (ed.) Foundation of Perceptual Theory. Amsterdam, North-Holland. Pp. 43-73.
- MASIN, S. C. (2002) Il problema della comparsa degli oggetti fenomenici. In: S.C. MASIN (a cura di) "I fondamentid ella fenomenologia sperimentale". *Teorie & Modelli*, VII, (3-3): 121-128.
- MECACCI, L. (1988) Percé non possiamo non dirci gestaltisti in neurofisiologia. In: KANIZSA G. and CARAMELLI, N. *L'eredità della Gestalt*. Bologna, Il Mulino. Pp. 203-224.
- METELLI, F. (1982) Some characteristics of Gestalt-oriented research in perception. In: J. BECK (ed.) "Organozation and Representation in Perception. Hillsdale, N. J., L. Erlbaun Ass. Pp. 219-234.
- METELLI, F. (1989) Funzione delle illusioni percettive nella ricerca. In: A. Garau (acura di) "Pensiero e Visione in Rudolf Arnheim". Milano, F. Angeli. Pp. 205-219.
- METZGER, W. (1963) Psychologie, Darmstat, Steinkopff. Italian translation. "I fondamenti della Psicologia della Gestalt". Firenze, Giunti.
- MUSATTI, C. (1931) Forma e assimilazione. Archivio Italiano di Psicologia, 9: 61-156.
- PURDY, D. M. (1935) The structure of the visual world: space perception and the perception of the wholes. *Psychological Review*, 42: 399-424.
- SAVARDI, U. and I. BIANCHI (2002) Una teoria (?) per i fatti e le relazioni. In: : S.C. MASIN (a cura di) "I fondamenti della fenomenologia sperimentale". *Teorie e Modelli*, VII, 2-2: 13-48.
- TAMPIERI, G. (1959) Movimenti fenomenici di allontanamento ed inclinazione in rapporto a differenze nelle condizioni di stimolazione. *Rivista di Psicologia*, **53**: 17-26.

- VALLORTIGARA, G., ZANFORLIN, M., CAMPOSTELLA, S.(1990) Perceptual organization in animal learning: cues or objects?, *Ethology*, 85, 89-102.
- VALLORTIGARA, G. and ZANFORLIN, M. (1993) On experimental phenomenology. Discussion. In: S.C. Masin (ed.) Foundation of Perceptual Theory. Amsterdam, North-Holland. Pp. 211-215.
- VERSTEGEN, I. (2000) Gestalt psychology in Italy. *Journal of the History of the Behavioral Sciencess*, **36** (1): 31-42:
- VICARIO, G.B. (1993) On experimental phenomenology. In: S.C. MASIN (ed.) Foundation of Perceptual Theory. Amsterdam, North-Holland. Pp. 197-219.
- ZANFORLIN, M. (1981) Visual perception of complex forms (anomalous surfaces) in chicks. *Italian Journal of Psychology*, 8 (1), 1-16.
- ZANFORLIN, M. (1989) Le illusioni ottiche nello studio della percezione visiva: fenomeni irrilevanti o nodi cruciali del problema? *Rivista di Psicologia*, 74 (2): 11-31.
- ZAVAGNO, D. (1999) Some new luminance-gradient effects. Perception, 28: 835-838.

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