

CONTINUA, ADJECTIVES AND TERTIARY QUALITIES

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Adjectives call for nouns
W. James, *Principles of Psychology*, 1890

1. Psychognostics

The aim of this essay is to direct attention to some structural problems of a *phenomenology of language* connected with a theory of the presentation and in particular of the perceptive presentation. More specifically, I shall propose a *preliminary analysis* of language, defined as a cognitive system, based on a *non-linguistic primitive* (the structure of the presentation) within a *figural* original semantic field. This field takes the form of a *grammar of primitive relations* in which syntax and semantics have yet to be separated. Here, in particular, I shall analyse only a minor part of it, and in particular the morphogenesis of adjectives on the basis of both experimental phenomenology and cognitive semantics.¹

I begin with a strong assumption: *there is no perfect language, nor is there a perfect science, without a perfect psychognostics.*²

'Psychognostics' is a term coined by Brentano to indicate a morphological and analytical description of experience, where by 'experience' is meant one or a series of *concrete* presentations; that is, presentations with a real psychic content directed towards an object of some kind. Examples of presentations are 'seeing a tree,' 'hearing a sound,' 'desiring an event,' 'imagining the solution to a problem,' 'planning an action,' and so on. In other words, psychognosticists analyse the components of consciousness and seek, exhaustively if possible, to identify their elements and the ways in which these elements are interconnected.

First of all, therefore, psychognostics concerns itself with the *phenomenal world* of perception. By 'phenomenal world' is meant a set of *observable* events; that is, events given to perception as they occur before our eyes: in short, whatever is seen, heard, touched, and so on. In other words, whatever is *experienced* in a *present duration*.

¹ I thank Manfredo Massironi, Ron Langacker and William Croft for the fruitful comments on a previous version of this paper.

² [Brentano 1982].

The guarantee of the indubitability of objects is given by the structure of the presentation, which has a certain duration that enables recognition of objects. If the presentation were instantaneous and unidimensional, in fact, we would find ourselves in a Machian universe made up of punctiform and unconnected instants; which although poetically fascinating as the world of Lucretius is substantially unsuited to construction of a theory of truth.

Simultaneously with the *indubitability* of the objects under observation, perception presents certain features of structural *incompleteness*. In fact, physically incomplete objects are not phenomenically such, just as illusory objects are not, either before or after this metrical verification; on the other side, ambiguous objects are such from the phenomenic point of view, but not from the physical point of view. As to the 'impossible' objects, they pertain to reality in its fifth meaning, in the sense of Metzger, where it has to be distinguished between phenomenically real objects and phenomenically apparent objects.³

From the point of view of phenomenological description, in fact, we live in a world made up of incomplete objects in movement or in stasis, which change qualitatively or in position, which are partially covered by others (as in the case of occlusion), sometimes illusory (as witness the figures of Zöllner or Müller-Lyer), often ambiguous (as in the figure of the young/old woman), and occasionally apparently impossible (like Frazer's illusion).

It therefore seems that even in the immediate concreteness of the *here and now*, in the brief duration of the psychic present, observable events manifest certain fundamental (and structurally opposed) features of reality:

- A. *presence and absence*;
- B. *identity and change*.

A. To adopt a definition proposed by Benussi, we may define as *present* the perceptive phenomena that we experience as given, as encountered, i.e. those that directly and physically impinge upon us. We may instead say that perceptive phenomena are *absent* if they are only mentally experienced as present. A present perceptive phenomenon is, for example, the computer on which I am writing or the photograph on the desk at which I now glance. An absent perceptive phenomenon is the memory of where and when the photograph was taken, or my still confused idea of the book which I plan to write.

Present perceptive phenomena constitute my *empirical reality* and comprise:

³ [Metzger 1941], ch. 1, § 15.

- a. *perceptive* data (immediately localizable in space);
- b. *introspective* data (more difficult to localize, e.g. temporal localization).⁴

Present perceptive phenomena constitute *representative states* in general and they are distinguished into:

- a. *indeterminate* data (those of the imagination, e.g. literary objects or my imagining of a scene other than the actual situation);
- b. *determinate* data (in memory, for example, the remembering of a face seen yesterday in the crowd, therefore a *past presence*).⁵

Also belonging to present perceptive phenomena are the phenomena of *amodal presence*, like Kanizsa's triangle, which is a phenomenal presence that does not arise in any specific sensory modality: an example being the segmentation of the perceptive field into figure and background where the background behind the figure is amodally completed. The figure, in its turn, possesses a rear which, although hidden from view, is equally *phenomenally* 'present' to the observer. The same applies to three-dimensional objects, which present an interior even though it is not visible. We do not doubt, for example, that behind the front facade of our Faculty there effectively lie staircases, lecture rooms, offices, the library; just as we do not doubt that the elegant clothes of the lady sitting next to us contain a human organism. These phenomena pertain to the type of the '*Schubladenexperiment*,' discussed by Boltzmann and Brentano, or to the Michotte's phenomena of 'persistence.'⁶

The forms of the amodal completion of empirical reality are part of *assimilative processes* – an example being the correct reading of a word which has been wrongly written – that is, forms of cognitive completion or integration which serve two purposes:

- i. *homogenizing* apparently contrasting phenomenal data;
- ii. supporting the concept of *empirical reality*.⁷

Finally, all the phenomena of empirical reality, whether perceptive or introspective, are given internally to an actual temporal structure (the moment-now) which constitutes some sort of window between the exterior and the interior, between perception and introspection.⁸

⁴ [Benussi 1913]. On this see [Albertazzi 1996b].

⁵ Cf. [Musatti 1926].

⁶ [Michotte 1962].

⁷ For the concept of 'empirical reality,' see [Musatti 1926].

⁸ [Albertazzi 1994].

B. As regards the *identity* of objects, we intuitively have the presentation of objects which change or persist in a sort of phenomenal identity and (multi)stability; that is, wholes with imprecisely defined *parts* and *boundaries*.⁹ I say 'imprecisely' because kinesthesia, operations of assimilation, contrast between figure and background, tendency to *Prägnanz*, and so forth, render the *immediately* 'geometric' or 'mathematical' perception of visual objects improbable. This is even more evident in the case of sound objects.

Moreover, our perceptions of empirical reality, that is, of differently coloured objects, ones differently hot or cold to the touch, sweet or bitter to the taste, of diverse duration, etc., are all *partial* and *qualitative* perceptions.

How does one pass from a set of qualitative objects (of the same and/or different kind) to *identification* of real stationary events, i.e. of objects? In fact, if we are to strip essential determinants (or, put otherwise, the *material constants* of perceptive phenomena) of all accretions, according to a correct psychognostics we must summarize them in:

1. temporal determinations;
2. spatial determinations;
3. qualitative determinations (colour, tone, contactile sense).

In their turn, qualitative determinations are:

1. determinations of lightness and darkness;
2. determinations of colouring (or sonority);
3. determinations of saturation.

In short, whatever occupies space, in visual objects for example, is something which displays the difference between light and dark (it is light that creates the space, because the gradations of clarity are among the most efficacious) between coloured and non-coloured (therefore saturated) objects and ones coloured in one way rather than another.¹⁰ These are *local qualitative* differences and, to use a psychognostic expression, they are *pervading parts* of the perceptive *whole*.¹¹ Brentano called them 'conrescent' parts (from *conrescence*); that is to say, they are parts of a phenomenal whole which grow together and which can be separated only by abstraction.

In other words, any spatial *form* apprehended in a duration cannot be the object of perception without being *founded* on a perception of a *locus*. Likewise, a perception of colour must be founded on an extension. Locus and

⁹ [Bozzi 1969]; [Zimmer 1998].

¹⁰ [Gercke and Lau 1922]; [Ruhnau 1994].

¹¹ [Brentano 1982].

extension are the foundational objectualities of objects ontologically dependent on them.

Also the forms of events are founded on loci. Unlike colour and extension, however, loci and forms are *partially* independent, as demonstrated by the cases of formal plurivocity analysed by the Meinong school's theory of production. A particular figure, in fact, can be experienced on the basis of diverse groups of places: consider four dots arranged as the corners of a square but which can also be experienced as the structure of a cross or, more simply, Necker's cube.¹²

In the case of colours, however, no colour can present itself without extension, and vice-versa, but their bilateral dependence is defined with reference to variability.

We arrive at the perception of *objects* via the structuring of perceptive data into perceptive fields.

Perceptive data, in fact, allow themselves to be arranged into *classes*, according to groupings which are subject to constant transformation: we may say that (elementary) perceptive datum A is transformable into another (elementary) perceptive datum N when there exists a series of elements B, C, D,... such that each term of the series A, B, C, D,..., N is indiscernible from the one immediately adjacent to it and distinct from all the others. The data set of a perceptive field therefore forms a *perceptive continuum*. For example, a colour may become more or less red, or change from red to yellow via orange.¹³

The same applies to the categorial perception of sounds: for example, in the passage from the continuum of the *glissando* to identification of the individual notes as recognizable perceptive nuclei of sound.

In the same way, even when we say that one object is *more or less* clear, more or less cold than another, we are not referring to quantitative aspects, but to aspects which indicate an *order* within the continuous series and in which qualitative aspects of the same kind are amenable to arrangement.

In individual perceptive fields, moreover, transcategorial variation does not occur, so that a colour cannot change into a sound, a heat into a sweetness, and so on. Variation of degree is possible internally to each class, but not transformation.

More in general, therefore, the constitution of the objects under observation takes place internally to a *perceptive continuum* (multiple and multiform, Brentano would say) which is realized in a sort of *constant variation of the contents* (non-independent) of the presentation of the object. It was to this situation that Husserl was referring when he talked of *eidetic variation*: an

¹² [Brentano 1982]; [Meinong 1899]; [Benussi 1925]; [Musatti 1926].

¹³ [Ehrenfels 1899]; [Brentano 1892]; [Musatti 1926].

eidetic singularity is in fact every specific perceptual content within the variation of the structure of the object in question.¹⁴

In other terms, this is essentially also the gestaltist thesis, according to which, on the basis of a continuum of stimulatory activity, devoid of order and structure, the perception process creates an order through discontinuities. Discontinuities, in fact, produce phenomenic objects and make them distinguishable from the others. All the Wertheimer's laws of unification of the percepts and also movement perception are based on the property of the system to pick up and produce discontinuities in the stimulation, as in the case of Kanizsa's triangle.

The perceptive continuum (or the series of perceptive continua), however, can only be analysed on the basis of one (or more) particular specification(s) (being-thus) of a particular object (being-here); that is, on the basis of space, locus, colour, temperature, texture, granularity, etc. determinations of the objects under observation.

Another aspect of the identity of objects concerns their change, their appearance and disappearance, growth, deterioration, displacement, etc.

In our natural disposition, 'objects' are perceived as undergoing alterations. Morphogenetically, however, psychognostics shows that matters are more complicated than this: it is in fact the *perception of change* that is original, not change in the object. Laboratory analysis of the perception of simultaneity and succession demonstrates that the perception of *qualitative change* is prior to that of simultaneity and succession.

Apprehending a change, however, does not signify an ability to *note*, to distinguish the various *phases* of the process. For example, noticing the movement of an object in space, the dimming of a light, the strengthening of a sound, etc., is not already to perceive analytically the various successive phases of the phenomenon.¹⁵

This aspect concerns two types of different perceptive acts, in fact: the one directed to the apprehension of Gestalten, the other directed to the apprehension of connections and relations among the components of the perceived whole. To hear a melody as a whole, in fact, is not immediately to experience the relations among the notes, as musicians do. To simplify the connection, the psychology of relations considers transitivity in the following way: pieces → relations → Gestalt whole; while the psychology of form considers it as: Gestalt (pieces → relations) or (G = R) → pieces.¹⁶

¹⁴ [Husserl 1900-1].

¹⁵ [Wertheimer 1912] and [Köhler 1922]. On change as the primary configuration of the organization of the contents of consciousness see [Bonaventura 1929].

¹⁶ [Matthei 1929].

All these aspects were studied by the Meinong's school of Graz through the so called theory of production.

This also demonstrates that qualitative perception precedes every subsequent form of conceptualization of change in *movement* in terms of direction or speed. The impression of movement, in fact, stems from the combination of certain perceptive qualities, such as a wedge-shaped configuration (arrows, birds, aeroplanes, etc.), oblique direction (the sails of a windmill, the position of objects, etc.), shading (flapping flags, pedalling legs, etc.), and so on.¹⁷

A good psychognostics distinguishes among the qualitatively different aspects of actual perception. It distinguishes, for example, between *experiencing* and *noticing* (one may experience something without noticing it (indeed, our perceptive field is replete with things that we do not notice and which remain implicit unless attention is focused on them) and *fixing* whatever is noticed, or *being struck* by something (which has an emotional character), or *paying attention* to something (which is nonetheless a subsequent event), and so on. Verbs of vision like 'to see,' 'to look at,' 'to give attention to,' 'to investigate,' etc. are a clear examples of these differences. The perception of change is morphogenetically prior to all these aspects of plain perception.¹⁸

Change is an eminently qualitative aspect of reality. In fact, as Borges rightly points out, we do not say that the red which shades into orange in the sky diminishes quantitatively from 700 to 610 millicrons, at so much a second; we merely say that it shades, or more correctly that it is a *shading-red*.¹⁹ In the morphogenesis of actual perception, as we shall see, it is not 'verbs' or verbal parts of the percept that are original but '*adjectives*' (or substantivized adjectives) or adjectival parts of the percept; just as pure red, pure blue, the perfect circle or triangle are never given in actual perception, only reds of certain hue, circles of a certain size, points with a certain degree of sharpness.

Finally, in the perception of something that changes, an *order of precedence* is often perceived as phenomenal salience, as *greater intensity*: for example, one sound is perceived as louder than another. Two identical auditory stimuli fed to each ear arouse sensations of differing intensity solely because they are separated by a temporal interval much *lower* than the threshold of succession of auditory sensations. With these intervals we still perceive *continuous change*, but we recognize order in the actual phase of the presentation.

A particular feature of perceptive data, one which contributes to the formation of objects, concerns their *qualitative discontinuity* and their *fusion*.²⁰ In the perceptive field, in fact, there is a basic opposition between qualities

¹⁷ [Arnheim 1954], ch. 9.

¹⁸ For the concept of 'plain perception' see [Husserl 1936].

¹⁹ [Borges 1944].

²⁰ [Stumpf 1883].

which are locally fused and those which are locally separated according to a certain configuration, a certain boundary.²¹

Fusion involves constant variation internally to perceptive continua. For example, in the continuous passage from red to yellow via orange, fusion consists of a continuous variation in the degree of the quality. Conversely, the delimitation corresponds to a discontinuous variation which also constitutes the limit to variation in spatial extension.²² The limit or boundary of the 'red' is the *profile* of that shade of the colour marked out with respect to the background, and which displays certain characteristics like figure, cohesion, individuality.

One may also say that the spatial extension is occupied by a material substratum structurally organized by *morphological accidents* (the *boundary* and the *form*); that is to say, the spatial extension is occupied by the set of qualitative discontinuities. A shape is an example of *qualitative discontinuity on a substratum space*, to use an expression from Petitot's qualitative physics. Thus from both a phenomenological and ontological point of view, the shape constitutes a sort of *interface* between the perceiving subject and the outside world.

In conclusion, the analysis of the perceptive continua shows that the *temporal structure* of the events determines (i) their unity and their (ii) sensate connections; while the *changes of direction* or *speed* are relative to (a) the type of configuration and (b) they have expressive behaviour. In particular, the temporal structure exemplifies the character of proximity, good continuation, closure, etc., while the *kinetic configuration* express their specific structure. The last one, in static fields, would correspond to the characters of parallelism, curvature, etc., i.e. those characters which determine the type of objects (squares, circles, rectangles, etc.).²³

2. Qualities

Do first-order and second-order qualities exist? Further, do qualities more reliable than others exist? Democritus and Galileo had no doubts on the matter: weight, shape, size, position, motion, hardness are *primary qualities* founded on perception; tastes, sounds, odours are *secondary qualities* because they are subjectively connoted and because they do not refer to a specific mathematical and formal *model* of the external world.

²¹ [Husserl 1966b].

²² [Petitot 1979] and [1989].

²³ [Kanizsa and Vicario 1968], 69-127.

Psychognostics immediately attacks this certainty: extension, too, is a phenomenal quality of objects, if by phenomenal quality is meant a material constant of the objects under observation.

This phenomenal precariousness affects all the so-called primary determinations of objects – *movement* for example. In certain conditions of duration, in fact, we see perceptively present, *phenomenally real* movements directly before us, a case in point being stroboscopic movement, which is in fact wholly *unreal* from a strictly *physical* point of view.

Not to mention the determination of the *position* of objects, defined as the relationship among points in space. Phenomenally, all ambiguous figures undermine the above-mentioned certainty, as witness the cases of formal plurivocity analysed by Mach, by Benussi and by the classical Gestaltists. Consider the famous example of Necker's cube, although there are innumerable variations on the phenomenon which demonstrate that certain forms of *cognitive completion* are involved in the structuring and identification of the objects of empirical reality.²⁴

I said earlier that experiencing is not noticing, and that to notice is not to be immediately struck by something. In the passage from the one to the other qualitative aspect – morphologically distinct – of perception, are other qualitative determinations of the object involved? Indeed there are: the so-called *tertiary* qualities.

Tertiary qualities are figural qualities; that is, they are specific kinds of quality which belong to a *phenomenal whole* independently of the properties of its individual parts.²⁵ This simply means that once this type of whole has been formed, it cannot be broken down into its atomic parts without destroying it or changing it.

The characteristics of Gestalt formations are summativity and transposability. Transposability is the invariance of Gestalt during the simultaneous change of the pieces at their base. The transposability of intervals, as in the case of melodies, holds in the visual field too, as appears in Goethe's theory of colours or in the realm of the apprehension of sense, as Köhler's experiments on primates have shown.²⁶

Morphogenetically, then, when may we say that we perceive a phenomenal whole, or in other words, an object and not a bundle of sense-impressions?

Laboratory experiments by Benussi thoroughly explored the problem and singled out three distinct moments in the phase of presentation:

²⁴ [Kanizsa 1991]; on this see [Albertazzi 1996b].

²⁵ [Metzger 1941]. From a phenomenological point of view see [Albertazzi 1989], ch. 3.

²⁶ [Goethe 1974]; [Köhler 1918].

- (i) a critical phase characterized by a *perceptive presence*. In this phase the elements of the presentation are experienced in *sequential* order, as if they were part of a temporal process;²⁷
- (ii) a phase of *consecutive impression* (or of immediate memory). In this second phase, although *perceptively absent* the elements are perceived as present but in *mental simultaneity*, with *consecutive* order. In fact, the experience of the rapid succession of events is formed by a sequence of events which are all present together, like the notes of a melody. In cognitive semantics it is expressed by 'summary scanning;'
- (iii) a *mnestic* phase. In this third phase the elements are experienced as *memories*. The previous simultaneous whole of the second phase is now divided into its constitutive parts, according to a pattern *different* from that in which the elements actually followed one another in the critical phase (e.g. the sequence *a,b,c* may be remembered as *b,c,a*).²⁸

Benussi's results, furthermore, corroborate the above assumption that identification of objects requires (i) a *succession* in time, (ii) the *perception of a succession*, (iii), a *structure* which enables their attribution to a single delimited whole, i.e. a duration.

The figural qualities, as qualities pertaining to the whole, are involved in phase (ii) of the presentation. In fact, to refer once again to the most intuitive example, in order to grasp a melody it is not enough to retain the impression of its last three notes in the memory; what is required is the *impression of a series* (say, 7 +/- 2). Moreover, we perceive all the sounds in succession, but we apprehend them as simultaneous.²⁹

Ehrenfels, who coined the expression *figural qualities*, noted that the presentation of a melody presupposes a particular type of quality, in this case the figural quality 'sound,' which is a positive perceptive quality connected to the presence of *complexes of presentation*. These complexes are constituted by elements which can be presented separately one from the other (the individual

²⁷ When speaking of perception of order in a perceptive field, therefore, one should not consider it an act of interpretation, because the order mirrors what is given in the world in reference to the perceiver. Cf. [Koffka 1935], 175. On this see [Zimmer 1998]. In cognitive semantics it is expressed by 'sequential scanning.'

²⁸ The character of 'pastness' emerges when there is a hiatus between the actual and the consecutive (or secondary) presentness of a content and its simultaneous re-evocation in the actuality of another content. Cf. [Benussi 1913], ch. 1; [Bonaventura 1929], ch. 2.

²⁹ Another characteristic feature of this type of whole is its transposability, which testifies to the invariance of the structure.

notes) but which, taken analytically in themselves, would never summatively yield the figural whole.

Figural qualities are present in all our experience, but they are particularly evident in, for example, perceptive contents like ‘gaggle of geese,’ ‘herd of cattle,’ etc.³⁰

Figural qualities (at least according to Ehrenfels) are *really existent*. They are perceptive contents which derive from different perceptive, visual, acoustic, tactile, etc. fields.

Figural qualities can be distinguished into:

- (i) *non-temporal* figural qualities (i.e. when the base elements do not contain the temporal determination of the objects of presentation, examples being the relationship between luminous intensity and colour, or harmony and timbre in music). Here sight is primary;
- (ii) *temporal* figural qualities (when one element at most can be given in the momentaneous presentation, while the others are presented as retented images, as in the case of a melody). But also examples as to thunder, to shot, to crack, etc. as experiments in verbs perception show. Here hearing is primary;
- (iii) *spatial* figural qualities;
- (iv) *mixed* figural qualities (for example, movement has figural qualities which include both spatial and temporal diversifications like falling, rising, rotating, etc.); but also chromatic changes like to turn pale, to blush, to grow dark, to get inflamed, etc.³¹

A particular case of figural quality, whose theory is still to build up, is the case of perception of contradiction, as when we think of a ‘round square.’ Also in this case, in fact, there is a specific presented content, which in perception corresponds to the case in which two objects do not stay in the same container.³²

Further distinctions among figural qualities yield:³³

- (v) qualities to do with the *internal ordering of the elements* of a structure, like spatial form, pattern, grouping of the elements or distribution of weight, etc. Examples are the already-mentioned melody, rhythm and all those structures that relate to processes and changes. These qualities are expressed by adjectives like ‘round,’

³⁰ Cf. also [Husserl 1891], ch. 1, § 4. On this see [Albertazzi 1996b].

³¹ [Brentano 1907].

³² [Ehrenfels 1899].

³³ [Metzger 1986], § 8.4.

- 'sharp,' 'elliptical;' or by terms from the musical lexicon like 'crescendo,' 'glissando,' etc. Words like 'slip,' 'fall,' etc. are also terms which refer to this type of quality;
- (vi) *material* qualities of the whole regarding its texture and granularity. These qualities are expressed by adjectives like 'soft,' 'porous,' 'luminous,' 'hard,' 'flat,' etc.;
 - (vii) qualities of *dynamic structures* in the broad, even figurative, sense expressed by nouns such as 'attraction,' 'repulsion,' 'thrust,' 'jerk,' etc., as well as by their verbal modifications 'change,' 'disappear,' etc. This third type of figural quality is also important for understanding of the relationships among individuals and between individuals and their surrounding environment. It is therefore a type of quality which generally concerns expressive phenomena and the emotions. Music is essentially expressions of this type of qualities;³⁴
 - (viii) *essential* qualities, which are contraposed, so to speak, to the qualities that directly concern material data. Belonging to this fourth group are essentially two types of quality:

(a) The *expressive qualities* in the strict sense, like 'ethos,' 'sentiment of value,' 'atmosphere,' but also 'mood' (*Stimmung*), expressed by adjectives like 'friendly,' 'proud,' 'nostalgic,' but also 'masculine,' 'feminine,' etc.

This type of quality is usually, but erroneously, deemed to be a quality of the self, like sentiment. In fact, however, it lies midway between the object (or perceived event) and the perceiver and more properly concerns the effect or the action of the former on the latter.

(b) Authentic *sentiments*, which Cornelius terms the figural qualities of our inner experience or consciousness.³⁵

Since they are particular cases of the figural qualities, also sentiments have a structural correlate, which Klages has tried to define as the dynamic structures of the *inner order* of the *tension* (*Spannung*) of the thrust in the broad sense (*Antriebgestalt*) – for which he uses the term 'colouring,' thereby having it coincide with case (vii). In particular, in fact, they seem to express the general character of the stream of our actual presentations.

I have already said that in order to be apprehended, the tertiary qualities must be patterned into structures or into perceptive configurations, because

³⁴ [Köhler 1938]; [Michotte 1950].

³⁵ [Cornelius 1900]. Taken to its extreme, as in Lipps' *Einführungstheorie*, this theory considers all figural qualities to be sentiments.

they are qualities of the Gestalt whole. It is evident that there exist *similar* figural qualities in different perceptive fields. Consider, for instance, the similarity between a musical crescendo, daybreak, or a wait of increasing intensity.³⁶ Figural qualities are therefore *intermodal* because they express the same structure (e.g. acoustic and visual) and/or the same affective tonality in different perceptive fields.³⁷

The fact that the Gestalt whole is not reducible to the atomism of its constituent relations does not imply, however, that one can discern, internally to it, sub-units constituting the whole – like, for example, the ‘couple,’³⁸ the ‘direction of places,’³⁹ or ‘intervals’⁴⁰ in the case of melodies; but this holds in the case of the apprehension of contraries like big-small, good-bad, etc; although one should acknowledge that the individuation of *the moments of unity* constitutive of the whole, to use Husserl’s expression, has still not led to the development of a theory of similarity which takes analytical account of the type of holistic relation that characterizes Gestalt phenomenal formations.⁴¹

In the case of essential qualities, though, and specifically in that of expressive qualities, a theory explaining the nexus between perceiver and environment has been developed, first by Köhler and subsequently by Gibson.

Köhler elaborated the concept of intuition as the *immediate understanding* of the link between two or more parts of the perceptive, cognitive or emotional field.⁴² He pointed out that whatever perceptive field – external or internal – mental facts may derive from, they all belong to the phenomenal field in the broad sense. There is always a *functional link* between these facts and two or more elements of the field which takes the form of a *sensate connection*.

A sensate connection or a functional nexus among perceptive events is given by the phenomenic dependence between an antecedent and a successive, in the sense that the appearance of the former is apparently motivated by the appearance of the latter. This is evident, for example, in the case of the *brake-effect* and the *hurdle-effect* analysed by Minguzzi.⁴³

These connections are given intuitively and they display the following characteristics:

³⁶ [Metzger 1986], § 6.4.

³⁷ Cf. Köhler’s famous example (maluma, tàkete) in [Köhler 1948]. On this topic see [Vicario 1991], 246-7.

³⁸ [Husserl 1966].

³⁹ [Bozzi 1969].

⁴⁰ [Bozzi 1993]; [Vicario 1973]; [Albertazzi 1993], [1993] and [1996].

⁴¹ [Husserl 1966b]; [Rausch 1949] and [1951].

⁴² [Köhler 1929], 207-8. The concept of intuition is also elaborated in [Wertheimer 1945] and [Duncker 1926].

⁴³ [Minguzzi 1969], 161-97.

1. they cannot be explained by reference to prior experiences because even the first experience of this kind has a structure;⁴⁴
2. they are also present in complex situations;
3. they do not depend upon our imagination, and they are not a product of our will; in fact, they cannot vary as and how we wish them to (in this consisting the *origin* of the notion of *object*);
4. finally, they are of great importance in understanding the surrounding environment, and in particular of the social environment, since they concern an environment made up of *valencies* rather than geometric patterns.

This latter point introduces the second and typically *ecological* aspect of the tertiary qualities; an aspect analysed by Gibson. Gibson's 'affordances' are mainly tied to action and survival in the surrounding environment, and in this sense they are more restrictive than the original and more articulated class of tertiary qualities described by the classical Gestaltists. An example of an ecological quality *à la* Gibson is 'a surface.'

More in general, the ecological qualities are those that strike us immediately; they are invariant combinations of variables which we perceive as units, without distinctions among their individual components. According to Gibson, the plain sensations are already *directly and immediately* endowed with meaning. Although it is true that the ecological qualities move in two directions – towards the environment on the one hand, and towards the observer on the other – this is not to posit the existence of some sort of psycho-physical dualism between consciousness and matter. Gibson simply asserts that heteroperception is invariably accompanied by self-perception, and vice-versa.

3. *The morphogenesis of the expression*

Köhler devotes an entire chapter of his *Psychology of Gestalt* to the problem of the perception of the emotions, which he connects to the topic of expressiveness and hence to that of the tertiary qualities.

The basic postulate of Köhler's theory is the *isomorphism* among gestures, postures, tone of voice, attitudes, etc., and their corresponding mental states. Understanding of this connection, however, is neither empathetic nor behavioural; what actually occurs is a form of sensate, functional connection between postures and mental states based on an *similarity of structure*.⁴⁵ For

⁴⁴ [Köhler 1929], ch. 10.

⁴⁵ [Köhler 1929]; [Koffka 1963]; [Metzger 1941].

example, within a specific unit of time, comparison can be made between the number of changes in a Mozart crescendo and the growing expression of surprise and incredulity on a person's face.

In sum, just as we attribute specific qualities to the events of the phenomenal world (lightning is 'aggressive' and 'frightening' as it moves in a violent zig-zag, the quagmire is 'treacherous' because the texture of its surface is soft, etc.), these events are used to express human states of mind (a 'hurricane' of feelings, a 'cascade' of ideas, etc.), and this is because of a phenomenal *similarity* between the two types of structure.

Consider the case of a perceptive event in the laboratory, like a light against a dark background or a round object moving in the visual field. These 'perceptive events' have a certain magnitude, length, shape and velocity. They can move rapidly or slowly; they can pause, disappear and reappear, just as happens in the extended phenomenal field of our everyday lives, where we see objects (people, animals, things) appearing, running, stopping, disappearing behind a house, reappearing around the corner. When the structure of perceptive events is the same, it makes no difference whether human behaviour or the behaviour of observable entities in the laboratory is concerned: in fact, these are events happening in the so called atropic space of forces.⁴⁶

Moreover, a distinctive feature of expressive phenomena is the fact that, unlike from the functional connections, the origin of change of the kinetic state is experienced as *internal to the object* in movement. In this sense movement acquires an *intentional* character.

This does not happen in other fenomenic cases of functional connection, where only the objectual identity and the object's movement are in play; i.e. where only primary or secondary qualities of the object are interested: for example, in the tunnel effect.⁴⁷

In actual fact, language creates a prejudice against *noticing* (i.e. against the explicitness of the multiform content of inner perception) because the name for a certain fact – the analogue to evidence in certain emotional activities, for instance – is lacking. Metaphors usually make up for these expressive shortcomings of language.

A correct psychognostics therefore poses the question: how are the phenomenal qualities of the objects under observation deposited in language? My thesis, in fact, is that the origins of semantic categories, and in particular of the adjective encoded as adjectives or adjectival parts, is to be found in the different types of qualities. This also implies the possibility that the secondary grammatical status of adjectives as a syntactic category which is generally

⁴⁶ [Lipps 1897].

⁴⁷ [Minguzzi 1968], 193-4.

secondary to the categories of nouns and verbs in natural languages does not contradict the primacy of qualities in the morphogenesis of sense.

How can a natural language be constructed from the perceptive continua of contents which present themselves in the twofold guise of fusion and/or discontinuity, of pleasantness and/or unpleasantness?

If Benussi was correct in his analysis of the phases of the presentation, this comes about via *constant transition between adjectives and nouns*, or better between *adjectival* parts and *substantivized adjectival* parts, in actual perception, which thus constitutes the real and proper *speculative grammar* of the language. Husserl developed a similar argument in his theory of the *semantic categories* of *adjectiveness* and *substantiveness*, which constitute the profound structure of predication in that they refer to what is perceptively recognized as whole and parts, and which only successively becomes substratum and its determinations, in the actual duration.⁴⁸

The role of conscious qualitative contents (like percepts and images) is therefore to form what has been called elements of a *lingua mentis* or of a *lingua franca*. The *simple ideas* of which all thoughts are composed, as described by Descartes writing to Mersenne, are in fact *certain signs and more or less clear images which can be 'reproduced' and combined at will*.

Of course, also acting at the level of the morphogenesis of language are *figural elements* ("a-sensory" Benussi would call them). Therefore, besides the recognition of objects, also in operation is the analysis of cognitive forms and completions as elements with which assimilate, connect, shape, merge, etc.; as well as discriminating elements like *comparison* (of similarity and/or difference), *analysis* of mental objects, or functions analogous to the *measurement* of real objects (as elements to cut, transpose on others, etc.). All these elements have to do with a theory of the *expression* of perceptive contents and more in general with the genesis of language.

The categories of *adjectiveness* and *substantiveness*, in particular, constitute the structure of original predication because they refer to perceptive contents of empirical reality; that is, to the way in which objects are originally present to the consciousness. Whereas in the linguistic proposition the perceptive contents subsequently perform the function of subject and predicate, the *adjectival-substantival nucleus* of perceptive objects simply denotes the fact that there exists a law of mereological dependence between the perceived phenomenal whole and its parts, between its dynamic development and their modes of connection.

The presentation of diverse perceptive objects in fact arises from the manifold connections among the parts of the whole. Consequently, the

⁴⁸ [Husserl 1936] and [1996]. On this see [Albertazzi 1996].

presentation of an object, independently of its ontological givenness (whether it is a thing or a quality), may occur originally, in the presentation, in both adjectival and substantival form. I can in fact see the bright red (adjectival) of a rose-bush before I notice the individual roses or the bush (substantival). And in this case the red is the figure while the roses provide the background, or are simply the existential bearers of the original perceptive content. Likewise I may see the trembling (the qualitative movement) of leaves before I notice the trees and the branches which bear the leaves moved by the wind.

The adjectival parts play a leading role in this process of the morphogenesis of the expression of perceptive content. The adjectival parts, in fact, determine or modify the whole, they depict it as present or absent, as determinate or indeterminate, as of this or that type. Forms of inferential predication like 'Socrates is seated,' 'Socrates is white' or 'Socrates is dead' refer to the *mode* in which a whole is present to consciousness (for example, 'white' in this case is a qualifying adjective); secondly, the role of *intentional modification* is assigned to the adjective.

From a categorial point of view there are substantially three types of modification:

- (i) modification of the terms into subject and predicate;
- (ii) modification by contrariness or elimination;
- (iii) modification based on a dual judgment.

The morphogenesis of the expression concerns types (ii) and (iii).

In fact, once in language, stabilized and operating as a linguistic class, the adjectival parts of the percept serve to *determine* or *modify* the whole to which reference is being made.

A determinant attribute is an adjective which determines, supplements or completes the meaning of a term, examples being 'red,' 'beautiful,' 'old,' 'appetizing,' etc. Determinant adjectives therefore perform a *categorematic function*.

A modifying adjective instead is one which modify the type of noun being referred to: for example, 'apparent,' 'preceding,' 'so-called,' 'false,' 'dead,' etc. are cases of modification by negation. In fact, a 'dead' king is not a king, a 'false' friend is absolutely not a friend.⁴⁹ Modifying adjectives therefore perform a *syncategorematic function*.

Again: a *past* note or a *seen* colour are not the objects of normal presentation like actual notes or colours. 'Been' and 'seen' are *modifying determinations* of the object of presentation because, in this case, the note is a

⁴⁹ [Brentano 1982]; [Twardowski 1894]; [Marty 1928].

part (distinctional) of the past note only in the weakest and most improper sense. By means of modifying determination the object becomes a part of the correlate of the act of presentation.⁵⁰

There are then types of modification which are only apparently similar to those just described, for example 'painted landscape' or 'thought horse.'

The difference between these two types of modification lies in the diverse aspect of the whole, which is once again specified by the adjective. In the case of 'dead king' the reference to the *matter* is preserved; in the case of the 'painted landscape' it is reference to the *form* that is preserved. Both cases, however, involve types of *natural predication* ontologically founded in the first instance on objects and their qualities, and only subsequently on qualities of qualities (or better, properties of properties). In the case of 'painted landscape,' in fact, the whole presentation on which it is based consists of a landscape which is recognized, and by the *mode* in which it is recognized, as a painted landscape. Grammatically, the whole is transformed into a double judgement: this is a landscape, *it is painted*.⁵¹ The adjective therefore performs the ontological role of replacing the type of primary material of the whole (the object of the presentation) with a type of secondary material (the content of the presentation). Morphogenetically, the adjective is also the prime *constitutive factor* of language.

Thus, if we conduct *morphogenetic* analysis of the whole, and therefore take account of the dynamics of the phase of actual intentional presentation, the role of the adjective (i.e. of the various content aspects of the object) becomes even more crucial, because it expresses the *dynamic qualities* of the forms of the perceptive contents. In this sense, the *adjective is morphogenetically the root of the expression* which resides in the expressive qualities of the stimulus pattern.

If we pay even closer attention to the process constitutive of the perceptive presentation, however, we find that the global content is formed within a temporal structure (at minimum 700 msec) which exhibits perceptive moments of unity. These are temporally individualizable, relative to the prevalence of certain *qualitative semantic features* of greater *phenomenal salience* than others. Joint variation in these two aspects gives rise to different outcomes, to different perceptive contents. For example, tonal adjacency may overwhelm the temporal partition of the pauses among the notes, or an emotively connoted content may considerably shorten a duration.

Likewise, a change of direction in the actual perception of a movement can transform the perception of 'aggression' into one of 'get away;' or a change in

⁵⁰ [Brentano 1982], I.2. § 3. Modification concerns both the act and the correlate (which are fused together), and the correlate can in its turn be differentiated into parts of parts.

⁵¹ [Poli 1993].

the relation of speed can transform the perception of a 'launch' (i.e. a mechanical event) into one of a 'reaction' (a psychological one).

One must accordingly conclude that the morphogenesis of *perceptive objects* in the strict sense has to do, not with bodies in their concrete unity, nor with an object in general, but with what we may call *distinctional events* of the whole (which stand prior to distinctional parts), and which are combined by a *principle of abstractive relevance* whose effects have immediate expressive impact. This principle is also to be found in natural language as a specific *sign function*. As in perception, also in language the abstract characteristic notes of concrete things have their own independence, functioning as field values in a synsemantic peripheral field. This is the case, for example, of phonemes, which perform the same function as the moments of unity of the Gestalt whole, like the 'couple' or 'intervals,' thereby representing the *relevant aspects* of the *verbal image*. From this point of view, expression and symbolization are synonymous, in the sense of *explicit signs* or signs which do *not* stand for something else.

Adjectival parts, which best express these morphogenetic aspects of meaning, fulfil at least four different roles:

- i. they are *qualitative* indices;
- ii. they are *signal* indices;
- iii. they carry traces of the *morphogenetic events* of which they are the expression, particularly the space, time and evaluative connotation of the events; this hypothesis might be confirmed by the fact that the semantic classes that are most prototypical of adjectives are terms of spatial dimensionality (large/small, tall/short), terms of speed (fast/slow) and terms of evaluation (good/bad);
- iv. they *guide* the formation of the perceptive object, like the successive frames of a film;
- v. they *modify* or *determine* the substantivized object of perception.

A *characteristica universalis* of natural language if any should therefore begin with these, the prime expressive elements of the language of the mind.

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