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Meaning: what's the matter?

Intrinsic relations and the organism

Merleau-Ponty states that the aim of *The Structure of Behaviour* (1942) is to understand the relation between consciousness and nature. "Nature" is defined as a multiplicity of events bound together by relations of causality and external to each other. Although Merleau-Ponty stresses the causal *relation* of events in nature - 'thus giving a classic definition - he also points out that the causal relation is *external* or *extrinsic*.

The Structure of Behaviour mainly opposes the first part of the definition of nature, i.e. the idea of (linear) causation. Here, however, we want to trace what Merleau-Ponty's recognition of *intrinsic* relations involves. Such a recognition turns out to be particularly important where he reaches the pivoting point to trace the relations of consciousness and nature, namely the living system or the organism and its behaviour. From then on, it turns out to be impossible to determine the object under examination, the organism, as a classic object of science, i.e. as an object of which the parts and processes stand in an external or extrinsic relation to each other.

Another type of analysis is needed: the behaviour of the organism can solely be understood if the analysis is based on the *biological meaning* of behaviour, instead of considering behaviour merely as, e.g., the contraction of muscles. In that way, Merleau-Ponty reacts against the scientific-causal study of behaviour, in which notions such as intention or use or value are rejected as subjective, because such notions are not funded into the objective world and are no intrinsic determinations of it.

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In that way, Merleau-Ponty moves away from the mechanistic view in biology, but at the same time he fears the ever-returning trap of vitalism. According to vitalism, the unity of the organism comes about by means of a subordination of the separate mechanisms under an entelechy, which does not only bring about the unity, but is also responsible for the biological sense or meaning of the whole. Merleau-Ponty opposes a possible vitalistic interpretation of his ideas. The organism is no material mass *partes extra partes*, but neither is there a teleology at the basis of the organism's essential unity.

So what is the positive side of Merleau-Ponty's position? First of all, his solution is ambivalent. The high degree to which he is tributary to Husserl's consciousness philosophy is apparent and makes an unequivocal and straightforward reading impossible. In the next two sections I intend to explain - not to remove - that ambivalence, which is partly due to his view on meaning. In the second place, this early work of Merleau-Ponty offers an approach in which meaning has its origin in biological phenomena, and not so much in mental phenomena or in consciousness. In later sections of my paper I will follow that direction and explore how the notion of intrinsic norm plays a key role.

The organism and the problem of meaning

Merleau-Ponty blames the sciences, and biology in particular, for having a view of the organism as a material mass *partes extra partes*. Such a view can only lead toward a mechanismism *or* a vitalism. An analysis which reduces behaviour to a series of events that do not have any intrinsic relation with each other, but are merely ruled by the laws of (linear) causality, is unfair to the - even scientific - experience of behaviour¹. Behaviour implies intrinsic relations, this means relations that cannot be explained based on causality alone, but in which the parts or processes are related to each other in a meaningful way. Therefore, the surplus of an intrinsic relation is the (biological) meaning.

But what brings about this surplus of meaning? Merleau-Ponty refuses the solution in which consciousness is a psychic reality or cause, which is added in order to give an explanation of the meaning-aspect in behaviour. Alluding to Hegel, Merleau-Ponty says that the 'mind (*esprity* of nature is a hidden mind

¹ In *The Structure of Behaviour*, Merleau-Ponty tries to show that the experiences one has in the scientific study of behaviour, e.g., in behaviourism, does not match the theoretical framework and assumptions of the scientific theory in which the behaviour is studied. This is different from *Phenomenology of Perception* (1945), in which the *natural, everyday* experience of behaviour is explained.

and does not appear in the actual form of mind, but is only mind for the mind who is acquainted with it. We will return to this point.

So, the particular unity which the organism implies, causes problems for Merleau-Ponty. The organism's total activity is the sum of its local activities, but the local activities cannot be isolated from each other. But then what kind of existence does the organism have, and how does it realize the transition from *partes extra partes* to the meaningful unity it shows? How can it be thing and idea at the same time? Stated differently, how can it, as a material entity, partake of the order of meaning? The answer to these questions must not lead to a kind of teleology. Yet, teleology cannot be rejected by ignoring the facts which give strength to it, but by understanding these facts better than teleology does.

At the same time, we should not forget Merleau-Ponty's opposition against the other pole. Opposed to mechanicism, Merleau-Ponty defends a conception in which the organism is no longer viewed as a passive entity that registers stimuli. Instead of a passive registering, there is an elaboration of influences. This elaboration is actually a submission of influences to the *descriptive* norms of the organism. The notion of *descriptive norms* is the turning point we need in order to do better than teleology. The next question is twofold: what are 'descriptive norms' and what is their origin?

Descriptive norms have as their basis vital needs. Concerning the latter, Merleau-Ponty talks of the maintenance of an *equilibrium*. The motor part effectuates a restoration of the equilibrium of which the conditions are given in the sensory zone of the nervous system: movements are the outward expression of the reorganisation of the field of excitations. The nervous processes restore privileged states of equilibrium in each situation.

The notion of equilibrium should help us answer the question where adaptation to the stimulus and the coherence of the organism's reactions come from. The states of equilibrium represent the organism's *objective values*. The recognition that an organism has a 'vital interest' is the background of this. We can only classify behaviour as meaningful or senseless, as ordered or unordered in relation to those objective values of the organism. According to Merleau-Ponty, these denominations as meaningful or senseless, ordered or unordered belong to the living as such, and are not extrinsic or anthropomorphist.

However, he considers the norms to be *descriptive* - not explanatory - and sometimes he does explicitly question whether we are anthropomorphist when we say that a reaction is 'adapted' to the stimulus, or that a series of movements is 'coherent'. Don't we express relations that are uniquely conceived by our mind, which compares the 'sense' of the stimulus to the 'sense' of the reaction, and the 'total sense' of the answer to the partial movements which make up together the answer? In that way, we would prevent vitalism from being invoked, but at the same time we would project human norms into biological phenomena.

The meaningful relations by means of which we determine order, would be originating from our own organisation.

Therefore, Merleau-Ponty's solution is at least ambivalent concerning the origin of the meaning-aspect of behaviour. 'Meaningful' and 'senseless' are no extrinsic determinations, because they rest on the organism's 'objective norms', namely the states of (nervous) equilibrium. At the same time, however, the norms are no more than descriptive and we may ask ourselves to what degree they depend on our own constitution as observer.

Structure, meaning and sense*

It becomes clearer where the ambivalence comes from if we consider the broader framework. Merleau-Ponty distinguishes three orders - those of matter, life and mind - and three terms are correlated with those orders, respectively quantity, value and meaning (*signification*). But then a confusing loop follows. Matter, life and mind are not three orders in the *factual*, but are themselves three schemes of *meaning* or three kinds of unity. If the three orders are to be situated on the level of meaning, then they cannot be considered as disconnected from consciousness. This is an idealistic element and it follows - among other things - that the norms are descriptive but not explanatory. Secondly, it also follows - at first sight - that the correlation between the phenomenon of life and sense/value is possible. According to Merleau-Ponty, the idea of meaning (*signification*) allows us to preserve the category of life without the hypothesis of a mysterious, vital power. Moreover, inorganic structures can be expressed by means of a *law*, while organic structures can only be expressed by means of a *norm*.

Although the meaning (*signification*) and value of vital processes are attributes of the *perceived* organism, they are not extrinsic denominations with regard to the organism. Such is only possible because the three orders do not unambiguously belong to the order of meaning. If that were the case, Merleau-Ponty's solution would be a straightforward continuation of Husserl's idealism, in which consciousness is responsible for the constitution of all meaning. Merleau-Ponty admits that his criticism seems to lead to the transcendental attitude. But this is not the case, because Merleau-Ponty's basic idea is not *meaning*, but *structure*.

A situation and the reaction are *intrinsically* related because of their common participation in a structure. Situations which differ in respect of the stimuli, can

* I've translated the French *signification* as meaning and *sens* as sense, although the terms do not coincide completely.

have the same structure because of their biological sense. Situation and reaction cannot be viewed as cause and effect, because of this structure-aspect. In contrast, they are two moments of a *circular* process, because of which the activity of the organism cannot be understood as a function of the physical environment. The parts of the world on which the organism reacts are delimited by the organism's intrinsic norms. Its behaviour is coordinated by *sense*.

Nevertheless, Merleau-Ponty does not call the organism a meaningful unity (*unite de sens*'), but a unity of meaning (*unite de signification*). Merleau-Ponty seems to put the notion of meaning (*signification*) at the side of the observer, while the phenomenon of sense (*sens*) seems to be at the side of the organism.

Does the distinction between sense and meaning offer a solution for the ambivalence? First, since Merleau-Ponty does not stick to the distinction meaning/sense all the time, we doubt whether the solution is to be found there. Second, we might not have to situate the ambivalence in his theory, but in a single notion. That notion might offer a solution, although that solution does not remove the ambivalence, but reinstalls it. We have to look again at what structure is.

A structure is an organized form², and a form is a whole that has a sense (*sens*). It is excluded that structure is merely formal, because it has to guarantee the meaning-aspect. *The structure is an inseparable junction of idea and existence*. Because of this junction with (material) existence, Merleau-Ponty escapes idealism. Further, structure is the contingent way in which matter shows itself to us in order to have a sense. While meaning belongs solely to the order of consciousness, structure is inseparable from its material embodiment. Structure is the way in which matter, belonging either to the order of the physical, the vital or the human, has a sense for us.

What has Merleau-Ponty accomplished here? On the one hand, he has retained the features of meaning: meaning can only arise for someone who really attributes meaning to something - the observer in this case. Structure is not independent from perception and thus from consciousness. On the other hand, Merleau-Ponty seems to give to the organism a kind of autonomy concerning sense and intrinsic norms. All the time we have a fluctuation between what belongs intrinsically to the organism - sense, norms, meaningful relations, and what belongs to the observer - meaning, the perception of the organism, the descriptive aspect of the norms.

Although this ongoing shifting of both poles is not absurd, we have chosen to continue with what belongs rather to the organism, namely the sense. The first reason is that this side brings us to a very basic level of embodiment. Merleau-Ponty is mainly viewed as the author of *Phenomenology of Perception*, and as

² Merleau-Ponty bases this on the Gestalt (an organised form) from the Gestalt theory.

the one who has stressed the role of embodiment in, among other things, perception. *The Structure of Behaviour*, which is much less debated, offers us, however, a number of perspectives which we do not encounter again in his later work on perception and which bring us to a deeper kind of ‘embodiment,’ namely the fact that organisms are *material* entities and the role of that fact - via normativity - for the coming about of sense. The second reason is that, today, the separation between organization (formally conceived) and matter is no longer evident.³ Merleau-Ponty’s ‘structure’, in which the formal and the material are inseparably united, has brought us to this point.

Two different ways of considering sense

Most often ‘sense’ is restricted to the realm of the mental and modeled as linguistic meaning. Therefore, we have restricted the term ‘meaning’ to the field of consciousness. Merleau-Ponty situates sense in the realm of behaviour, so that the mental loses its monopoly on sense. At the same time, he often makes a distinction between sense and meaning.

In this section, we want to point out two different conceptions of what is meaningful - sense and meaning. As Merleau-Ponty does not make his view on *meaning* explicit, we take a look at the classic conception of meaning (e.g., in classic cognitive science) and contrast this with Merleau-Ponty’s conception of sense. At the same time, we agree with Merleau-Ponty where he does *not* make the explicit distinction between meaning and sense, because we do not want to limit the field of what is meaningful to linguistically conceived meaning.

Merleau-Ponty approaches sense and behaviour as inseparable phenomena. There is not, on the one hand, behaviour and, on the other hand, something psychic that is responsible for the meaning-aspect (sense). Of course, such a view is compatible with Merleau-Ponty’s general aim to understand - across the dualisms - the relations of nature and consciousness. His refusal to separate behaviour and sense means that no classic dualism remains valid: form and content, semantics and syntax, the physical and the mental, body and mind, value and fact are not separate classes but are inseparably mixed into an ‘impure’ category.

In the tradition Merleau-Ponty reacts against, the world is conceived of as a purely factual, objective-causal world. Meaning, sense, value and norms do not belong to that world, but to the order of consciousness. The world as such does not contain meaning. In the same way, behaviour is no more than a series

³ See, for example, the work of Bergareche and Ruiz-Mirazo (1999).

of events in the world or in nature, *without* intrinsic meaning, and at most with a derivative meaning.

Usually, meaning is associated with the norm of truth. That is part of the opinion that rational knowledge is most important, while behaviour and acting are considered as merely derivative phenomena. Moreover, they are not considered as inherently meaningful from the *organism's* perspective. Cognitive processing has to produce knowledge in the sense of a true picture of the world. Something inside the organism that is responsible for meaning (e.g., a representation that is the vehicle of content) has to match with something in the external world in order to guarantee meaning. The norm of truth is the only one that seems to satisfy the demand of objectivity. Moreover, meaning is most often *reduced to* aboutness and only form is accounted for - not content, which should nevertheless guarantee meaning (cf. classical cognitive science⁴).

This impoverished relation of aboutness, the reference relation as such - no matter how much it satisfies for an external observer the criterion of truth - is unsatisfactory in order to engender meaning for the system itself. That is related to the following problem inherent to theories of representation.⁵ Meaning, as the content of representations, has to correspond with the outside world, but since the organism has no access to that external world except via its representations, it has no basis for examining the truth of its representations.⁶ The norm of truth therefore is external to the organism. The observer, who does have access to the norm, does find meaning in the representations, but he puts it there himself. Meaning can only be produced by the organism itself if it has *internal* norms, on the basis of which it can arrive at an *original* meaning. But how does the organism arrive at internal or intrinsic norms?

Where do intrinsic norms come from?

Merleau-Ponty does not explain any further than that equilibrium is the foundation for the values of the organism. The aiming for restoration of the equilibrium becomes evident in behaviour. Behaviour is meaningful because it tries to realize the norm of equilibrium.

Although he denominates «life» as one of the three orders, the issue of life is hardly raised. His notion of equilibrium mainly relates to the nervous system,

⁴ J. Fodor (1975) is the prototypical representative here.

⁵ For a more extensive treatment of the problems of representational theories, see the interactivist account (e.g., Bickhard and Terveen, 1995).

⁶ One solution to this problem is to place it in an evolutionary frame, but for the problem of meaning for the organism itself, this does not involve any improvement.

which searches for a (re)distribution of excitatory tension. Such a nervous homeostasis is only one of many homeostatic processes which are so characteristic of the living.

Merleau-Ponty seems to try to express something rather general which offers a basis for the biological meaningfulness of behaviour in general. The equilibrium is not something like the maintenance of one single property such as blood temperature, but rather the general homeostasis of the system. As Merleau-Ponty does not give us a satisfactory account of the basis of values and norms, we have to take a look elsewhere.

According to Boden (1999) autopoiesis⁷ is just such a special case of general homeostasis. What is preserved, is not one property, but the organisation of the system that is maintained as one coherent unity. This can at once help to answer the question how an organism resists the transition from a meaningful whole to a mass *partes extra partes* or how it resists the loss of the life processes. An autopoietic system is one which produces its own components and maintains itself as a unity separate from its environment. The first norm then is to maintain its integrity. The development and the maintenance of order are spontaneous or autonomous: they originate from the intrinsic character of the system, rather than that it is imposed from an external source.

Something acquires meaning for an organism if it links up - positively or negatively - with the norm of the maintenance of integrity. The autonomy - the bringing about of norms oneself - is in that sense a consequence of autopoiesis. A robot which does not bring about the intrinsic basic norm of integrity of its matter, will not arrive at internal norms and therefore won't have the autonomy which the behaviour of an organism implies. Bickhard (1999), in the frame of the genesis of normative function, points to the same thing. According to Bickhard, 'function' is the contribution to the maintenance far-from-equilibrium of a system and is always relative to some such system. At the same time, he stresses the crucial difference between biological systems and robots. The robot's body is not far-from-equilibrium and therefore does not ask for maintenance by the organism. In contrast, most of the material of a biological system is far- from-equilibrium and has to be maintained and repaired continuously (Bickhard, 1999, p. 7). The robot is only far-from-equilibrium in the sense that it needs energy, but "the basic existence of the robot is not far-from-equilibrium" and does not demand self-maintenance, which is of course relevant for the possible coming into existence of normative function. Normativity demands a vulnerability at a deep level.

⁷ Autopoiesis is of course best known because of the work of F. Varela.

Boden's (1999) distinction of three kinds of metabolism can help us to make clear what level it is about. First, there is the weak sense of metabolism, which merely implies the dependence on energy (cf. the robot). A stronger kind involves the idea of individual energy packets (Boden, 1999, p. 235).⁸ Finally, the biological conception of metabolism is the strongest:

The third sense of metabolism refers to the use, and budgeting, of energy for bodily maintenance as well as behaviour. Metabolism is here seen as a type of material self-organization which (...) involves the autonomous use of matter and energy in building, growing, developing, and maintaining the bodily fabric of a living thing. The matter is needed as the "stuff" of which the body is made. And the energy is needed to organize this matter into something that persists in its existence despite changes in external conditions. (Boden, *Ibid.*, pp. 236-237).

The robot lacks this third form of metabolism: it doesn't have the processes in which its own original materials are regenerated. Consequently, the matter it is made from does not have the same status as that of the organism. From what we know about intrinsic norms, the robot cannot bring about intrinsic norms. Its matter does not provide the opportunity of having 'objective values' and intrinsic norms. Its matter is no layer for normativity, and, therefore, neither for the possible emergence of meaning.

According to Boden, Artificial Life (AL) remains a formal discipline, in which life is seen as a property of the organization of matter, rather than a property of matter which is organized in a certain way. In AL the nature of matter is not relevant to the status of the physical thing as a living being. It is a kind of functionalism, analogous to functionalism in the *philosophy of mind*, which means that life is approached in a formal and abstract way. Criteria are searched for, without going into the nature of matter, although it is admitted that 'some' foundation is necessary. Boden nevertheless sees one exception in the list of formal criteria: having a metabolism.⁹ It is only via the way of living matter that we can arrive at such a thing as *intrinsic* or *internal* norms. The properties of its own living matter are the foundation for the intrinsic norm of the integrity of the system. We may call it some kind of very basic and deep embodiment, of which the robot - up to now - cannot satisfy.

⁸ This means that a system has distinct energy-levels, and that the energy is used up as the system engages in various activities. Sometimes, different sub-packets of energy are assigned to different activities (e.g. mating and fighting).

⁹ Those criteria are: self-organization, emergence, autonomy, growth, development, reproduction, adaptation, responsiveness and metabolism.

Conclusion: sense, normativity and behaviour

Meaning is a biological phenomenon in the following sense: organisms behave in a way that is meaningful in relation to the maintenance of their own system. The difference between the living and the non-living is, among other things, to be found in that the non-living does not have biological values which it tries to maintain by relating itself in a meaningful way to its environment, this means, according to its own norms. The meaningfulness of behaviour is not a classic kind of meaning: behaviour which follows these norms, does not have any truth value, but is about succeeding in maintaining material integrity. Therefore, living matter is necessary for the coming about of meaning, via the way of normativity.

Meaning originally comes from the deepest level of autonomy and embodiment: the production and maintenance of the organism's organized *matter*, or having an autonomous metabolism. Sense can only be there on the basis of intrinsic norms, which are in their turn related to the material constitution of the organism. In Merleau-Ponty, meaning often is a phenomenon which takes place between the organism and the observer: the living system appears to us as a meaningful entity. Here, we have mainly tried to indicate the material aspect of Merleau-Ponty's 'structure', in order to bring that aspect, via normativity, into relation with meaning. Umerez formulates it as follows: "Metaphorically, life is matter with meaning.(...) Hence, the reason why life is «so different») is because it autonomously embodies, in different stages of accomplishment, symbolic and inherently meaningful structures" (Umerez, 1998, p. 377). The above is not unproblematical. Joslyn (1998) mentions that in the biosemiotic school the presence of life can be understood as equivalent to the presence of meaning in that system. But at once he indicates the danger of vitalism - not as accepting a mysterious force, but as reducing the phenomenon of life to semantic relations. In other words, we solve the problem of the living by making an appeal to another problematic notion, the one of meaning. Nevertheless, we think that - by taking intrinsic norms into account - something can be added to the relation between the living and meaning. A naturalization of meaning could approve of the path Merleau-Ponty that follows in *The Structure of Behaviour*, if the naturalization subscribes to the tendency to view life and cognition in continuation.

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