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STONE SENSE

– SENSIBILITY AND ANALOGY IN DIDEROT'S Le Rêve de d'Alembert.

"... il faut que la pierre sente". This is how d'Alembert ends his first line in the dialogue entitled "Entretien entre d'Alembert et Diderot". The astounding consequence that the stone is able to feel and perceive is Diderot's own suggestion – for the interlocutor is Diderot himself. In other words, sensibility is a general and essential quality of matter. Such a proposition is not easier to understand, according to d'Alembert, than the Cartesian idea that there are living beings constituted by one extensive substance and another non-extensive at the same time.

"Entretien entre d'Alembert et Diderot" is the first of three dialogues constituting Le Rêve de d'Alembert, written by Diderot in 1769. The two others are "Rêve de d'Alembert" and "Suite de l'entretien". Even if they are all quite different, it is nevertheless possible to maintain that they all deal with the question of universal sensibility, in one way or another.

In the following, the introductory citation will be used as a starting-point for approaching the question of universal sensibility as Diderot elaborates it especially in the first of the dialogues. How can universal sensibility possibly be imagined? What is the implications of there being a universal sensibility grounding the being and functioning of all beings? What kind of problems regarding presentation does such a proposal provoke? Since Diderot is not famous for any original ideas, it is particularly the last question that is

¹ The first dialogue is a rather sober conversation between the two editors of the French *Encyclopédie* about universal sensibility. In the next one the point of departure is the d'Alembert's dream anticipated by Diderot in the first dialogue. D'Alembert is asleep in most of the text, although talking and reflecting while sleeping. In fact he continues the talk he had with Diderot just before but now, while dreaming, the consequences are much more extravagant and bold than in the first dialogue. However, the narration of this dialogue takes place as a "real" conversation between Mlle. de Lespinasse, his lover, and a well-known doctor, Bordeu, who is there to make sure that d'Alembert is not seriously ill. In the third dialogue, Mlle de Lespinasse and Bordeu continue their conversation about the moral consequences of the universal sensibility.

interesting. Lester Crocker says explicitly that Diderot has stolen all his ideas. P. Lemay suggests as much though adding that it is his way of presenting the ideas, which is interesting. Even Jean Starobinski emphasizes that "the originality of Diderot, is in the accent, not in the idea itself which is widespread".²

Let us then pay attention to the way in which he presents his ideas. For it seems that his way of doing it demonstrates universal sensibility in a way that is as least as convincing as the arguments. By experimenting with analogies, both as a poetical, rhetorical and an argumentative device, Diderot shows performatively how universal sensibility can be imagined. The use of analogies then becomes a concrete experiment illustrating the abstract idea of the universal sensibility. In testing this hypothesis in different kinds of sense-experiments, a special form of aesthetic experience is achieved. An aesthetic experience that is both associated with the act of sensing, from which the Greek word aisthesis originally stems, and with the experiment and the experience of artistic forms in the ordinary modern meaning of aesthetic.

SENSIBILITY

How then is it possible to imagine that a stone is capable of sense experience? Or better: under which conditions can such a statement become coherent and plausible? This assertion assumes first and foremost universal sensibility as something inherent in matter. But if there is only one substance, there is no longer any difference between a stone and a human being. How can it be regarded as reasonable to maintain that a stone is a stone and not a human being? These are some of the questions d'Alembert deals with during the conversation. Diderot tries to explain by introducing a demarcation between inert and active sensibility. There is no essential difference between the stone and the human being, he maintains, it is only a question of how sensibility is organised in matter. It may be passive, and then it is immobile, and it can be

² Lester Croker: "John Toland et le matérialisme de Diderot", Revue d'Histoire litteraire de la France, 53 (1953), p. 294: "Toutes ses grandes idées ont été formulées avant lui." P. Lemay: "Du nouveau sur le Rêve de d'Alembert", Le Progrés médical, 15-16 (1951), 423: "cet écrit ne contient rien de personnel, si ce n'est la façon de traiter le sujet." Jean Starobinski, Action et réaction (Paris: Presses universitaires françaises, 1999), 61: "L'originalité de Diderot est dans l'accent, non dans l'idée elle-même, qui a un large cours." All translations are mine.

active and then mobile. This is the only difference between a stone and a human being. But under what conditions can inert sensibility become active? A reorganisation of matter. While talking, Diderot and d'Alembert stand in front of a statue by the sculptor Falconet, the famous *Pygmalion and Galatea*. Diderot refers to this statue as an example when trying to demonstrate how the stone can be able to sense:

Diderot: I take this statue you can see, put it into a mortar, and with some hard bangs with a pestle...

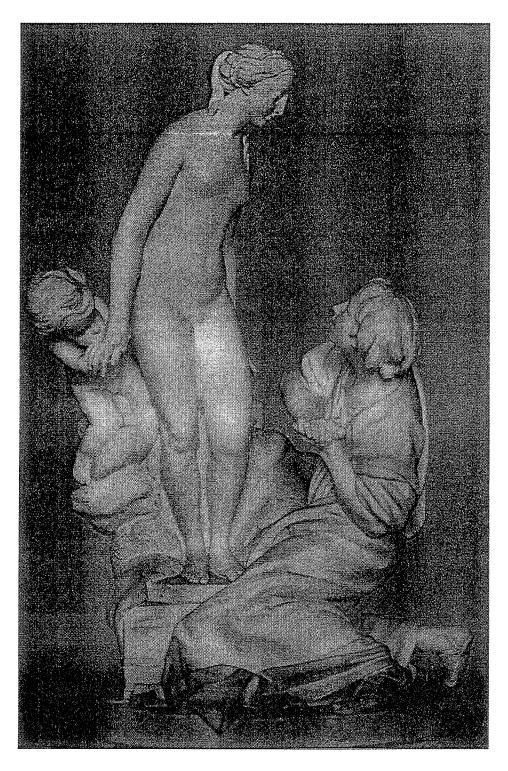
D'Alembert: Mind how you go, please. It is Falconet's masterpiece. If it were merely something by Huez [a mediocre contemporary sculptor] or somebody [...]

- It doesn't make any difference to Falconet, the statue has been paid for, and Falconet cares very little about his present reputation and not at all about it in the future.
- All right, pulverize away, then.
- When the marble block is reduced to the finest powder I mix this powder with humus or compost, work them well together, water the mixture, let it rot for a year, two years, a century, for I am not concerned with time. When the whole has turned into a more or less homogenous substance into humus you know what I do?
- -I am sure you don't eat it.
- No, but there is a way of uniting that humus with myself, of appropriating it, a latus, as the chemists would call it.
- And this latus is plant life?
- Precisely. I sow peas, beans, cabbages, and other leguminous plants. The plants feed on the earth and I feed on the plants.
- It may be true or it may be not, but I like this transition from marble to humus, from humus to vegetable matter and from vegetable matter to animal, to flesh.³

Through nutritive assimilation Diderot explains how it is possible to imagine the sensibility of the stone, or rather, how the inherent inert sensibility can become active. As a last resort it is a question of organisation and transformation.

Even if Diderot, like other 18th century French materialists, replaces Descartes' idea of the two substances with only one, this does not imply that the only valid model for explanation is the mechanistic one. By providing substance with a universal sensibility, substance itself is in possession of a

³ Diderot: *D'Alembert's dream*, translated into English by L. W. Tancock (Oxford: Penguin Classics, 1966), 151.



dynamic principle that is movement, that is to say, the very condition for transformation. Motion is not something coming from the outside, which pushes substance as Descartes thought, the movement is no longer mechanical, it is described in a dynamic vocabulary, the terms of which are taken from chemistry. Starobinski remarks: "Diderot decides upon fermentation, that is to say, life and sensibility."

Diderot's argument is not too hard to refute. Even if Diderot to some extent manages to explain how passive sensibility can become active, the explanation of wby this happens is not sufficient. If he succeeds in replacing the Cartesian doctrine of the two substances by shifting sensibility into the substance itself, the problem remains as long as he does not spell out how this really happens. If one aims at philosophically consistent arguments for the assumption of universal sensibility, Diderot is maybe not the best reference.

Anyhow, if the logical corollaries and deductions are not valid in a strict philosophical sense, his argument is a good illustration of his way of thinking: Diderot is not aiming at definite conclusions, he is neither assertive nor categorical. He rather attempts to enlarge our capacity for imagining the possible. When he says that stones perceive and feel, this is to be understood in a figurative sense, it needs an explanation and a transition from passive to active sensibility. The sensibility of the stone is not to be understood as such, it is somewhat virtual: it contains the possibility of becoming an active sentient being.

In suggesting that stones are sentient, Diderot opens up a field of possibilities. Within this field, nothing is impossible, that which is not can exist as well as that which already is. Diderot develops his arguments within this field which gives him free reins to explore and to experiment with his ideas as well as with their implications. However, it is a challenge to avoid hardening them into a system; "tout est un flux perpétuel", everything is a constant flux, it says in the "D'Alembert's dream". If the conclusion of a longer argument is that stones must be able to perceive and feel, this does not necessarily mean that the stone and the human being are the same. Diderot is aware of this kind of simplification. In Réfutation d'Hélvetius he says:

One should only admit it, the organisation or the co-ordination of the inert parts does not imply a general sensibility, and the molecules of matter is nothing but a presupposition drawing all its power from the

⁴ Starobinski: Action et réaction, 62. The translation is mine.

difficulties which it resolves, which is not sufficient in good philosophy ... I see clearly... inert matter... going from the inert position to a sentient position and to life, but the necessary connection of this transition escapes me.⁵

Many necessary connections escape him. If he succeeds in conceiving the transition from passive to active sensibility, he has still not clarified the relation between sentient being and thinking being, as d'Alembert correctly remarks: "Nevertheless the sentient being is not quite the same thing as the thinking one".6 There is no doubt that Diderot is convinced that the faculty of thought stems from sensibility. In a letter to his friend Duclos, he remarks in 1765: "Thought results from sensibility, and in my opinion, sensibility is an essential property of matter." ⁷ If sensibility can rather easily be associated with nutritive assimilation, this is not equally obvious when it comes to the faculty of thinking. To extricate himself from this difficulty, Diderot formulates one of the major analogies in "d'Alembert's dream", comparing "the fibres of our organs" to "sensitive vibrating strings." Before discussing this analogy, let us begin with the function of the analogy in general.

Analogy

It is not an exaggeration to maintain that analogy is a neglected field of study in rhetoric and poetic. While metonymy and metaphor have been thoroughly investigated and initiated profound theories of poetics, analogy is hardly mentioned in literary dictionaries. In spite of this omission, analogy has nevertheless been an integral part of rhetoric and poetics since antiquity. I shall

⁵ Denis Diderot: Réfutation de Helvétius, Oeuvres philosophiques (Paris: Classiques Garnier, 1990) 566: "Il faut en convenir, l'organisation ou la coordination de parties inertes ne mène point du tout à la sensibilité générale et des molécules de la matière n'est qu'une supposition, qui tire toute sa force des difficultés dont elle débarrasse, ce qui ne suffit pas en bonne philosophie. [...] Je vois clairement [...] la matière inerte [...] passer de l'état de l'inertie à l'état de sensibilité et de vie, mais la liaison nécessaire de ce passage m'échappe."

⁶ Diderot: "D'Alembert's dream", 152.

⁷ Denis Diderot: Correspondance (Paris: Les Editions de Minuit, 1959, t. V.) 140-41: "[...] la pensée est le résultat de la sensibilité, et que selon moi, la sensibilité est une propriété essentielle de la matière; propriété inerte dans les corps bruts, comme le mouvement dans les corps pesants arrêtés par un obstacle, propriété rendue active dans les mêmes corps par leur assimilation avec une substance animale vivante. C'est ce que le phénomène da la nutrition démontre à chaque instant [...] l'animal est le laboratoire où la sensibilité, inerte qu'elle était, devient active." The translation is mine.

not sketch out this history here, but let me quote Aristotle's definition of analogy in the *Poetics*:

I call "by analogy" cases were b is to a as d is to c. I mean, e.g., [...] old age is to life as evening to day.8

Apart from being a device in rhetoric and poetics, analogy is also used in other discourses; in theology, in logic, in mathematics, as well as in music. Analogy is considered as a valid model for reasoning in different fields of knowledge and it is principally limited to relations of proportions. An analogy is, in short, the relation between at least two relations.

Diderot himself made use of analogy in his notion of aesthetics, or more precisely analogy defines the very experience of aesthetics. The pleasure of art, he pronounces in "Principes généraux d'acoustique", is nothing but an effect of proportions: "The pleasure of music consists in the perceptions of sounds", and later in the same text he develops this to an universal criterion, both of art and science:

But this origin is not particular to musical pleasure. The pleasure consists in the perception of relations: this principle applies to place in poetry, in painting, in architecture, in morals, in all the arts and in all the sciences. The perception of relations is the unique foundation of our admiration of our feelings, and this should be the point of departure for the explanation of the most delicious phenomena given to us by the sciences and by the arts.⁹

In the conversation between d'Alembert and Diderot he gives a precise definition of the analogy:

Analogy, even in the most complex cases, boils down to a rule-of-three progression working itself out in the sensitive instrument.¹⁰

In the "Principes généraux d'acoustique" Diderot links music to analogy, and in the "Entretien entre d'Alembert et Diderot" the definition of analogy is related

⁸ Aristotle: *Poetics*, 1457b, translated into English by Doreen C. Innes, based on Rhys Roberts (Harvard: Loebs Classical Library, Harvard University Press, 1995) 104ff.

10 Diderot: "D'Alembert's dream", 155.

⁹ Denis Diderot: "Principes généraux d'acoustique", Mémoires sur différents sujets de mathématiques, Oeuvres complètes, vol. II (Paris: Ed. Hermann, 1975 -) 236 and 256: "Mais cette origine n'est pas particulière au plaisir musical. Le plaisir consiste dans la perception des rapports: ce principe a lieu en poésie, en peinture, en architecture, en morale, dans tous les arts et toutes les science. La perception des rapports est l'unique fondement de notre admiration de nos plaisirs et c'est de là qu'il faut partir pour expliquer les phénomènes les plus délicats qui nous sont offerts par les sciences et les arts."

to music. A privileged relation between music and analogy arises. Analogy somehow finds its characteristic expression in music, the harmonies that are nothing but proportions. When Diderot refers to sensitive vibrating strings to explain the faculty of thought as a proper way of organising universal sensibility, the function of analogy is doubled. At the same time as the sensitive vibrating strings become an analogical expression for the faculty of thought, the formulation of the analogy is in itself an eminent expression of the analogy as such. Let us cite the passage:

That is what I think, and it has sometimes led me to compare the fibres of our organs with sensitive vibrating strings. A sensitive vibrating string goes on vibrating and sounding a note long after it has been plucked. It is this oscillation, a kind of necessary resonance, which keeps the object's qualities it wishes. But vibrating strings have yet another property, that of making others vibrate, and it is in this way that one idea calls up a second, and the two together a third, and all three a fourth, and so on. [...] This instrument can make astonishing leaps, and one idea called up will sometimes start an harmonic at an incomprehensive interval. If this phenomenon can be observed between resonant strings which are inert and separate, why should it not take place between living and connected points, continuous and sensitive fibres?"11

Ideas are compared to vibrating strings which in turn make other strings vibrate in the same way as one idea makes reference to other ideas and so forth. The argument is typically analogical, it is typical Diderotian. It begins with a simple comparison between the organs of our fibres and sensitive strings. As the argument advances, new elements are added on both sides of the comparison and in the end the human being as such is compared to an entire instrument:

We are instruments possessed of sensitivity [...] Our senses are so many keys which are struck by things in nature around us, and often strike themselves. And in my opinion this is all that happens in a clavichord organized as you and me.¹²

The instrument does not only turn into an image of the human being as such, the instrument itself appropriates the power to nourish and to reproduce itself:

- Thus if the sensitive and animated clavichord were endowed with the further powers of feeding and reproducing itself, it would be a living creature and engender from itself, or with its female, little clavichords alive and resonant, d'Alembert says.

¹¹ Ibid., 156.

¹² Ibid., 157.

- No doubt, replies Diderot.13

Thus the dimensions of the analogy transcend the purely logical imagination, and are developed into a mere fantasy that is neither possible to be restored as a human being nor as an instrument. The clavichord-analogy shows how Diderot's reasoning is developed from a fairly modest point of departure, and then by continuously adding new elements, it turns into a complex image reflecting a conception of the world, materialist monism, in which everything is linked together, the great chain of being. As such the analogy serves as a figure which combines different kinds of relations without reducing them to one kind. Even if the analogy expresses an identity between two different relations, this identity is nevertheless founded on a difference: the four elements constituting the analogy are all different from one another. And Diderot himself remarks that "the difference between the instrument called philosopher and the instrument called clavichord" ought not to be ignored.¹⁴

Analogy, then, produces oscillation between identity and difference, between the identity it expresses and the difference from where it originates. It does not substitute in the way metaphor does. Analogy, as we have seen, produces the transformation itself and as such it is a figure which attempts to capture the mobility of knowledge. To fix categories of knowledge is not one of Diderot's goals, rather, he aims at concepts able to contain the mobility itself of their signifiers.

In this way the comparisons Diderot presents are not only illustrations of an idea, they are themselves procuring the very matter of the idea. The analogies should be read as elements in an argument at the same time as they oscillate according to what they actually pronounce. The analogy functions then both as a substitute and as an extension, both metaphorically and metonymically. Therefore, analogy seems to be a useful device for presenting Diderot's ideas. Besides being a characteristic of style, which prevent reflections in fixed dualistic categories, it is the rhetorical figure which contains in itself transformation and mobility, as its principle.

The comparison between the human being and the clavichord is relatively direct and easy to recognise as an analogy. But the analogy is also what supports the argument for universal sensibility:

¹³ Ibid., 158.

¹⁴ Ibid., 157.

- I wish you would tell me what difference you think there is between a man and a statue, between marble and flesh.

Four elements are presented, organised in two different kinds of relations, that is to say, the figure of analogy. Diderot replies:

Not very much. You can make marble out of flesh and flesh out of marble.

The chiasm is formulated as an elliptic analogy. Actually it is saying: "In the same way as you can make marble out of flesh you can make flesh out of marble." This is the privileged formula of the analogy. In the next line, another pair supplies the precedent:

- But still the one is not the other.
- Just as what you call actual energy is not potential energy. 15

The very articulations are here conceived of in monistic materialistic terms, there are no longer any essential or substantial differences. The difference is still there, but the heterogeneity no longer resides in substance as something essential. The adjective that signifies the difference announces an accidental character of the difference. In this way, the analogy is not only the expression of the universal sensibility; it is its very foundation.

AESTHETIC EXPERIENCE

The analogy is, however, not a universal remedy, according to Diderot. The analogies can never confirm true knowledge, they are tentative. They remain as experiments trying to establish some coherence in a heterogeneous and complicated world. In this way they belong to the side of hypotheses and conjectures waiting to be proved or refuted. This does not matter for a poet, Diderot says, but for a philosopher or a scientist it matters. They must, after they have suggested analogies, actually study nature which often proves to be different from what the analogy suggested, and in the end they have to admit being seduced by the analogy. Nevertheless it worries Diderot that analogies are rarely confirmed when put to the test. In the *Elements of Physiology* he remarks:

¹⁵ Ibid., 149.

¹⁶ Ibid., 280f, paraphrased.

To explain what they cannot understand, they make references to a small, unintelligible harpist, which is not even atomic, which has no organs, in an environment that is totally heterogeneous with the instrument, which has no tactile sense and which plucks the cords."¹⁷

An analogy offers itself as a representation of reality, but as soon as it is to be validated it turns out to be deficient. This does not, however, mean that analogy as such should be avoided. Since nature in itself is complex and heterogeneous, analogies and conjectures are necessary if we wish to interpret nature. It is tempting to cite René Thom's point of view and apply it to Diderot when he states that:

An analogy after it has been formalised, that is to say been related to a well-defined 'logos' is necessarily true. But then it is not much to get from it [...] If on the contrary, the analogy cannot be formalised, then it is necessarily conjectural (hazardous). In this case, it may lead to new and unexpected consequences. Either the analogy is true, and then it is sterile, or it is hazardous (imperfect) and then it may be prolific. It is only by risking errors that it is possible to find something new. 18

The analogies elaborated by Diderot do not yield any firm conclusions. In "Le Rêve d'Alembert" they are not set out to be proved. Nevertheless the analogy functions both as an epistemological and as a rhetorical device to clarify some combinations in nature, more precisely universal sensibility. Aesthetics in the original Greek meaning of the word, *aisthesis*, is therefore already from the beginning something privileged. When the function of analogy is to ground the very idea of universal sensibility, this indicates that it is also an *aesthetic experience* that gives rise the idea. The alternation between a philosophical mode, a scientific vocabulary and a poetical language of images presents a literary experimentation on the theme of universal sensibility.

¹⁷ Denis Diderot: Eléments de physiologie, critical edition by Jean Mayer (Paris: Librarie Marcel Didier, 1964) 305-306: "Pour expliquer ce qu'ils ne peuvent comprendre, ils ont recours à un petit harpeur, inintelligible, qui n'est pas même atomique, qui n'a point d'organes, dans le lieu, qui est essentiellement hétérogène avec l'instrument, qui n'a aucune sorte de toucher et qui pince les cordes." The translation is mine.

¹⁸ René Thom: "De quoi faut-il s'étonner?", Morphogenèse et imaginaire, Circé 8-9, (1978), 7-91: "Une analogie lorsqu'elle a été formalisée, c'est-à-dire rapporté à un 'logos' bien défini, est nécessairement vraie. Mais alors il y a peu à en tirer [...] Si au contraire l'analogie ne peut être formalisée, alors elle est nécessairement conjecturale (hasardeuse). De ce fait, elle peut conduire à des conséquences nouvelles et imprévues. Ou l'analogie est vraie, et alors stérile; ou elle est hasardeuse (incomplète), et alors elle peut être féconde. Ce n'est qu'en courant le risque de l'erreur qu'on peut trouver du nouveau." – The translation is mine.

In conclusion, I would like to emphasize that not only is universal sensibility founded on a rhetorical figure, but the whole argument of the sentient stone springs from a concrete and very well defined aesthetic experience, the experience of Falconet's statue Pygmalion and Galatea. For those of you already familiar with the myth, it is easy to figure out what I am aiming at, for those of you who aren't, I should add that Pygmalion was the sculptor who fell in love with his own statue, Galatea, the most beautiful woman on earth. With a little help from the goddess of love, Venus, he animated his beloved statue. The statue, pulverised and animated by Diderot, represents the myth of the artist representing his own masterpiece in the moment when the stone begins to feel... In this way there is yet another aesthetic experience related to "Le Rêve de d'Alembert".