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SEMANTICS OF THE HUMAN BODY ACCORDING TO LEONARDO DA VINCI¹

The discovery of body-language is usually ascribed to contemporary psychoanalysis and neo-psychoanalysis. Also contemporary phenomenology, hermeneutics and cultural anthropology contributed many precious analyses of body-language. Nevertheless, body-language has been discovered and described much earlier.

In his notes joined together and entitled as the *Treatise on Painting*,² the famous Florentine painter and scientist, Leonardo da Vinci shared with his students his secrets of painting.³ In order to explain the possibility of depicting the human interior (thoughts, decisions, emotions, attitudes etc.), he introduced the (implicit) conception of semantic functions of the human body. As he showed, it can perform functions, which are analogous to functions performed by verbal (written or spoken) languages. He described, analysed, and depicted representative examples of semantic functions of the body, such as communication, reference, and expression. His remarks elucidate and his paintings depict their essence.

Leonardo did not elaborate a linguistic theory of semantic functions of the body. This conception is implicit in his works. This paper is to reconstruct his conception of semantic functions of the human body.⁴

Communication

Usually, gestures and mimicry accompany words. In this way, the body participates in the process of inter-personal **communication**. Yet, the human body can also communicate without words. As Leonardo stressed, painters should depict this function of the body: "The forms of men must have attitudes appropriate to the activities that they engage in, so that when you see them you will understand what they think or say." As Leonardo maintained, painters should learn

"...by copying motions of the dumb, who speaks with movements of their hands and eyes and eyebrows and their whole person, in the desire to express the idea that is in their minds. Do not laugh at me because I propose a teacher without speech to you, who is to teach you an art which he does not know himself, for he will teach you better through facts than will all the other masters through words. Do not despise such advice, for these men are masters of gesture and understand

from afar that which one says, when he fits the motions of his hand to the words he would speak." 7

Da Vinci's fresco *The Last Supper* (1495–1498, Santa Maria delle Grazie, Milan, Italy) is a very good example of such a "mute" conversation.

Reference (Referring to)

In order to communicate, the body has to be capable of referring to reality. That is why Leonardo advised his students "...learn to consider the subject with which he [a character] is concerned, and arrange gestures for him related to that subject..."

Remarks of Leonardo imply the modern semiotic concept of reference: Reference is a relation occurring between a sign (a picture, a gesture, etc.) and an object referred to. The sign indicates, refers to, and points to the object. This function constitutes relations of reference.

As Leonardo shows, the human body can refer without specifying the object referred to. For example, finger pointing of *Pointing Lady* (1516, Royal Library Windsor, United Kingdom) or direction of eyes of Christ and Madonna represented in the picture *Madonna Benois* (*Madonna del Fiore*, 1475–1478, from the school of Leonardo, Hermitage, Russia) do not characterize the object referred to. They only indicate the place (location) of the object.¹⁰

Yet, reference can also indicate something essential in objects referred to. For example, facial expressions of fear can refer to something terrible; laughter can refer to something funny, etc. Even a finger pointing can characterize the object referred to. If this gesture appears in the context of vertical symbolism, it can indicate specific values or dimensions of being.

For example, characters represented in paintings St. Anna and John (1498–1499?, National Gallery, London, England), Last Supper (1495–1498, Santa Maria delle Grazie, Milan, Italy), St. John the Baptist (Leonardo da Vinci, 1513, Louvre) point to the heaven. In this way, they indicate supernatural ("heavenly") dimensions of being (God, paradise, grace etc.) and "high" values.

Expression

Leonardo considered expression to be the most important semiotic function of the body represented in paintings. As he wrote to his students: "That figure is not praiseworthy if it does not, insofar as it is possible, express in gestures the passion of the spirit."

Examples and comments of Leonardo suggest the difference between expression and reference: When one perceives reference, one has first to notice the sign. Then, one has to "move" his attention from the sign to the object referred to. In this case, the sign plays the role of *medium quod* of perception. In contrast, signs of expression play the role of *medium quo*. In the case of expression, one does not have to "move" his attention from the sign to the object, because the object is "given" in the sign. The object

becomes visible "in" the sign of expression. For example, emotions, attitudes, thoughts, etc. become "visible" in facial expressions. In expression, the face becomes transparent. This visual immediacy of perception is possible owing to the specific **unity** of the bodily sign and the object expressed by the sign.¹²

Leonardo did not elaborate a theory of expression. Nevertheless, his remarks and paintings elucidate the essence of expression. Leonardo showed and commented several types of expressing. One can order them according to objects that can be expressed by the body.

Expressing Emotions

As Leonardo maintained, "the movements of men are as varied as are the emotions which pass through their minds." As he showed all members of the body can express. Yet, the face plays the crucial role in expressing. Therefore, "[in expressing,] the hands and the whole person should follow the expression of the face." 15

Da Vinci listed most important emotions of facial expression: "Various are the expressions of the face due to emotions, of which the first are: laughter, weeping, shouting, singing in high or low tones, admiration, anger, joy, melancholy, fear, the pain of martyrdom, and others..." For example, relaxed and smiling faces can express peace and harmony of feelings. On the contrary, tensed and contracted faces can express anger. Sometimes expressions are mixed. For example, the warrior of the sketch *Red Head* expresses anger and fear. A similar (but less extreme) mixture of feelings can be found in *David* of Michelangelo Buonarroti.

Expressing Thoughts, Attitudes, and Worldviews

According to Leonardo, the body can also express intentions and thoughts.¹⁷ As he advised his students: "portray figures with a gesture that will be sufficient to show what the figure has in mind, otherwise your painting will not be praiseworthy." "The attitudes of men and the parts of their bodies should be disposed in such a way that these display the intend of their minds." Therefore, "The good painter has two principal things to paint: that is, man and the intention of his mind. The first is easy, the second is difficult, because it has to be represented by gestures and movements..."

In order to indicate ethical attitudes of people Leonardo has often made use of horizontal/vertical symbols: For example, a finger pointing to heaven can express attitudes of following "high" values. That is why, John the Baptist (*St. John the Baptist*, 1513–1516, Louvre, Paris, France) points to heaven. On the contrary, Bacchus (*Bacchus*, 1513–1516, Louvre, Paris, France) points to the forest. Originally, this painting was also called "John the Baptist." Yet, since the end of the 17th century, it started to be called "Bacchus." Probably the horizontal direction of his finger was the reason to change the name of the painting. It is not excluded that the change had given justice to the intentions of Leonardo. If one follows this interpretation, one should notice that St. John and Bacchus are very similar to each other. They seem to depict the same person. In this way, they symbolise the most fundamental choice of each person: One can either follow "high (heavenly) values" (symbolized by heaven) or one can search for "low (earthly) values" (symbolized by the forest).²¹

Of course, the above interpretation is not ultimate. Gestures of horizontally finger-pointing can have many meanings. For example, they can indicate the horizontal (temporal) dimension of being. In this case, the name "John the Baptist" could be well justified. Notice that a similar sense can be ascribed to the horizontally open hand represented in picture *Virgin of the Rocks*.

Leonardo's vertical symbolism has been absorbed and developed by Raphael. In his *Academy*, he depicted Plato who points to heaven. This gesture is to express and refer to the Transcendence, to the absolute dimension of being (the Platonic metaphysics of Ideas). By his horizontally open hand, Aristotle refers to the horizontal dimension of being. This gesture points to the sensual world. In this way, Aristotle expresses and refers to his teaching of forms. Notice that the gesture of Aristotle first appeared in the painting of Leonardo – *Virgin of the Rocks*.

Raphael admired and followed da Vinci. Giovanni Reale maintains that the face of Plato in *the Academy* resembles the face of da Vinci. The similarity is remarkable if one compares *Self-portrait* of Leonardo and *Academy* of Raphael.

As Reale stresses, the gesture of Plato, and the gesture of Aristotle do not assume a contradiction. They indicate compatibility of Aristotelian and Platonic approach. ²² For the gesture of pointing to the heaven and the gesture of horizontally open hand cross each other and constitute the symbol of the cross. It is the symbol of unification and reconciliation between the "World" and the "Heaven."

Expressing the Kind of Men: Sex, Vigour, Age, Social Roles, Education, and Personality

Leonardo warned his students against overlooking the kind of men depicted: "Do not represent actions that do not become him who embodies them." The boor should not act as does a noble and well-mannered man, nor the strong like the weak, nor courtesans like good women, nor males like females." Motions will be appropriately of greater or lesser liveliness and dignity, according to the age, well-being and importance of him who makes the motion." ²⁶

As Leonardo suggested, body language can express/refer either to natural or extranatural characteristics of the kind of men. **Natural characteristics of men** can be specified according to sex (male/female), ²⁷ force (strong/weak), ²⁸ vigour, ²⁹ and the age (old/young) of men, etc. ³⁰ **Extra-natural characteristics of man can be specified by** social roles, personality and education, etc. ³¹

Expressing Life

Bodily signs can also play the function of expressing/referring to life of the person. As Leonardo wrote: "If the figures do not perform lifelike actions, and express the concept of their minds with their limbs, those figures are twice dead, because they are dead to begin with, since painting is not in itself alive but expressive of things alive without being alive in itself, and if it does not add the vivacity of actions, it becomes twice dead." ³²

Expressing Individuality and Dignity of Persons

Leonardo warned painters not to overlook expressions of individuality. For human bodies are different: "If nature had only one fixed standard for the proportions of the various parts, then the faces of all men would resemble each other to such a degree that it would be impossible to distinguish one from another; but she has varied the five parts of the face in such a way that although she has made an almost universal standard as to their size, she has not observed it in the various conditions to such a degree as to prevent one from being clearly distinguished from another." ** La Gioconda (Mona Lisa, Louvre, Paris) gives a very good example of the facial expression of human individuality.

As Leonardo suggested, besides uniqueness of each face, the "charm of beauty" is unique in each person.³⁴ In this way, he introduced the concept of ontological (numeric) individuality (uniqueness) of persons. Let us consider this standpoint with the example of *Mona Lisa*.

According to standards of beauty, Gioconda is not beautiful. Nevertheless, she is charming. When one experiences this charm, one discovers her beauty. There are many theories that attempt to explain the source of her charm. Most of them agree that this experience is evoked by her mysterious smile. In my essay The Smile of Gioconda. A Contribution to the Phenomenology of the Face, I have attempted to show that the "covering" function of the smile is responsible for evoking the experience of her presence and individuality: For her smile "hides" her reasons to smile. One does not know why she smiles so slightly, and so mysteriously. Her smile hides her interior. Yet — in this way — her smile reveals her interior. Through the "curtain" of the smile, one gets to know that there is something that is (to be) hidden. In this way, the smile expresses presence (German — Beisein, Polish — obecność) of the conscious interior of the person who smiles.

Moreover, the smile of Gioconda carries axiological information concerning the dignity (value) of the person, who is "hidden" behind the smile:" As Leonardo suggested, curtains should cover the holy paintings in order to evoke the ambiance of mystery and piety. For people use to protect precious things by covering them. Leonardo's argument is close to the conception "natural shame" of Max Scheler. This kind of shame has nothing to do with resentment. As Scheler shows, in some situations shame is a natural and vital tendency to protect values. The cover is a natural symbol of the value of the object covered by the curtain. The curtain is a message: "Attention! You do not see everything yet. There is still 'something more' that is so precious that it has to be protected by a cover." In *Gioconda*, this message is amplified by the gesture of clasped hands. By this gesture, pregnant women use to protect their embryos. In the *Study of Hands of the Pregnant Woman*, Leonardo had carefully studied this gesture. This gesture reappeared in *Gioconda* in order to perform symbolical functions. It indicates the mystery and value of the person who is covered and revealed by her body.

His interpreters often overlook da Vinci's conception of semiotic functions. Yet, as I attempted to show, it is the crucial to his theory of painting. Therefore, it is worthy of further investigation. Moreover, this coception is a very effective tool of interpreting body language (in visual arts and in life). The approach of Leonardo was ahead of his times. His conception of semiotic functions indicates the method that is near close to modern semiotic theories. I hope that the above paper is a step towards more systematic approaches to Leonardo's conception of semantic functions of the body.

Notes

- ¹ I would like to thank Professor Rocco Buttiglione and Professor Josef Seifert for their valuable remarks to this text.
 - ² L. da Vinci, *Trattato della pittura*, Milan 1982. English translations in this work come from:
- a) Leonardo da Vinci, *Treatise on Painting*, Vol. I, transl. by A.P. McMahon, Princeton University Press, Princeton & New Jersey 1956. In this paper, "ToP" indicates this translation.
- b) Leonardo da Vinci, Leonardo da Vinci on Painting. A lost Book A, Reassembled from the Codex Vaticanus Urbinas 1270 and from the Codex Leicester by C. Pedretti, London 1965, p. 75. In this paper, "TP" indicates this translation.

There are several traditions of division of chapters of the treatise. In this work, by "LU," one indicates sections' numbers following the division of the Ludvig Edition (1882), and by "McM," one indicates sections' numbers following the division of McMahon (ToP).

- ³ On da Vinci's mind, see among others: P. Barolsky (1994) Mona Lisa explained, Source (13), pp. 15-16; C.H. Carman (1992) Towards a context for understanding Leonardo's Mona Lisa universality and nothingness. Storia dell'arte (74), 247-255; R. Feldman (1983) Leonardo: the silent language of hidden images and moving pictures, Artforum (22) pp. 51-56; S. Freud (1910) Eine Kinderheitserinnerung des Leonardo da Vinci, Wien; E.H. Gombrich (1961), Symbolic Images. Studies in the Art of the Renaissance, London; (1966), Norm and Form. Studies in the Art of the Renaissance, London; (1976) Means and Ends. Reflections on the History of Fresco Painting. London; (1976) The Heritage of Apelles. Studies in the Art of the Renaissance, Oxford; A. Hildebrand (1893), Das Problem der Form in der bildenden Kunst, Strassburg, K. Keele (1959), The Genesis of the Mona Lisa, Journal of the History of Medicine and Allied Sciences (XIV) pp. 135-159; Martin Kemp (1981), Leonardo da Vinci. The Marvellous Works of Nature and Man, London; W. Kozicki (1936), Mona Lisa, Lwów; K. Jaspers (1953), Leonardo als Philosoph, Bern; C. Luporini (1953), La Mente di Leonardo, Florence; E. Panofsky (1940), The Codex Huygens and Leonardo da Vinci's Art Theory, London; R. Rodini (1991), The weight of words: Leonardo and the anxiety of language, Philosophical Quarely (70) pp. 277-287; W. Tatarkiewicz (1967), Estetyka nowożytna, Historia estetyki, Vol. III, Wrocław-Warszawa-Kraków; P. Valéry (1957), Introduction à la méthode de Léonard de Vinci, Paris.
- ⁴ Leonardo's conception of semiotic functions is very similar to the approach of the contemporary semiotics (Roman Jakobson, Karl Bühler and others). Therefore, this paper makes use of modern philosophical conceptions of communication reference.
- ⁵ "Apart from its nonsemiotic context, the term communication is used in ordinary language as interchangeable with 'imparting information,' 'intercourse,' 'exchange of thoughts, attitudes, feelings, or moods' etc." B. Stanosz, "Communication" [in:] *Encyclopaedic Dictionary of Semiotics*, Vol. I. Th. Sebeok (ed.). Mouton de Gruyter, Berlin & New York, p. 137. Communication has been much developed by contemporary semiotics and psychology. For a review of contemporary conceptions of communication, see: Zbigniew Nęcki, *Komunikacja międzyludzka*, Kraków 2000.

- ⁶ McM 250 (LU 115), ToP, p. 105.
- ⁷ McM 250 (LU 115), ToP, p. 105. See also: McM 248–250 (LU 115, 179–180), ToP, pp. 104–105.
 - ⁸ McM 424 (LU 380), ToP, p. 156.
- ⁹ In this context, by "object" one does not mean a "thing" (in contrast to personal "subjects" or fictional beings). By "objects," one means correlates of intentional acts. In this sense, also purely intentional beings (for example, fictions) or purely subjective features (such as emotions, attitudes, thoughts etc.) can be called "objects."

For discussions concerning reference, see among others: F.B. Fitch, Some Logical Aspects of Reference and Existence, Journal of Philosophy 1960; A.G.N. Flew (ed.), Essays in Logic and Language, Oxford 1950; G. Frege, Über Sinn und Bedeutung, Zeitschrift für Philosophie und philosophische Kritik, 100(1982); E. Husserl, Audruck und Bedeutung [in:] Logische Untersuchungen, Tübingen 1968; L. Linsky, Reference and Referents [in:] C.E. Caton (ed.), Philosophy of Ordinary Language, Urbana 1963; B. Russel, On Denoting, Mind 1905; Mr. Strawson on Referring, Mind 1957; P.F. Strawson, On Referring, Mind 1950; L. Wittgenstein, Logical Investigations, Oxford 1953. I would like to thank Professor Charles Conti for his valuable remarks concerning denotation and reference.

- ¹⁰ See: McM 410 (LU 372), ToP, p. 152/LU 372.
- ¹¹ McM 400 (LU 367), ToP, p. 150. See: McM 250 (LU 115), ToP, p. 105. "Let the attitudes of men and the parts of their bodies be disposed in such way that these display the intent of their minds [325]." McM 399 (LU 386) cu115, ToP, p. 150.
- ¹² One can compare, as Rocco Buttiglione does, expressions of body language to sacraments. For sacraments participate in the reality signified by them. See: R. Buttiglione, Der Leib als Sprache, Ethos (1)1993, pp. 87–100. This unity does not exclude the possibility of acting and lying by the signs of the body.
- ¹³ The concept of expression has probably originated from the ancient idea of *mimesis*. Phenomenological schools have recently developed it. One should also remember medical and scientific approaches to expression.

Some publications concerning the ancient conception of *mimesis*: S.H. Butcher, *Aristotle's Theory of Poetry and Fine Art*, London 1898; L. Golden, Mimesis and Catharsis, *Classical Philology* 64(3) 1969, pp. 145–153; H.D. Goldstein, Mimesis and Catharsis reexamined, *Journal of Aesthetics and Art Criticism* XXIV/1965–1966; T. Koller, *Die Mimesis der Antike*, Bern 1954; K.G. Srivastava, A new look at the 'catharsis' clause of Aristotle's Poetics, *The British Journal of Aesthetics* 12/1972. Later, thinkers and artists of romanticism have especially developed the conception of expression. See for instance: Hegel, *Vorlesungen über die Ästhetik*, Vol. I, Berlin 1935.

On phenomenological approaches to expression: M. Buber (1979), *Ich und Du*. Heildelberg; S.G. Crowell (1996) Husserl, Derrida, and the Phenomenology of Expression. *Philosophy Today* Spring, pp. 61–70; D. von Hildebrand (1977), *Ästhetik*, Vol. I, Regensburg; E. Husserl (1968), *Logische Untersuchungen*, Vol. I, Max Niemeyer Verlag, Tübingen; E. Lévinas (1974), *Totalité et Infini. Essai sur l'Extériorité*, Martinus Nijhoff La Haye; M. Scheler (1974), *Wesen und Formen der Sympathie*, Bern und München; J. Seifert (1983–1983), Beauty of Higher Forms (Second Potency) in Art and Nature. *Annales d'Estetique* 21–22, pp. 178–192; M. Waldstein (1981), Expression and knowledge of other person, *Aletheia* II, pp. 124–129.

For medical approaches to expression, see: C. Darwin, The Expression of the Emotions in Man and Animals. London 1872; G.B.A. Duchenne (1862), Mechanisme de la Physionomie Humaine: Ou Analyse Elektrophysiologique de l'Expression des Passions Applicable à la Pratique des Arts Plastiques, Renouard, Paris; G. Kirouac, M. Bouchard, A. St-Pierre, Facial expressions of emotions and ethological behavioral categories. Perceptual and Motor Skills 62(2) 1986, pp. 419-423.

¹⁴ McM 406 (LU 373), ToP, p. 152.

¹⁵ McM 419 (LU 286), ToP, p. 155.See also, McM 397 (LU 365), ToP, p. 150.

- ¹⁶ McM 418 (LU 285), ToP, p. 154.
- ¹⁷ See: McM 396, 403, 409 (LU 368, 371, 376), ToP, p. 149, 151–152.
- ¹⁸ McM 398 (LU 294), ToP, p. 150.
- ¹⁹ McM 399 (LU 325), ToP, p. 150.
- ²⁰ McM 248 (LU 180), ToP, p. 104.
- ²¹ There are manifold bodily expressions of ethical attitudes. For example, Vinci maintained that the position of legs (in paintings) can express moral attitudes of women. See: McM 395, 397–402, 404, 412 (LU 294, 296–298, 325, 327, 365, 367), ToP, pp. 149–51, 153. "Women and girls should not have their legs raised nor too far apart, because that shows boldness and general lack of modesty, while straight legs indicate timidity and modesty."McM 392 (LU 387), ToP, p. 148. "Women are to be represented in modest and reserved attitudes, with their knees rather close…" AP, p. 112, ToP, p. 106, 153. See also McM 253, 414 (LU 144, 287).
- ²² Apparently, this painting depicts a disagreement between the two Philosophers. Yet, as Giovanni Reale suggested, ultimately the Academy depicts the complementariness of Platonic and Aristotelian approaches to philosophy. If one more closely analyses the body language of this painting, one can notice some signs indicating agreement and complementarily between Plato and Aristotle in the Academy: The two philosophers stand very closely and incline to each other. Their attitudes are harmonized. Aristotle attentively looks at the finger of Plato, and Plato with understanding and friendship looks at the eyes of Aristotle. There is no sign of a disagreement in their faces. On the contrary, their faces are very peaceful. See Reale's commentary to the Academy of Raphael in: Giovanni Reale, Storia della filosopfia antica. II. Platone e Aristotele, Milano 1992.
 - ²³ I owe this remark to prof. Rocco Buttiglione.
 - ²⁴ McM 104 (LU 113), ToP, p. 62.
 - ²⁵ See: McM 403 (LU 376), ToP, p. 151.
 - ²⁶ McM 388 (LU 299), ToP, p. 147–148.
- ²⁷ "The actions of men are to be expressed according to their ages and ranks, and vary according to sex: that is, male and female." McM 389 (LU 326), ToP, p. 148. See also: McM 104, 253, 387 (LU 113, 144, 326, 377), ToP, pp. 62, 106, 147–148.
 - ²⁸ McM 406 (LU 373), ToP, p. 152.
 - ²⁹ McM 104 (LU 113), ToP, p. 62.
- ³⁰ McM 104, 254–255, 385, 387–389, 406–407, 414 (LU 113, 143, 145, 287, 299, 326, 357, 360, 373, 377), ToP, pp. 62, 106, 146–148, 152–153. On expressing/referring to childhood: McM 252, 390 (LU 198, 386), ToP, pp. 106, 148. See also studies of movements of children in the Royal Library in Windsor and in the Condo Museum in Chantily (France).
 - ³¹ See: McM 387–388, 414 (LU 287, 299, 377), ToP, p. 147–148, 153.
- ³² McM 403 (LU 376), ToP, p. 150–151. "The painted movement appropriate to the mental state of the figure, should be shown with great liveliness... If this is not done, such a figure will be called twice dead for it is dead because the figure is an imitation, and dead again, when it does not display motion, either of the mind or of the body. "If figures do not make lifelike gestures with their limbs which express what is passing through in their minds, these figures are twice dead-dead principally because painting is not alive, but only expressive of living things without having life in itself, and if you do not add liveliness of action, it remains a second time dead." [LU 376].
- ³³ "TP, p. 46. McM 395 (LU 297), ToP, p. 149. These intuitions of Leonardo are very close to the concept of expression of life in the modern realist phenomenology. See: J. Seifert (1997), What is life? The Originality, Irreducibility and Value of Life, Value Inquiry Books Series, Amsterdam & Atlanta.
 - ³⁴ TP, p. 75.
- ³⁵ TP, p. 77. See also: LU 136, 141. See: McM 278–279 (LU 140–141), ToP, p. 113. Da Vinci was probably influenced by Platonic conception of beauty (see: Plato, Symposium, XXI–XXX). For

a contemporary analysis of this problem, see: J. Seifert, Beauty of Higher Forms (Second Potency) in Art and Nature, *Annales d'Esthetique*, Athens 1982–1983, pp. 178–192.

³⁶ See: footnote 3.

³⁷ Jan F. Jacko (1998), Antropologia muta del sorriso della 'Gioconda' di Leonardo da Vinci. Un contributo alla fenomenologia del volto, *Prospettiva Persona*, 25/26, pp. 20–25.

³⁸ See: [CU 18] Leonardo da Vinci (1956) *Treatise on Painting*, Vol. I, transl. by A.P. McMahon, Princeton University Press, Princeton & New Yersey, p. 10.