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2. SIGNS OF REALITY

The idea of General Bildung by J. A. Comenius

INTRODUCTION

There are a good many reasons to either recognize or not to recognize Johann Amos Comenius (1592-1670) as an epoch-making founding father of modern pedagogics. In this article, which tries not to be a systematic historical or exegetic study on any of the many facets of Comenius' massive production, I will take up some interesting and perhaps confusing questions of his thinking. The main interest will be in the *Bildung* theoretical questions. As a tool for analysis I will use some semiotic theorizations which will also lead to a problematization of the whole concept of modernity.

Johann Amos Comenius was born in Czech – as Jan Amos Komenský but better known in the Latin form of the name. Nowadays he is a great Czech national hero and also very much a symbol of the striving for a common Europe¹. In short he devoted his life for the peace and happiness of all although his own life was anything but happy and peaceful. Because of the continuous local and pan-European wars like the Thirty Years' War, Comenius had to live in exile almost the whole of his life and move many times. He lost his family more than once and also much of his writing was burnt. Yet he managed to write prolifically and work with an extraordinary energy as an educator, rector, school reformer, church bishop and peace consultant.²

COMENIAN DIDACTICS AND PEDAGOGICAL MODERNITY

Comenius is generally best known for some of his educational works, ideas and innovations. Especially noteworthy are three books: *Janua linguarum reserata* (1631, *The Open Gate of Languages* (Comenius, 1643)), *Orbis Sensualium Pictus* (1658, *The World in Pictures*, (Comenius, 1887)) and *Didactica Magna* (1638, *The Great Didactics* (Comenius, 1907a)). The first was a Latin textbook which emphasized what later became an increasingly popular inductive approach instead of the common grammar-translation approach to language education. In particular, Comenius implemented a very advanced method of situated dialogue (Danesi, 2000, p. 3)³. The second was the most important of the first pictorial textbooks. Also this was a revolutionary pedagogical innovation⁴ where he combined the useful and comprehensive knowledge of the world and society to language learning so that there was on every page a thematic picture with numbered details linked to

an explanation in the mother tongue and in Latin. All 151 pictures were organized so that they should create a coherent world view. Both of these textbooks were widely used and translated into many languages and remained in active use at least to the end of the 19th century.

The third book was a practical and theoretical handbook for educators⁵. In this book – also translated into many languages and used in teacher education – he systematically shows that education must take into account and follow the natural development sequence of children (Piaget, 1967). He then offers simple and still quite up-to-date practical principles on how children of different ages should be taught. In addition he describes the appropriate ways to teach different types of subjects. What was perhaps most revolutionary – and most difficult and impossible to realize in those times – was his program of the four stage comprehensive school system. Every child – of both sexes and all classes – should get the proper school education at least in the three first levels: early education, basic level and secondary level schools. Every gifted child should still have the chance to continue into the fourth, university level.⁶

These kinds of mostly didactic innovations connected to teaching, instruction and the school system, are the most famous achievements of Comenius in the educational sphere and they are also the reason why he has usually been regarded as the father of modern education. However these contributions make up only part of his great work and it can be claimed that when they are detached from the whole they turn into mere technique which is not in harmony with his basic intentions (Schaller, 1962). Second, these questions are not those that I would consider as *Bildung* theoretical in the first place.

BILDUNG

The use and meaning of the concept *Bildung* in German stems back to the Bible and Middle Age mysticism. According to Genesis 1:26, a human being was created to an image (German: *Bild*) and similarity of God⁷. Because the Ten Commandments forbade the making of an image or statue of a God, this apparent similarity should be thought as something internal rather than external. Yet in 2 Corinthians 3:18, it is written that those who reflect the Lord's glory are transformed into his image. Understandably it became a problem that although humans may initially be created to an image of God, at least after the Fall, they are not a true image any more. The Christian mystic Meister Eckhart (1260-1328) – leaning also in Neo-Platonism – then changed the corporeal and material meaning of the word *Bildung* (form, appearance) to a more spiritual level as an aspiration to become more like one should be, to the imitation of Christ (Lichtenstein, 1971). Later in 18th the concept of *Bildung* became central in German discussion on education, but its meaning has gone through some transformations described in some of the articles of this book.

For Comenius, and for this article too, the older Imago-Dei meaning of *Bildung* – the task of a human being to be as truthful to the image of a God as possible – is extremely important. However there is, so far, nothing to indicate whether he had actually used this concept, as his main original writings are in Latin and in Czech⁸. It is important not only as, or even mainly as, a

theological question but rather because the idea of an image and picturing – in more modern semiotic terms *iconicity* – is structurally central to all his thinking, from ethics to scientific methodology and learning in general. I will return to this question later.

This theological basis for Comenius' thinking is so strong and dominating that one of the most important Comenius scholars, Klaus Schaller, has asserted that his *Bildung* theoretical thinking is not at all modern and only apparently anticipates our modern pedagogical thinking (1962, pp. 14, 159). By this he refers to modern educational thinking which is humanistic in an individualistic manner. Modern educational thinking begins and ends with the human individual and his/her reflective power. This individual freedom as the main object of education attained its highest level in Kantian thinking and gave rise to the famous pedagogical paradox: "How is it possible to cultivate freedom by coercion?" (Kant, 1992)⁹

The division of educational questions and theory in the continental way, between *Bildung* theory and *Erziehung* theory can be seen based just on that pedagogical paradox. Still, it is neither necessary nor fruitful to stress too much the deep metaphysical dualism between freedom and coercion as the opposition of reason and causality or mind and matter. Rather it can be seen as a conceptual difference between process and action concepts (Oelkers, 1985). Teaching and educating would then be *Erziehung* theoretical action concepts; learning and growth *Bildung* process theoretical. What happens and what should happen in education – partly as a result of and partly in spite of educators' planned acts – is *Bildung*.

Thus the theory of *Bildung* has the following questions. 1) How does learning or growth in education (which includes that outside of official education) occur and how it is at all possible? 2) What should be learned or in what direction should the growth change the learner? Both questions are intimately connected with our image of human being, because we are usually or mainly interested in human *Bildung*. According to the classical Comenian-Kantian dictum, a human being becomes human only through education and thus the main task of education is to transform a being into a human being. So the answer to the second question is that the learner should become human. The answer to the first question is that learning and growth should happen in a human way. This is of course another side of the paradox of pedagogy: how can a human become a human. For this reason it is perhaps better to say that *Bildung* is "becoming more human" or that it is "growth *as* a human being."

The problem of *Bildung* can and should separate into two areas so that we may approach it on the one hand from the side of the individual learners and on the other from the side of humanity as a collective, whether from broader communities like nations or societies or from the ultimate community, human kind (Benner, 1996, pp. 104–106). From the individual point of view the central concept has been *Bildsamkeit*, the assumed possibility for growth. Nevertheless, for this article, the question of communal *Bildung* and the growth of human kind is more difficult and interesting. Thus *Bildung* means the development of human culture, of which, for example, the scientific research is a seminal part.

The starting point for Comenius, just as for Rousseau later, was that a human being is innocent at birth and that the main duty of education (like

politics) is to forestall their tainting. Here we see the strong emphasis of the principle of *Bildsamkeit*, later important to Herbart. The etymological origin of this concept connects with the idea that, after all, a human being is created in the image of the highest reason. “[O]ut of every human being, if he be not utterly corrupt, a man can be formed” (Comenius, 1907a, p. 85).

It seems that the pedagogical paradox does not arise as an actual problem for Comenius. For him, the freedom of the individual is necessary but only as a part possible as a part of the freedom of all human kind. Freedom is always “rational freedom” for Comenius (as it is for Kant): the obedience of universal rational principles set by God. Because the material side of the human follows the same principles as the mental side – here Comenius was a strong critic of Cartesian dualism – it is only natural that a human being obeys these principles and acts wisely and well if nothing prevents it (Vliet, 1994, p. 91). The education and the whole reformation program of Comenius aims only at reducing these obstacles.

COMENIUS AND THE FOUR AGES OF UNDERSTANDING

Comenius lived at a very peculiar turning point of history when the medieval, premodern world was slowly giving way to that what we call the modern world. He contributed to change but clearly he was trying to steer the changes in a somewhat different direction than they eventually did. John Deely has analysed the development of philosophy from the special angle of semiotics in many books (especially the block of a thousand pages: Deely, 2001a) and demarcated the “four ages of understanding”. The first is the Greek philosophy, which was mainly physical or ontological i.e. directed to the reality which was independent of human thought and action. Semiotically, the concept of sign (*semeion*) was understood merely as a symptom (156-157). The second age of understanding, which Deely calls the Latin age, proceeds from Patristic and Augustine to St Thomas and especially John Poinsett. The hallmark of this era was that it slowly but clearly broadened the ontology to include cultural reality, from *ens reale* to *ens rationis*, and manage to overcome their opposition with the new semiotic concept of *signum* (482-483).

The special methodological character of the “Latin age” was its coherence and communicativeness, which based itself on writing all new proposals as the commentaries of predecessors. This has made it sometimes difficult to see the advances and controversies of the time. Most important of these was the controversy between nominalism and realism. Deely’s hero of that time (perhaps of at least all the three first ages) was John Poinsett (1589-1644) who chose the realist side of the controversy – especially that of the existence of relations – and managed in this way to create a triadic concept of sign: Sign is a relational process where the middle term relates the object term to the subject term independently of the ontological type and existence of these terms. But at least this relationship must exist: it cannot be a subjective creation of a knowing mind as nominalism claims. Thus the concept of truth could be systematically clarified “as conformity knowable in the structures of objectivity between thought and things” (Deely, 2001b, p. 483).

The next age is the Modern period, which Deely defines, by means of a dictum from Locke, as a “Way of Ideas.” The originator of this stage is René

Descartes (1595-1650). Briefly, the most important peculiarities of this new era are the following two features and, especially, the discrepancy between them: Firstly, science started an enormous growth, based on new and special research methods relying on mathematics and empirical tools. These special methods (*ideoscopic* as Deely calls them) began to replace the earlier general method philosophy (*cenoscopic* in Deely's parlance) (Deely, cop. 2008, pp. 3–15). Secondly, the philosophy assumed the nominalist stance which, on the one hand solved some conceptual problems of epistemology but on the other made ontology and knowing in realistic sense impossible. So a Janus-faced culture was formed with the Dr Jekyll of science and Mr Hyde of philosophy (Deely, 2001b, pp. 565–567). From the semiotic point of view, what becomes central is that signs could refer only to other signs, not to reality, as there was nothing in such general in reality which could be referred to. Also characteristic for this age are deep dualisms not only between the knowing subject (*gogito*) and known object (*res*) – between mind and matter – but also between knowledge about nature (*ens reale*) i.e. speculative or theoretical knowledge and knowledge about human reality and action (*ens rationis*) i.e. practical knowledge.

Deely calls the fourth age, which is still in the process of becoming, “postmodern” – at the same time stressing a clear distinction to the “literary postmodernism” (Lyotard, Lacan etc.) which for him is just a straightforward inheritor of modern idealism (Deely, 2001b, p. 611). The postmodern age begins in earnest with Charles Sanders Peirce (1839-1914) who in developing his *pragmaticist* philosophy begins to study historically and philosophically the works of the Latin age; choosing the realistic stance and renouncing the idealism and nominalism of modern thought¹⁰. This choice made it possible for him to invent and develop his famous triadic concept of sign and the doctrine of semiotics on which it is based. This is a promising development for overcoming the dualities and discrepancies of modern thinking¹¹.

After this lengthy detour, we can now return to Comenius and assert that he was not an expounder of the earlier age¹² – although he stressed the importance of historical and traditional knowledge; neither was he, however, a herald of the modern age. Perhaps it may be said more generally that the marriage between modernity and educational thinking (theory of *Bildung*) has always been an uneasy one. Dualisms are, for education, more a problem than a starting point¹³. I will next take up three aspects of Comenius' thinking which are central to his ideas about *Bildung*. First, his anti-dualistic and holistic world view; second, his historical, empirical and communicative research methodology, or *syncretical* methodology; and third, his realistic view of relations, or triadism. All these are important structural parts of his pansophic worldview, which is basis for his reformation program of mankind – all of which *Bildung* should perhaps be.

ALL FOR ALL AND THROUGHOUT

The essence of Comenius' conception of *Bildung* is captured in his famous slogan: “*Omnes omnia omnino*” – “To (teach) everyone everything throughout”. This perfectionist formulation combines succinctly the main principles of Comenian philosophy: *pansophia*, and his pedagogy: *pampedia*. This whole

can be studied as three principles (Comenius, 1970, p. 234; K. Schaller, 1962, p. 222).

Omnes: Education is meant for everyone human being, independently of any differences. Rather than seeing all single persons as a collection, this principle strives for the idea of human kind as one whole. Here we see the rise of many unrealised modern revolutionary ideas – from the general school system to the international community or the global village.

Omnia: Education must consist of everything that is needed for good living. The whole universe must be the subject of education. Here Comenius believes that the whole universe, from the viewpoint of a human being and God, is totality, which can be known and taught as a whole. Here Comenius is in the intersection of, on the one hand, the theological and neo-platonic view of the universe as an ordered whole of concentric parallel circles, and, on the other, the view of modern science of the world as only empirically knowable.

Omninó: This principle refers to the method and aim of education. The education must not be superficial but deep and thorough. The aim of education is not to teach knowledge and skills as such and only for a utilitarian objective. Education has a dual purpose: it has a mundane purpose, which is after all a medium for a divine goal. First, the essence of humankind as an image of God must be realised on earth. This requires that intelligible, moral, practical and other human features are perfected and that life on earth is appropriately ordered. The ultimate goal of education is the eternal realm of heaven.

The basis for the integrated curriculum that Comenius developed was his view of the world as one coherent whole. This starting point makes it possible to try to dissolve the contradiction between formal and material education. Comenius thought that a human being should learn all the things of the universe. This would be an irrational objective because of the infinite size of the world, but because of the coherence of the world it is possible to proceed in this direction. Comenius gave more than one formulation to the idea of how the world is one whole. In his *Pansophia*, the system of human wisdom, he gives the following structure:

1. Possible world (of thinking)
2. Ideal world of archetypes
3. World of angels, as intelligibility outside of human beings
4. Material world of nature
5. Artificial world created by human beings
6. Moral world of human relations
7. Spiritual world of religious relations
8. Eternal world of the God

These levels of the world form a circle where the last step leads to the first one (Hofmann, 1970, pp. 32–35; Sadler, 1969, p. 24). I would point out one interesting feature here: this world is human centred and human action is an important shaper of the world. Here we can see the main features of the modern theories of human action: the creative thinking (manipulating of possibilities), the constructive nature of action and importance social relations.

COMENIAN RESEARCH METHOD

Comenius openly and harshly criticized the main scientific enterprises of his day, namely the Royal Society and the philosophy of Descartes. He had close relations with both. In about 1640, he received an invitation to London to work out his reform plans for scientific but also for moral, educational and theological areas. The English civil war interrupted this project and Comenius was forced to leave London, but the people who invited him and partly maybe this episode, too, were affecting the creation of Royal Society two decades later. In England Comenius started to write a book *Via Lucis (Way of Light)* which remained unpublished at that time. During his travels he met Descartes and, at first, they had a quite warm and interesting relationship. However, Comenius soon began criticising both central projects of modern science, mainly because of their one sidedness. (Voigt, 1998)

In 1668, Comenius decided to publish *Via Lucis* (Comenius, 1997). He dedicated his publication to the Royal Society and even sent them a book. In this book he outlines his more holistic view of science and the scientific method. Part of this methodical view is his concept of history. In Descartes' method there was no place for history: God is eternal and unchanging and He determines everything. In nature everything is mechanical and contingent, following the will of God, which is unknowable to human beings. Human beings then are problematically situated and divided between: one side of them is pure mechanical nature and the other unchanging spirit, which has an ability to know and command the nature side. The method of science and generally knowing is then simply observing the mechanical features of nature (Descartes, 1968).

In opposition to that unhistorical methodology, narrowly restricted to a knowledge of nature – a restriction based on methodology by Descartes and on the more contingent reasons and decisions by the Royal Society – Comenius introduces his own methodology. He employs the common book metaphor and states that we must study three books: the book of nature, the book of the human being i.e. our inner selves and the book of God, or, more precisely, the Holy Scriptures. In addition, these three books should not be used separately but in conjunction with each other and secondly they are all historically changing and developing. Comenius called this method *syncritical* (Comenius, 1970, p. 115; K. Schaller, 1962, pp. 44–46). We have now seen what kind of whole the object of this research is, the whole pansophic wisdom. What should be pointed out is that “nature” to Comenius does not mean the non-human area of reality but rather all that can be empirically studied; it therefore contains the areas of human and social sciences.

REALISM OF RELATIONS AND THE SEMIOTIC BASIS OF *BILDUNG*

In the Introduction to the German translation of *Via Lucis*, Erwin Schadel writes that the detailed interpretation of Comenius' linguistic ontological theory would be an important inspiration for concurrent triadic semiotics (Schadel, 1989, p. XI). Comenius' entire program of *Bildung* and pedagogics is based on an assumption that it is possible for a human being to know the

world and the things in it. This possibility rests on the holistic view of reality: we are part of the whole reality and in relation to other parts. "All real can be known ... if it is not self-evident beforehand there are surely some distinctive signs visible and only some effort is required."¹⁴ It must be underlined that gaining knowledge is not straightforward and self-evident. Rather Comenius is thinking about a fallible research program¹⁵. This becomes apparent from his critic of Descartes, that all human knowledge which is based on the senses and on the reasoning applied to them is imperfect and defective (Comenius, 1975, p. 157). It is only possible to create secure knowledge through the syncritical method.

The relationality of Comenius' thinking is mainly visible in the attempt to develop the triadic categorization into the basic structure of his philosophy. Here we can see a close affinity to Peirce's concept of sign function and Peirce's later triadic phenomenology. It is apparent that for Comenius the triadism is not so much a conceptual achievement but more a Christian triune doctrine. However, he develops it conceptually in different directions and employs it at many levels (Schadel, 1989, pp. 209–246). His last theoretical book *Triertium Catholicum*, General triune, (Comenius, 1922)¹⁶ in particular, is devoted to this question. Its starting point is a triadic view of human knowledge with mind, language and hand as its sides of the triad. Each of these sides has a corresponding science: logic, grammar and pragmatics, where the last reinvestigates the principles of good action.

Comenius' general idea of human growth i.e. *Bildung* is connected to the triadic semiotic schema where God is a primeval image (*Urbild*), nature is a likeness image (*Abbild*) and culture is a contra image (*Gegenbild*) (Schaller, 1962, p. 36). This schema is, in a way, circular just like the pansophic worlds or levels mentioned before. The original image is first a possibility (as a God's plan), then it flows intelligibly to the material world, from where it is to be learned and realized by human action which then flows, via religion, back to the original sender. In this way, the responsibility of a human being in the world is not only to learn or grow by him or herself but also to take part in the creation and care of the whole reality.

CONCLUSION

In the end, one could claim that Comenius is part of modern *Bildung* theoretical tradition, not as a straightforward forerunner but rather as a quite distant, and yet unknown, discussion partner offering remarkable alternative points of view. Outside of the German and Czech languages, in particular, the discussion of Comenian alternatives has long been rare. From German discussion I would like to mention Schaller's attempts to link Comenius with the discussion on critical pedagogy as a forerunner of communicative pedagogy and communicative reason (Schaller, 1987; Schäfer & Schaller, 1976). Perhaps communicativeness is the most central and stable structural element in Comenius' thinking. It is visible for example in his syncritical method, the idea of fallibility, the mind-action-language (SAL: Sapere-Agere-Loqui) triadic, the area of *panglottia* (development on languages, language learning and universal language) and at last the name of his utopian main work: *Consultatio* (not a ready-made program but a move to discussion).

Nevertheless it must be noted that for Comenius the world and its bettering is one whole. So it is as wrong to concentrate on only the principal *Bildung* aspect of his thinking as it has been to concentrate on only the didactic and schooling aspect in the history of modern educational thinking.

NOTES

- ¹ He has also been a very important ideal for Unesco International Bureau of Education.
- ² Good overall introductions to Comenius' biography are for example: (Pánek, cop. 1991; Sadler, 1969; K. Schaller, 2003); especially interesting and important is the translated self-biography with a good introduction: (Comenius, 1975)
- ³ Later he wrote even pedagogical dramas (Comenius, 1907b)
- ⁴ Quite comparable to modern ideas of educational multimedia shows (Pikkarainen & Kivelä, 1997)
- ⁵ Comenius developed his didactical system further (Piaget, 1967) in a still more important but not so widely known *Analytic didactics* (Comenius, 1953) which was written as part of a larger book *Newest method of language learning*.
- ⁶ This is a practical and institutional school program but in a theoretical level Comenius later broadened the school concept to the whole life of human from birth to death thus anticipating strongly the modern lifelong learning conceptions.
- ⁷ In latin: "ad imaginem et similitudinem nostram"
- ⁸ In German translations of Comenius' texts the term *eruditio* is usually translated to Bildung. This is quite correct when Bildung is thought as current everyday German, but perhaps not so much if we are interested in theoretical concept of Bildung, because erudition or scholarship is just part of Bildung.
- ⁹ Already Herbart criticized Kant's unnecessary strong dualism which would make educational action simply impossible.
- ¹⁰ It must be noticed that he also explicitly resigned the "pragmatism" of his students and colleagues as just a manifestation of the ahistorical and nominalist modern thought (Deely, 2000, pp. 12-14).
- ¹¹ The possibility of this invention is thanks to the unhappy fact that the writings of the first inventor Poincaré were so much lost and unknown that neither the representatives of modernity nor Peirce had an opportunity to read them.
- ¹² One of the features of modern philosophy was the substitution of Latin for national languages. Comenius started to use the Latin language – and became a famous cosmopolitan – partly because of situation, but still he appreciated it as a language of scholars and actually he planned and strongly propagated the program of development of a new universal language for all peoples to use both in scholar and practical communications (Nöth, cop. 1990, p. 272).
- ¹³ Comenius can also be situated in the beginning of the tradition of pedagogical realism, which was not only critic against the former verbalism of education, but also critic to one sided views of human as either causal mechanistic system or absolutely free spirit (Döpp-Vorwald, 1971).
- ¹⁴ Comenius in *Pampaedia*, cited and slightly interpreted from (Schaller, 1962, p. 22). This citation is connected to Comenius' view that principles of being are the grounds for knowledge and so all knowledge is of principles. This means also that for knowing a thing it is not enough to recognize and analyse its empirical properties, but also its place in the whole system of being and furthermore yet its value or aim, or the proper way to use it.
- ¹⁵ The possibility of error is also present in educational action: "Even a cautious student finds it impossible to avoid error at first." Just because of that is the instruction and systematic didactics necessary. (Comenius, 1953, p. 101)
- ¹⁶ This book is unfortunately yet only in Latin, only small part of its beginnings is translated in German in (Comenius, 1992, pp. 188-206). *Via Lucis*, *Janua Rerum* and this book form a trilogy of Comenius' metaphysical theory. The first one is the method; second one the systematic contents, i.e. pansophic knowledge; and that last one considers the utilization of this theory.

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