

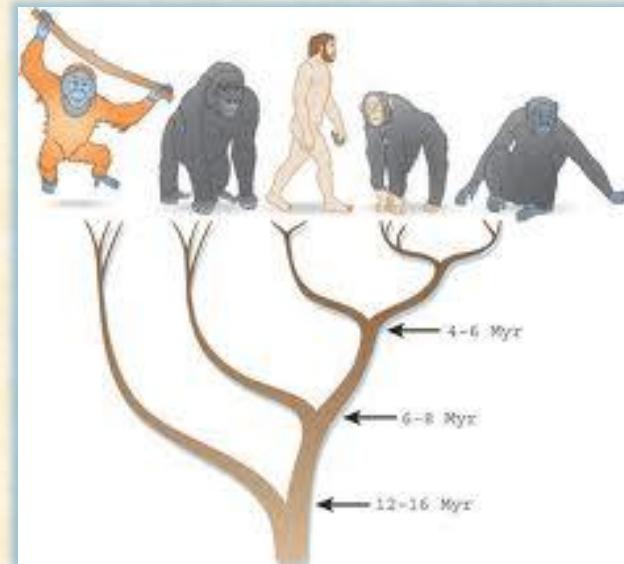
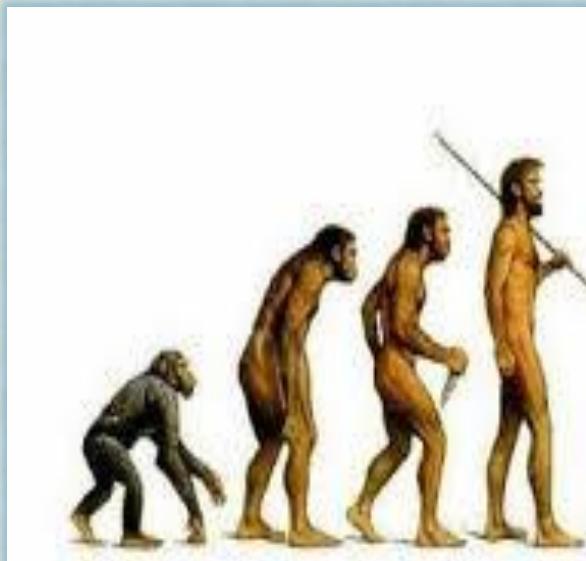
Lib) Human & Animal Education. By Dr Robert Rose

As pointed out in the previous power point, Human and Animal studies is the first topic in Natural Science education. In Steiner education settings, the Human – Animal curriculum is a complex topic encompassing the inner and outer aspects of the human being in relationship to the inner and outer aspects of animals. In today's context, the whole question of animal suffrage and their rights have their root in the question of their outer and inner life of feeling and sentience and the degree to which people have been educated into understanding and accepting these. Additionally, educating about the place of a healthy human existence within the natural world is important in Steiner / Waldorf settings. There will be the following perspective considered in these power points:

- 1) The pedagogical process of teaching from the whole human being to the individual animal species.**
- 2) Human physiology as a three fold whole.**
- 3) The pedagogical relationship between inner human experience and outer animal form.**
- 4) Inner to inner relationships between animals and humans and the moral significance of animals from the point of view of pedagogy.**
- 5) The question of human bodily existence in the context of nature as a whole.**

It needs to be noted at this point that there are some unusual elements to Steiner's recommendations for human – animal studies. Whilst it is intended that this field of the curriculum is an introduction to **human physiology** and **animal zoology** in the spirit of modern science, it also includes a basic grounding in comparative **psychology** between humans and animals. Some of the expressions of the latter may appear contentious to some, i.e. designating certain species with particular psychological qualities such as kindness vs cruelty. However, Steiner's suggestions were not meant to be prescriptive, but only points of departure for teachers to make their own discoveries in terms of animal psychology, or as Steiner put it "soul qualities". Steiner's intention here, as we have discussed earlier, is not to just present outer scientific facts to children, but it is also a **pedagogical** one: to educate the **inner capacities** of the young where they can begin to sense an **inner affinity** with the animal world. It is this sense of "belonging together" of the human and animal that may be understood as important here.

Another point needs to be made concerning the comparison of the evolution of human and animal natural forms. In mainstream biology, the popular image is of the human being evolving from ape-like creatures preceded by a long chain of evolutionary branching points such as represented in the following images. The one on the left is the popularist representation, the one on the right is the one accepted by most scientists:



The current theory is that the human being has a common ancestor with all apes, not that the human being evolved from apes like the ones existent today (as in the first picture). According to modern science, today's apes and humans are considered to have branched off from a common ancestor at sometime in the evolutionary past from beings that looked similar but different from any of those types of beings today (as in the second picture).

From a pedagogical perspective, the process described by Steiner is from a certain point of view the opposite to this: animals are to be described are to be analysed from out of the human being. The thought process and method here are quite different from mainstream **evolutionary** biology. The thought process involves a comparison between biological forms within the **timeframe of now**, not backwards in time. The method is a pedagogical one in that the attempt is to help the children form a deeper connection between the human and animal realms. For Steiner, humans are the least adapted of living creatures, so it was logical for him that the pedagogical method required the seeing of specialised creatures being derived from a more general one (the human). The process that Steiner describes is not an evolutionary one in this context, but one of the logic of morphological derivation of contemporary living forms. The primary point being, however, that pedagogically the aim was to enable the children to develop a deep feeling of connectedness with the animal world. This was to be achieved through the analysis – synthesis process in the comparative anatomy of contemporary animals.

From Human to Animal Form, Analysis to Synthesis

Steiner's concept of holistic education is equally applicable to human and animal studies. As we have seen a number of times, the activity of teaching is conceived by Steiner as a process from the wholes to the parts and back again. In this particular context, the human being is interpreted as the whole and the animal species are the individual parts:

“And so with all the other **organs** you can find that the human being’s external figure has in a **modified harmonized form** what is distributed among the animals... The whole animal kingdom is a giant human being, not brought together in a synthesis but analyzed out into single examples.” Steiner, R: *The Kingdom of Childhood*, p. 45. (My bold and italics)

As can be seen, we have another version of the analysis – synthesis process as we discussed in module 5. In this case, we are considering this for the education of human – animal relationships. This has a three basic perspectives:

The Three-fold Human Organism

Steiner made the case that nature studies should **begin** with a basic introduction to the Human Organism. This was to be the foundation not just for human physiology but also zoology. The teaching was to be directed to the comparative anatomy between humans and animals:

“On the other hand, we teach them that all the animal species in the world represent, in a sense, the path to human development... In a way that is simple, even primitive, we **first** call the children’s attention to **human nature**. This is possible if there is already an artistic foundation. They will come to understand, in a simple way, that **people have a threefold organization**. **First**, we have a head, a hard shell that holds the **nervous system** and the soft parts within it. The head may be compared with the round earth within the cosmos. We do our best to give children concrete, **artistic concepts** of the head, then lead them to the **second** member, the **rhythmic system**, which includes the **organs for breathing and blood circulation**. After talking about the artistic cup-shape of the skull, which holds the soft parts of the brain, we consider the series of bones that make up the **spinal column and the branching ribs**. We study the characteristics of the chest and its breathing and circulatory systems. Then we reach the **third** member, **the metabolism and limbs**. As organs of movement, the limbs are connected with and maintain the body’s metabolism, since their activities **regulate the processes of combustion**. Limbs and metabolism must be taken together and constitute the third member of the human being. First, then, we establish this human threefold division. If our teaching is imbued with the necessary artistic feeling, and if it is **presented in the form of pictures**, one can communicate this concept of the threefold human being.” Steiner, R (1923): *A Modern Art of Education*, Anthroposophic Press. p. 135. (My bold)

We might represent this in the following way:



Exercise

As an exercise, you might like to convert these ideas into a picture of the three-fold human being that would be suitable to children of this age (10th to 12th years).

You might like to consider how you would present this to the children.

From Humans, Analysis to Animals; from Animals, Synthesis to Humans

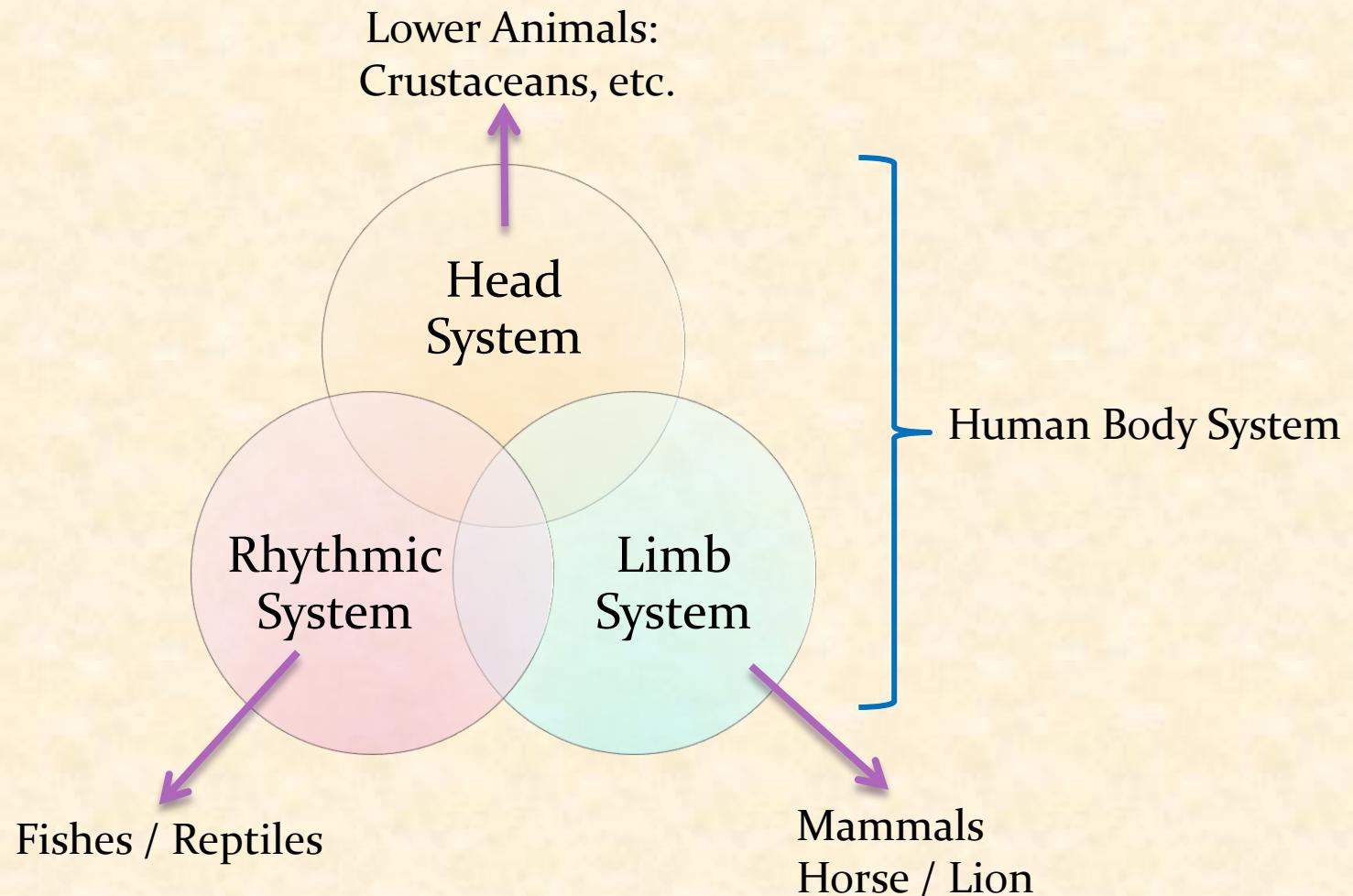
From out of this threefold understanding of the human being, Steiner goes on to describe the analysis to the different animal species or sets of species:

“Beginning with human body, we give children, in a simple way, an idea of the threefold nature of our being. Going on to animals, we describe the various species and how there is always an exaggerated development of particular organs, whereas in human beings those organs are united as a harmonious whole. This exaggerated, specialized development manifests in certain animals with the chest organs, in some the lower intestines, and in others the upper organs of digestion. In many forms of animal life (birds, for example), we find that certain organs transformed, such as those for digestion. We can describe how each animal species represents an extreme development of a human organ system. In a sense, the whole animal world manifests as a human being spread over the earth in diverse forms, with the whole animal kingdom as a synthesis.”

Steiner, R (1923): *A Modern Art of Education*, Anthroposophic Press, p. 135.

He then identifies the different types of species and their connection to the three-fold human being:

From: Steiner R: "Modern Art of Education", chapter 8, p. 135/6



For Steiner, though, the goal was not to stop at the kinds of animals that can be analysed from out of the three members of the human being, but to ascend, through a synthesis of the animal attributes, to the human being again:

“When this has been made clear to the child so that he understands that animal world as the human being that has developed its organic systems one-sidedly - the one system living on in this animal species; the other as that animal species - **then we ascend to the Human Being again.**” Steiner, R: *A Modern Art of Education*, Anthroposophic Press, p. 136. (My bold and editing)

We may represent this in the following way:

Wholes

Three – Fold Human *Body*

Analysis

Organs

Synthesis

Animal Species

Parts



Morphing the Form

Steiner makes a suggestion as to how this metamorphosis from the human to the animal forms can be understood:

“It is as though you were made of elastic which could be pulled out in varying degrees in different directions; if you were thus stretched out in one direction more than in others, one kind of animal would be formed.” Steiner, R(1924): *The Kingdom of Childhood*, Anthroposophic Press, p. 45.

He provides the following picture:



Exercise

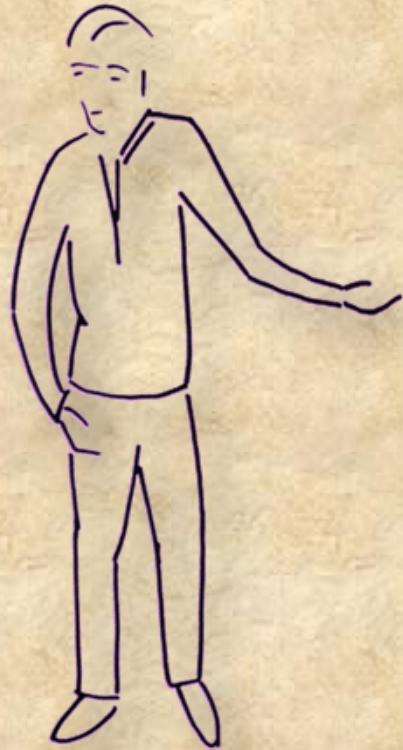
As an exercise, consider each part of the threefold human body organism and how each of them can be transformed into a particular animal form. Think about and practice how you could present this in drawing, painting and clay modelling.

From Inner Experience to Outer forms

In the previous section, we looked at how Steiner recommended the transformation of **outer** human forms to **outer** animal forms. Here, however, another method is suggested in that the outer animal forms and species are correlated to **inner** human soul experiences. This leads to another approach you may find in Steiner Schools: a way of looking into the animal kingdoms through the “archetypal” images of the Eagle, the Lion and the Bull. These in turn lead on to other creatures of similar type:

“Naturally, this cannot be conveyed to children in the way I am going to express it, but it *can be presented in pictures.*” Teachers who have a knowledge of their own **soul** body, **sounding inwardly in musical forms**, should view the human being and the various animal forms that exist in the world. They can then understand the deep meaning contained in an old instinctual wisdom, which represented the human being as a coalescence of four beings—three lower and one higher: **lion, bull, eagle, and angel.** *The bull represents an unbalanced development of the lowest forces of human nature.* Picture the forces in the human metabolic-limb system without any balancing forces in the head and rhythmic systems; in other words, imagine an unbalanced and prevailing development of the metabolic limb system. Here we have a one-sided formation that presents itself to us as the bull. We can thus imagine that if this bull nature were toned down by the human head organization, it would develop into something like the human being. If the central rhythmic system is developed in an unbalanced way—for example, through a contraction of the abdominal system or a stunting of the head system—we can picture it as lion nature. If, however, there is one-sided development of the head organism in such a way that the forces otherwise existing in the inner part of the head push out into “feathers,” we get a bird, or eagle nature. If we imagine forces that enable these three qualities to harmonize as a unity that can manifest by adding the angelic fourth, we get a synthesis of the three—the human being. This is a schematic way of presenting these things, but it shows our human relationship to the surrounding animal world. **In this sense; human beings are not related just to the bull, eagle, and lion, but to all earthly animal forms.** In each animal form we can find an **unbalanced development of one of the organic systems of the human being.** These things were alive in the instinctive wisdom of ancient times.” Steiner, R (1924): The Essentials of Education, Anthroposophic Press, p. 172/3. (My bold and editing)

Pictorially, we could represent the outer aspect of this in the following way, the slides thereafter indicate a few connections to the animal groups:



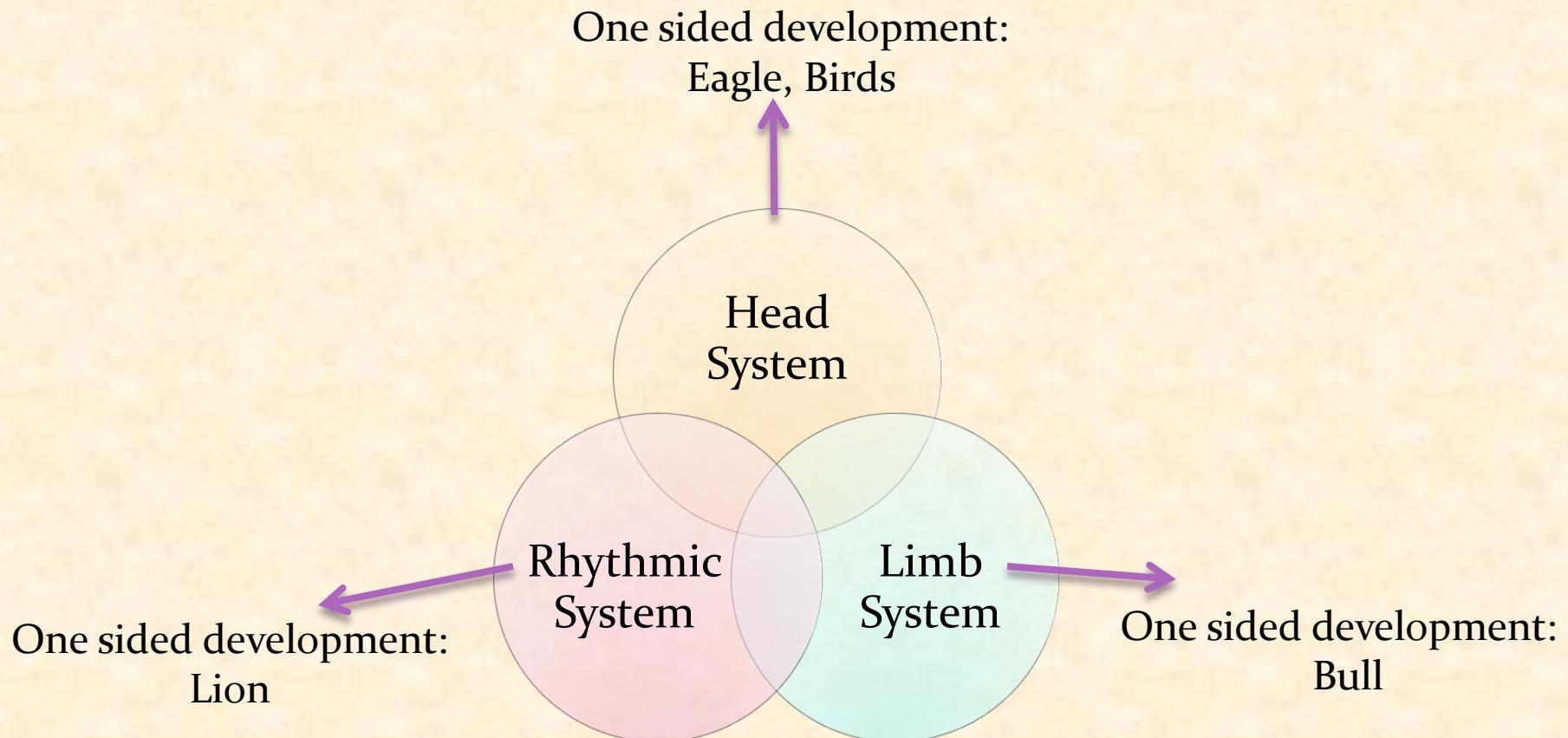
By Scientist & Artist Jochen Bochemuel











Steiner then describes a sequence for zoology education rising up to our closest relative, the ape:

“Then we must arouse in the children a sense for what is the most perfect part of the human being’s **external** form. The human being is most perfect in the **limbs**. If you follow the **sequence of the higher animals** up to the **apes**, you will find that the forelimbs are not so very different from the hind limbs and that the main function of all four is to carry the trunk, move about with it, and so on. This marvellous differentiation of the limbs into feet and hands, legs and arms, happens only in the human being; it expresses itself in the predisposition to walking upright and having a **vertical posture**. No animal species is so perfectly structured as the human being with regard to the complete organization of the limbs. **Here you should introduce a really vivid description of the human being’s arms and hands.** They have no part in carrying the organism; the hands do not touch the earth with regard to anything to do with the body, and they have been transformed in a way that enables them to grasp objects and undertake work. Then you move on to the **moral** element, which has to do with the **will**. Awaken in the children through their feelings, not in theory, a strong **picture**... There is no more wonderful symbol of human **freedom** than these arms and hands””. Steiner, R (1919): Practical Advice to Teachers, Anthroposophic Press, p. 98/99. (My bold and italics)

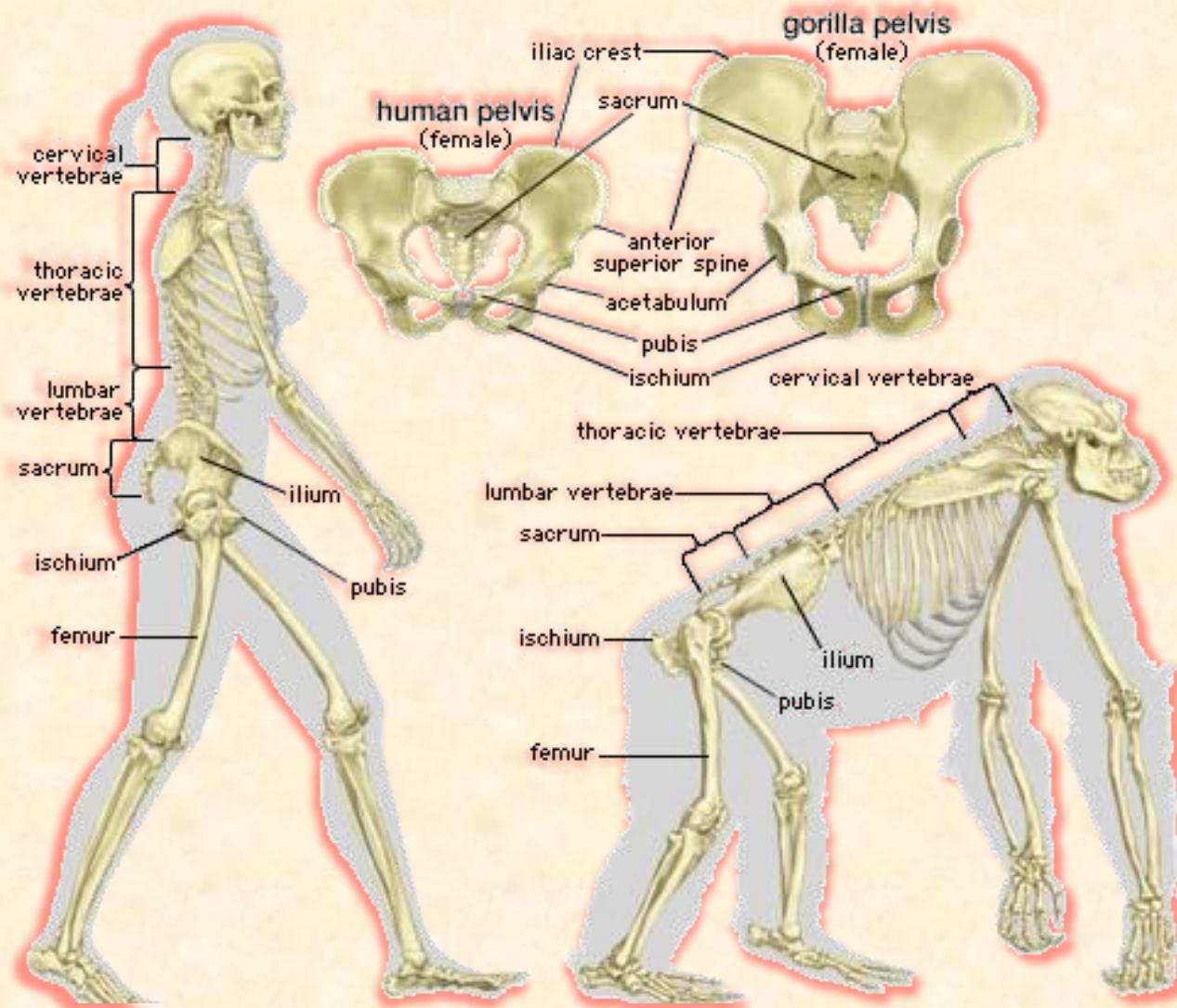
As described earlier, Steiner wanted the teaching process to be both analytic **and** synthetic, not just one of them. One can see in the previous quote that the “ascent to the human being” represents a particular type of culmination of the synthetic part of the process. The goal is to present to the children the unique nature of the human arms and hands and the connection to the reality of **freedom**, especially in relationship to the outer environment. This cross connection between the anatomical and the psychological moral will is distinctive of Steiner’s educational philosophy: the human arms and hands are interpreted as the highest **outer** representation of human freedom. For Steiner, the way to do this is through a thorough education into the forms, function, practice and use of the human arms and hands in comparison with apes and other animals.

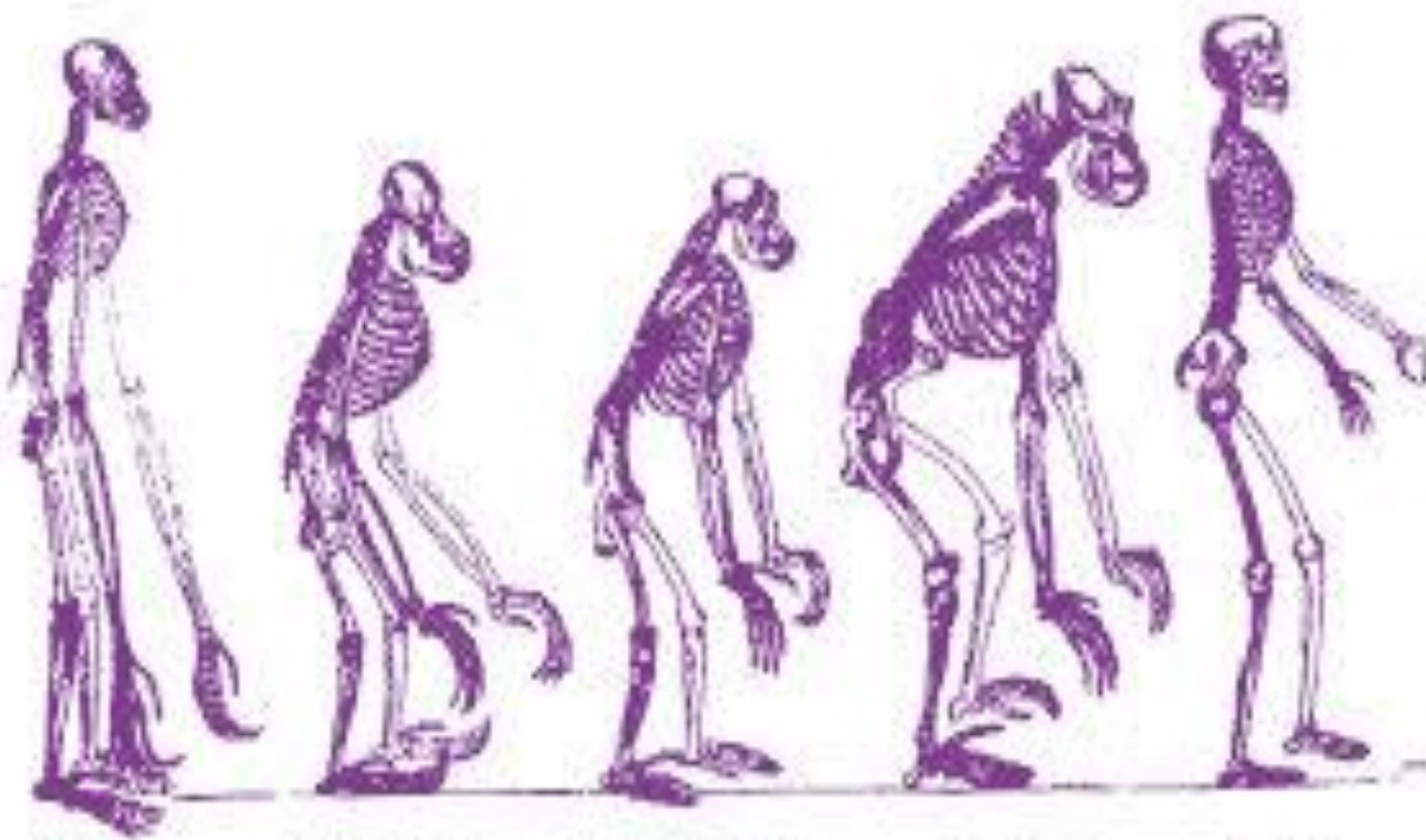
For those who are interested, Steiner also argued for “freedom of thought, feeling and action” in his book the “Philosophy of Freedom”. This presents another picture of his general views on human freedom.

Exercises

- 1) Think of a practical exercise that you could engage the children in order to present the importance of the human hand in relationship to freedom.
- 2) The next few slides make a comparison between the human skeleton and that of animals leading up to apes. You may like to do some drawings between the different parts of the animals, apes and the human. Try to draw or model, with clay for example, the gradual transformations. You may prefer to find similar pictures of your own to work with.

Human and Ape Skeleton





Gibbon

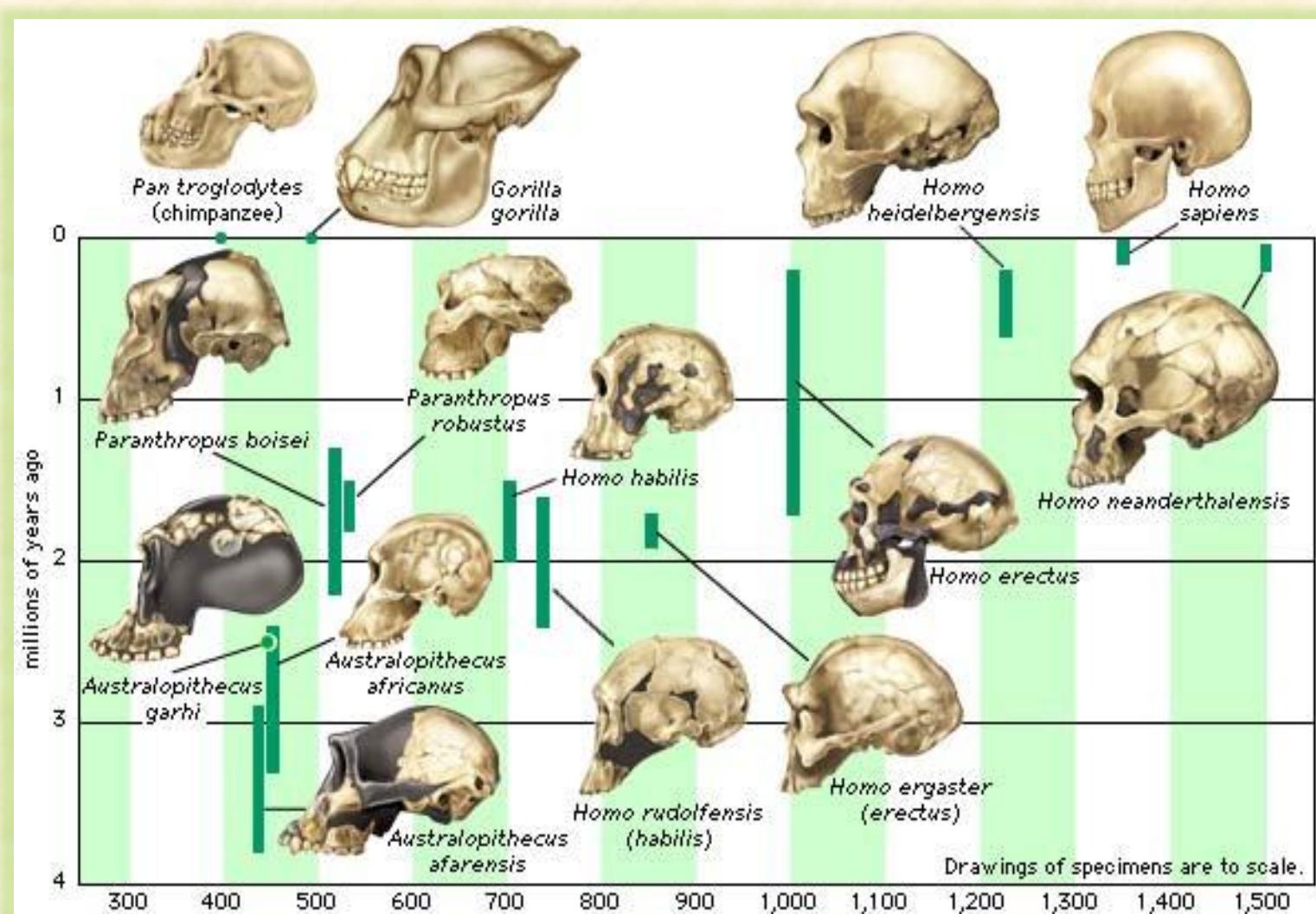
Orangutan

Chimpanzee

Gorilla

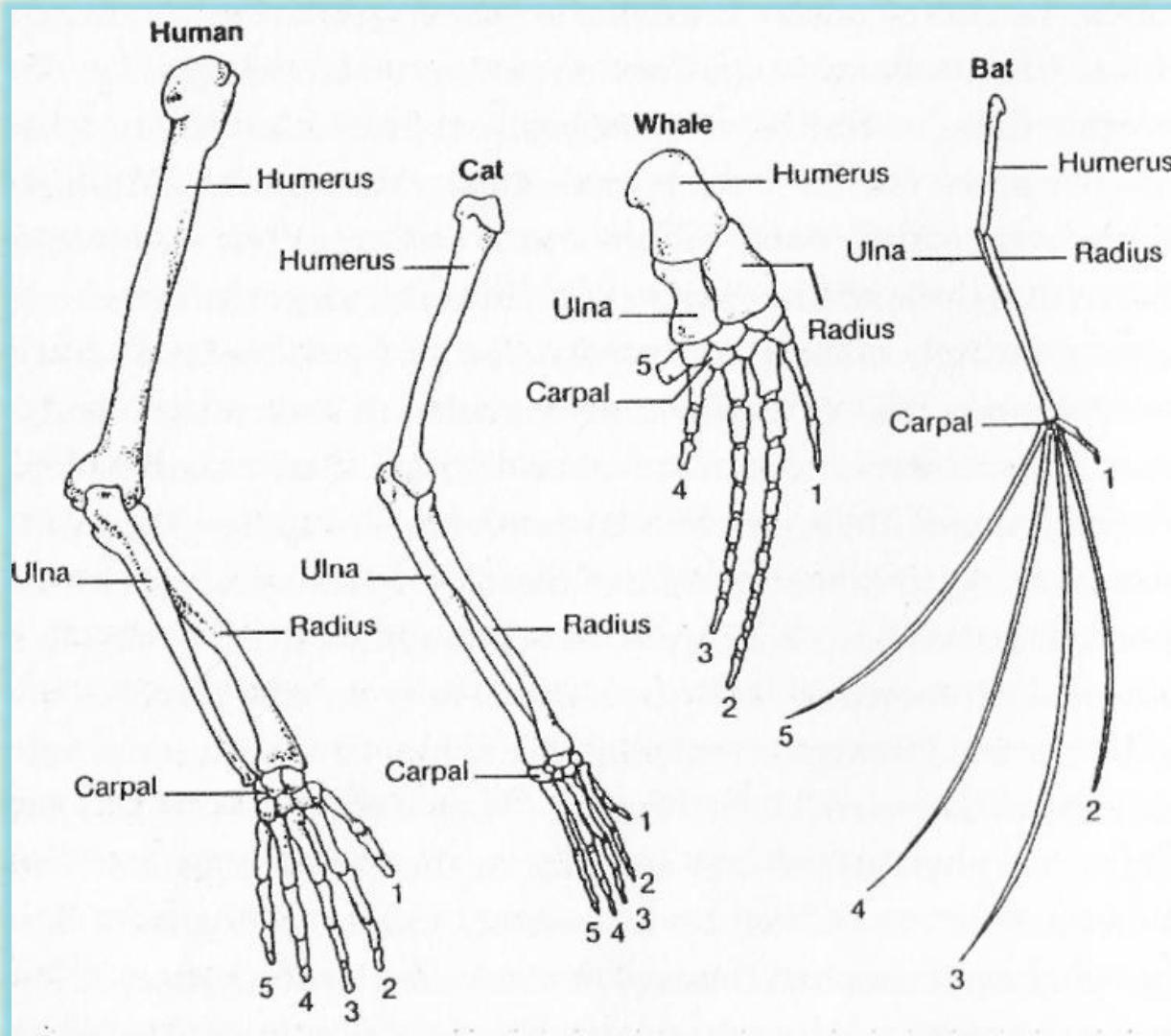
Man

Head

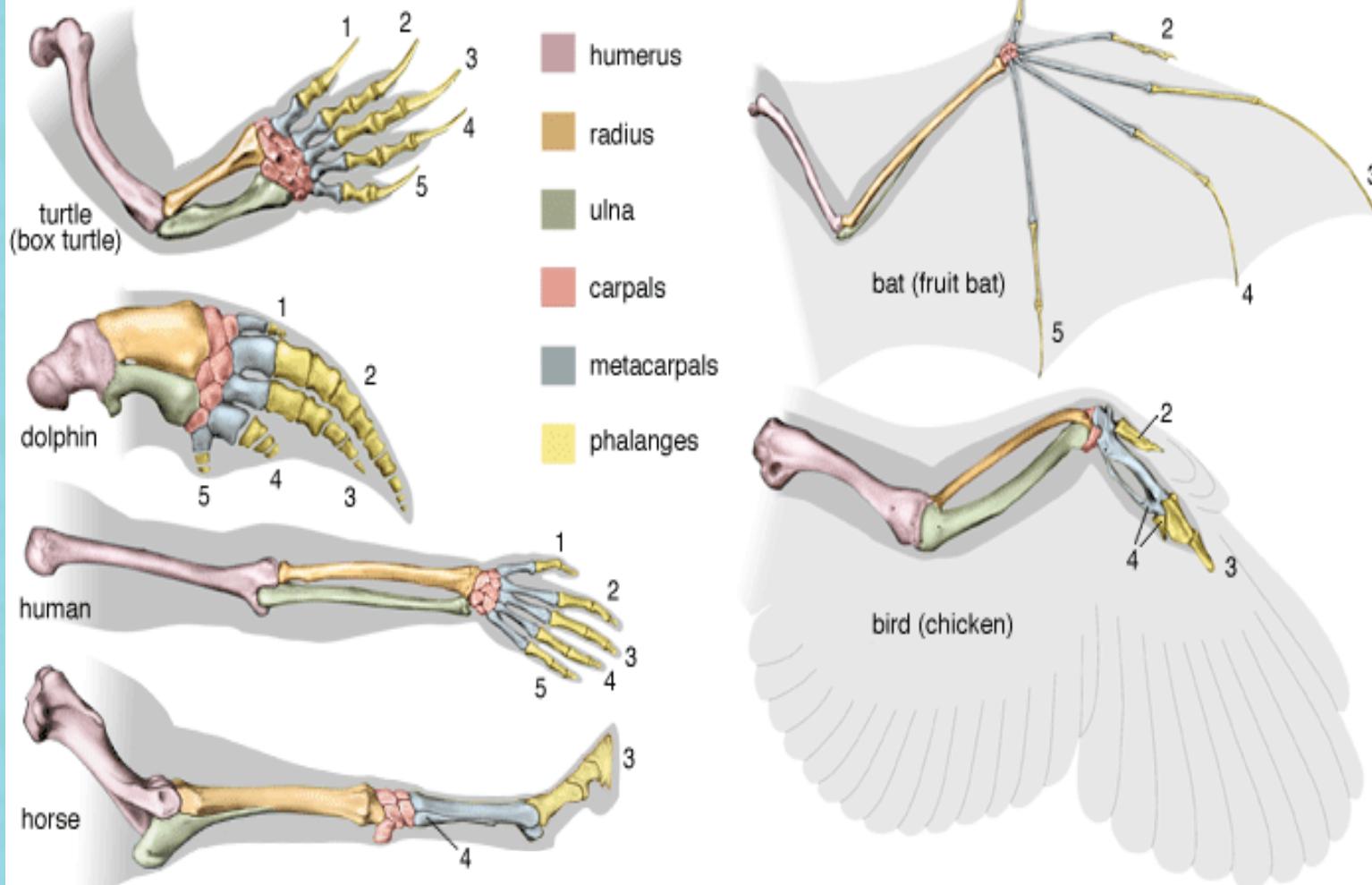


From Ernst Mayr: “What Evolution is”

Arms



Homologies of the forelimb in six vertebrates



Inner to Inner Relationships: Psychological and Moral Qualities of Humans and Animals

The next set of slides shows Steiner's position on the teaching about the inner soul life of animals in contrast to that of humans. This is potentially a diverging point from normal biology. (But see: Frans B.M. de Waal "What is an animal emotion?", *Annals of The New York Academy of Sciences*, Issue: *The Year in Cognitive Neuroscience*):

"Given the increasing interest in human emotional intelligence and the explicit attention in neuroscience to the emotions, both human and nonhuman, the taboo that has reigned for so long in animal behaviour research seems outdated, p. 191".

Steiner's suggestions are very general, so it would be worthwhile making some observations and deductions of your own of animals you know. See if you can come to some new thoughts about the inner life of animals. You may also like to think about how you could create a mini-lessons from out of what you discovered.

Steiner talked about the "soul qualities" of animals. By this, he meant their inner psychological tendencies comparable to particular human characteristics of thought, feeling and will.

From a method point of view, Steiner was keen to take the science of his day and extend it to realms of the inner life. This then can become a starting point for a zoology of the inner life of animals:

“But there is still a third book by Darwin that deals with the expression of **feeling**. To those who occupy themselves with problems of the soul, this work seems to be far more important than his *Origin of the Species and Descent of Man*. Such people can derive great satisfaction from this book—so full of fine observations of the human expression of emotions—by allowing it to work in them. It shows that those who have disciplined themselves to observe in a natural scientific way can also attain faculties well suited for research into the soul and spiritual sphere of the human being. It goes without saying that Darwin advanced along this road only as far as his instinct would allow him to go. Nevertheless, the excellence of his observations shows that a training in natural scientific observation can also lead to an ability to go into the **supra-sensory** realm.” Steiner, R: *Soul Economy and Waldorf Education*, pp. 34/5. (My emphasis)

The inner life of animals, according to Steiner, he describes as soul qualities but with moral attributes:

“When we come to examine the different animals that live on the earth, let us say according to their **soul qualities** first of all, we find **cruel** beasts of prey, **gentle** lambs, and animals of **courage**. Some of the birds are brave fighters and we find courageous animals among the mammals, too. We find **majestic** beasts, like the lion. In fact, there is the greatest variety of soul qualities, and we characterize each single **species** of animal by saying that it has this or that quality.” Steiner, R: *The Kingdom of Childhood*, p. 42. (My emphasis).

These soul-moral qualities he conceives as characterising distinct **species**. No doubt many contrasts of moral qualities could be identified across the species as well as within individual species. The above was intended to give a few examples only, the rest was meant for the individual teachers to discover themselves and find a pedagogical purpose for them. Of course, one could also question the rightfulness of Steiner’s designations and whether or not they were the wrong kind of anthropomorphisms. But this is for each teacher to decide within their educational intentions.

Remember, the aim of the zoology lessons for Steiner is pedagogical. For him, the point is not merely to present a number of scientific facts about animals (of course it did include this), but to help the children develop their inner life of Will imbued with moral qualities:

“Now what is really the truth about these soul qualities of humans and animals? With humans we find that they can really possess all qualities, or at least the sum of all the qualities that the animals have between them (**each possessing a different one**). **Humans have a little of each one...** When we think of this matter in the right way we can say that human beings have within them the lion-nature, sheep-nature, tiger nature, and donkey-nature. They bear all these within them, but **harmonized**. All the qualities tone each other down, as it were, and the **human being is the harmonious flowing together**, or, to put it more academically, the **synthesis of all the different soul qualities that the animal possesses...** The goal of the human being is to have the **proper dose** of lion-ness, sheep-ness, tigerness, donkey-ness, and so on; for all of these to be present in the right proportions and in the right relationship to everything else.”

Steiner, R: *The Kingdom of Childhood*, Anthroposophic Press, p. 43. (My bold).

In terms of our earlier image of analysis and synthesis, this now takes on another form for soul qualities:

Wholes

Three – Fold Human *Soul* Qualities

Analysis

Synthesis

Animal Soul Qualities

Parts



The pedagogical aim here is to help the children synthesise these moral qualities into their Will in an enhanced and harmonised way:

“A beautiful old Greek proverb says: If courage be united with cleverness it will bring thee blessing, but if it goes alone ruin will follow. If I were only courageous with the courage of certain birds that are continually fighting, I would not bring much blessing into my life. But if my **courage** is so developed in my life that it unites with **cleverness** - the cleverness that in the animal is only one-sided—then it takes its right place in my being... **With the *human being*, then, it is a question of a *synthesis*, a *harmonizing* of everything that is spread out in the animal kingdom...** The animal kingdom is the human being spread out, and the human being is the animal kingdom drawn together; all the animals are united synthetically in the human being, and if you analyze a human being you get the whole animal kingdom”. Steiner, R: *The Kingdom of Childhood*, Anthroposophic Press, p. 44. (My emphasis)

As was indicated in L1a, Steiner saw education about animals as being primarily directed towards the development of the Will in the growing child. Here it can be seen that this Will development is strongly connected with the inculcation of **moral character**. This is a perspective that we will reconsider from another point of view in module 7.

Exercises

- 1) Consider how you might devise a main lesson block of 3-6 weeks from out of these slides about the three-fold human being and the different types of animals.
- 2) Re-consider the summary table of the natural science part of the curriculum as presented at the end of L1a. Sketch out how you would design a series of natural science lessons across the eight years, bearing in mind the different learning methods for each sub-phase.
- 3) Devise a main lesson on the connection between human physiology, health and nutrition. Show how you might represent this pictorially.
- 4) Explore how you would design some lessons to show how the human senses are constructed and how they relate to the outer world of nature. Consider a range of senses.
- 5) How would you address the question of animal emotions in the context of a main lesson?