

Waldorf: Education or Indoctrination?

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(1) INTRODUCTION: THE QUESTION OF INDOCTRINATION

The following text concerns a discussion that has been going on for some time. Consequently, some of the discussion in this chapter is mildly historical, but the issues are still relevant to this day. The critical references have been around for a while, but the challenges were not sufficiently addressed, so the basic evidence and arguments presented here are relevant even now. In fact, most of the debates are ones that will keep arising until the conceptual space of public consciousness has a fair and just representation from the perspective of Waldorf and Anthroposophy. So Waldorf supporters should not think this problem has gone away, sooner or later it will arise again due to the lack of public consciousness concerning the *depths* Waldorf and not just its *superficial* appearance. This has not been done yet and this paper is intended to make a contribution to this process.

The most fundamental question that may be asked about Steiner /Waldorf Education concerns its roots in Anthroposophy, sometimes referred to as Spiritual Science. Critics of Waldorf Education see the presence of such terms as a problem in itself, making accusations of mysticism, pseudoscience, occultism and racism. Due to the roots of Waldorf education being in Anthroposophy, they claim, this education ultimately leads to indoctrination. For such people, Anthroposophy is a cult that should not be at the foundation of any form of education. The critics particularly objected to the growth of the State supported Steiner Academies: for them no schools of this kind should be funded by the tax payer. This is a part of the picture as to why a number of Steiner academies in the UK have been closed down, due to the influence of critics on government perceptions. But it is not only the Steiner academies that have come under critical pressure, it is also the independent Steiner schools. This is due to the fact that there exists government legislation which impacts on all independent schools. In this text, I shall be focussing on the allegation of indoctrination. As the question of racism has been addressed in the previous book (Rose 2013), I shall not be considering that here.

The claims do not just concern Waldorf schools: they apply to all anthroposophical initiatives even those that do not receive state funding. These include the Camphill movement for special needs, the Ruskin Mill centres, anthroposophical medical practices, etc. Each of these has its roots in Anthroposophy and is subject to the laws, rules and regulations of each country in which they are located. As such, they also fall under the UN declaration of human rights – a part of which concerns the question of indoctrination.

The accusation of indoctrination has its locus in the critics' conviction that Anthroposophy is a "mystical" or "occult" form of pseudoscience. As such they see it as a danger to the education of children and their well-being. They claim that Waldorf Schools introduce Anthroposophy "by the back door" or of "Sneaking it in" (Rawlings 2014 accessed) and of using a methodology that is detrimental to the children: "In some instances, Waldorf teachers make their Anthroposophical messages plain to the students; in other cases, they do not. Sometimes the surprising, occult "content" of the stories exists mainly in the teachers' minds. In these instances, the students may not receive the messages the teachers intend. But in other instances, when the teachers are more forthright, the Anthroposophical belief system makes clear appearances in the classroom, and then the children are clearly subjected to indoctrination" (Rawlings 2014).

The question of indoctrination has much of its significance in relation to the Waldorf movement's discussions with British politicians. In an online magazine called "*Liberal Conspiracy*", the anonymous writer "Unity" claims to have unearthed clandestine negotiations between the Conservative party and the Steiner Waldorf Schools Fellowship: "Liberal Conspiracy has obtained a set of notes taken at a recent seminar which show that the Conservative Party is pushing ahead with plans to provide state funding to a network of independent schools with close ties to a controversial occult society. The notes were taken at a recent seminar organised by the Steiner Waldorf Schools Fellowship (SWSF), an offshoot of the Anthroposophical Society, which exists to promote the occult philosophies of the German mystic Rudolf Steiner... The discussion went on to two specific PR issues 1) Accounts from parents who are or have been unhappy with the Steiner schooling system and those that have had negative experiences associated with the schools, and 2) the writings of Rudolf Steiner and Anthroposophy, of which the latter was thought to present the greatest difficulties. Freedman [the Conservative education advisor at the time] then suggested that it was important that the schools should "explain to people quite strongly that they are not teaching what he [Rudolf Steiner] said" before likening the situation to the fact that not all Christians believe every word of the Bible... None of this addresses any of the major issues that providing state funding to Steiner schools would raise, particularly in regards to the teaching of science, where Steiner's bizarre pseudoscientific outlook is heavily favoured over the teaching of the scientific method and well-established scientific ideas to the extent that, less than two years ago, Stockholm University chose to pull out of providing Steiner-Waldorf teacher training courses after

concluding that the course's science curriculum contained 'too much myth and too little fact'" (Unity 2010)(My emphasis).

Going on to link this with the Public Relations (PR) questions, Unity claims that: "One observer at the meeting asked Freedman [about PR]. He [Freedman] then suggested that the schools should seek to nip any potential problems with their teacher training in the bud, because any pressure on ministers from negative PR was likely to be problematic for the school, at which point the SWSF were offered free media training, by Rachel Wolf, to help them deal with the 'PR issues'... However, the meeting also noted that it would be difficult to rebut Steiner's occult beliefs generally because 'many people throughout the Steiner schools system, *especially teachers*, strongly support many aspects of that belief system" and it was felt that many of these teachers would refuse to play ball with the SWSF's PR strategy. The notes also indicate that the SWSF members who attended the meeting were left with the clear impression that any backing from a future Tory government would also include help with any negative press" (Unity 2010)(My emphasis).

Unity's argument here is that there is a conspiracy to cover-up goings on between the Conservative Party and the Steiner / Waldorf Schools Fellowship: that they are attempting to hide the role of Anthroposophy behind a screen of PR. As with many other examples of criticisms, no attempt is made to research the nature of Anthroposophy and its role in Waldorf Education – it is merely assumed that if the word "occult" is sometimes used that this is somehow connected with something dubious, distasteful and outright dangerous. As I will show, none of this is true of Anthroposophy. But where I do agree, is that this should not be a PR question, but one of research.

Other claims are made by critics like Andy Lewis (*Quackometer* website) and James Grey. Both of whom write articles on the subject for national Newspapers and to the BBC. Grey, in response to the BA in an anthroposophical approach to Social pedagogy at Aberdeen University, has claimed: "It's clear that the course presents anthroposophical beliefs as intellectually equal to established theories of child psychology and development. But this isn't just about the publicly-funded promotion of quackery. This is about the promotion of quackery at the expense of the most vulnerable members of our society – those with complex needs and disabilities" (Grey 2012).

In a letter to the *Times* newspaper Grey wrote: “The relationship between Anthroposophy and modern Steiner education, however, is highly contested. The Steiner Waldorf School Fellowship, which represents all Steiner schools in the UK, recognises Steiner as the ‘founding inspiration of modern day Steiner schools’ and admits that Anthroposophy ‘underpins the ethos of a Steiner school’. However, the Fellowship maintains that it does not promote Anthroposophy or impose it on pupils. Critics claim this is disingenuous. ‘Of course it’s imposed,’ says one former Steiner parent who now campaigns against the movement under the Twitter pseudonym Thetis [Melanie Byng]: ‘Anthroposophy informs every aspect of the curriculum, the colours on the walls, the behaviour of staff, the festivals, the morning prayer and verse.’ Steiner pupils are ‘marinated’ in Anthroposophy, she says, and naïve parents are tricked into colluding” (Grey 2011).

From another perspective, Michael Thomas of the “Future Is in Our Hands Network” (FIOH) wrote in reference to a letter to the Steiner Waldorf Schools Fellowship (SWSF): [Anthroposophists claim that]: ““The educational content of Anthroposophy informs the work of teachers; it is not a belief system and is not taught in our schools”, how much confidence can we have in this assertion? A teacher who undergoes training in Anthroposophy may spend 8 years of early education with the same group of children... Are such distinctions a form of deception that gives the impression that Steiner school education is secular in nature? Also, if a school does not teach or reflect Steiner's occult ideas, then why would it want to carry the Steiner label?... I also believe that to say that Anthroposophy is not taught in these schools is, in general, just a simple lie... [to] suggest that Anthroposophy is not taught is to stretch the imagination beyond credulity... There are, I believe, many positive aspects to Steiner pedagogy which conventional state funded schools would do well to copy, but this does not dispel my deep reservations about some of its esoteric underpinnings based on many of Steiner's ideas which I believe to be both irrational and unscientific.... Many people when they first hear about Steiner 'Education' are very impressed, as I was myself. The rhetoric is quite compelling and the ideas superficially attractive. However as soon as one delves behind the rhetoric into the practice, and into the mishmash of ratbag ideas that give rise to the practice, one realises that Rudolf Steiner is really bad news for most kids, and that Steiner 'Education' must be rejected if we care about children... Has the Department for Education in the UK been duped? I think so! What has to be realised from Roger Rawlings account of his educational experience, is that the teachers at his school were caring and at the time he was

unaware of the *subtle indoctrination* to which the students were being subjected.” (Thomas 2014) (My emphasis).

One critic’s view that is widely praised on the internet is the self-proclaimed French ex-Waldorf teacher and supposed ex-anthroposophist, Gregorie Perra. Being perceived as an insider who decided to “whistle blow” on the whole of the Waldorf movement, he is considered by other critics as central to the whole indoctrination accusation. With a provocative title to his essay *“The Anthroposophical Indoctrination of Students in Steiner-Waldorf Schools, part 1: An Insidious Indoctrination 1: Hiding Anthroposophy in the Subjects Taught”*, he writes: “Based on my experience as a former student, a teacher at my old school, and an Anthroposophist, I would like to describe the subtlety of indoctrination that students in Waldorf schools are subjected to. In fact, its chief characteristic is its non-identifiable form. I should state that the various ideas of Rudolf Steiner are taught to Waldorf students, but this is done without reference to their origin or their special nature. The teachers associate these ideas with their subjects as if they were objective facts and not part of a prescribed vision of reality. This is why Waldorf students can have the feeling that they are left completely free to form their own ideas. At the most, they may notice certain specific practices (that may seem very odd to some of them), which they may choose to ignore. Nevertheless, Anthroposophical ideas and practices form their psychic, cultural, and intellectual universe for many years, immersing them unconsciously in a worldview that will accompany them throughout life and that they are likely to return to on many occasions. The invisibility of the indoctrination process depends primarily on the public’s ignorance about Anthroposophy” (Perra 2011).

Similarly, Andy Lewis (Quackometer Blog) has stated that “prospective parents are not being told about the occult foundations of the Steiner philosophy. You may think that the mystical, spiritual and esoteric movement behind Steiner schools might be a very important factor in deciding whether your children should attend such a school. But the schools obviously do not. Informed choice is not possible when you do not understand the school’s underlying philosophy... Steiner followers repeating the view that Steiner philosophy embraces and extends science. Of course, the reality is that science is undermined by the insistence of the reality of nonsense... The history of the Steiner’s movement would suggest it is at best barmptottery, and at worst, deeply unpleasant and racist nonsense that threatens the wellbeing of children through crackpot ideas about medicine and an absurd approach to education. Clearly, the UK government does not think there is a problem as I was told in my letter from Tessa Munt that the Frome proposal had gone through full due diligence” (Lewis 2014).

Lewis has claimed that his agenda is really for the Steiner schools to be open about what they stand for so that parents can make an informed choice. But it is clear that his real conviction is that, should they do so, then their supposed “occult science” would be laid bare for all to see. His assumption here, however, is that word “occult” has the same meaning as in popular culture and therefore would not be supported by many prospective parents. But, as supporters of Anthroposophy and Steiner education will know, this does not follow. As we will see later, Steiner’s aim was to develop a “science of the spiritual” as a complement to other areas of science; for him, as I will show, the meaning of the term “occult” has no correlation with that found in contemporary media.

As reported in my previous book (Rose 2013), in May 2012, members of the British Humanists Association (BHA) signed a letter to the British newspaper the “*Observer*” which said: “not enough attention has been paid to what we believe to be two equally grave threats to science education, namely Maharishi and Steiner schools... Steiner education is based on an esoteric/occultist movement called Anthroposophy, founded by Austrian mystic Rudolf Steiner... Anthroposophy, or spiritual science, is centered on beliefs in karma, reincarnation and advancing children’s connection to the spirit world... We believe that the new rules on teaching pseudoscience mean that no more Steiner or Maharishi [Academy] schools should open”. The article is signed and endorsed by BHA members Pavan Dhaliwal, Head of Public Affairs, British Humanist Association; Edzard Ernst, Professor of Complementary Medicine, University of Exeter; David Colquhoun, Professor of Pharmacology, University College London; Simon Singh, science writer; Melanie Byng, Waldorf Critic; Richard Byng, medical academic. The article is still, to this day, on the BHA website and is a part of their campaign against supposed “faith schools” lead by BHA co-worker Richy Thompson. In this context, the term “Anthroposophy” is associated with terms like pseudoscience and mysticism. In other words, for them, Anthroposophy is not really a science and therefore untrue or untestable. Clearly, if this were the case any education based on this would be considered, by them, to be indoctrination and should not be funded by the government.

Representatives of the BHA have followed this up with a campaign specifically directed at preventing the development of more Steiner Academies or Free Schools: “The BHA has a large number of varied concerns about the state funding of Steiner schools. So far there are three such schools (a sponsored Academy and two Free Schools), with a fourth due to open in September (with the exception of one these have now been closed down). These concerns range from the quality of education provided, to pseudoscience on the curriculum... The

human rights implications of state funded Steiner schools have not been properly considered... We are deeply concerned about the state funding of Steiner schools, in particular due to the pseudoscientific nature of the curriculum... We are also worried by notions that Michael Gove [then the minister for Education] overruled the Free Schools team on this matter. We will be pushing for the release of the document detailing that investigation, and hope to provoke further public debate on the matter.” BHA (2014)(My emphasis).

One of the criticisms the BHA makes concerns the teaching of evolution; quoting from “*The Educational Tasks and Content of the Steiner Waldorf Curriculum* edited by Martyn Rawson and Tobias Richter”: “2. In Life Sciences class 3, p165: ‘Creation stories give an holistic image of the origins of the earth, plants, animals and human beings’. Reservations expressed around the teaching of Darwinian evolution reinforce the concern around creation stories (Life Sciences, class 12, p171): ‘The Darwinian mechanism delivers clarifying power within a certain range of phenomena, but it is rooted in reductionist thinking and Victorian ethics and young people need to emerge from school with a clear sense of its limits...’”. The nature of this quote is just as interesting in terms of what it leaves out as well as what they include. I will return to this later, but for now the BHA assume that Steiner education is anti-Darwinian, anti-science and by implication indoctrinary. As I will show later, these assumptions are not true.

Acclaiming their later success, the BHA goes on to say: “Another victory for BHA ‘Teach evolution not creationism’ campaign: Government extends requirement to teach evolution and banning of pseudoscience to future Academies... The Government has revised the “single Academies model funding agreement” to bring it in line with the Free Schools model funding agreement in preventing Academies from teaching pseudoscience and to require the teaching of evolution. The changes, which will apply to stand-alone Academies opening from today onwards, have been welcomed by the British Humanist Association (BHA), which has long been campaigning for this change” (BHA website, *Teach Evolution not Creationism*). This whole argument is a part of their campaign against so-called “faith schools” and the teaching of creationism or “intelligent design”: “In September 2011, the BHA co-ordinated the ‘Teach evolution, not creationism’ campaign, which was also supported by organisations such as the Association for Science Education and the British Science Association, and by thirty leading scientists including Sir David Attenborough, Professor Colin Blakemore, Professor Richard Dawkins, Sir Paul Nurse and Revd Professor Michael Reiss. It was supported by an e-petition signed by almost 25,000 individuals. This campaign has been very successful. As a

result of our efforts, evolution has been added to the draft primary National Curriculum in England, while Free Schools now have to teach evolution but are precluded from teaching pseudoscience” (BHA *Say no to Faith Schools*, BHA website). For the BHA representatives, Steiner schools are faith schools which teach pseudoscience and should, therefore, not be allowed academy status. The problem is: they provide little evidence that Steiner schools are faith schools or that pseudoscience is taught.

The Government document they are referring to states that:

2.24 The Academy Trust must not allow any view or theory to be taught as evidence-based if it is contrary to established scientific or historical evidence and explanations. This clause applies to all subjects taught at an Academy.

2.25 The Academy Trust must provide for the teaching of evolution as a comprehensive, coherent and extensively evidenced theory. In respect of any Alternative Provision Academies and 16-19 Academies, the Academy Trust must do this where relevant to the curriculum.

2.26 The Academy Trust must ensure that principles are promoted which support fundamental British values, of: respect for the basis on which the law is made and applied in England; respect for democracy and support for participation in the democratic processes; support for equality of opportunity for all; support and respect for the liberties of all within the law; and respect for and tolerance of different faiths and religious and other beliefs.

DfE, *Academy and Free School: Master Funding Agreement* July 2014 (p. 18), Online.

Also:

2.46. The Academy Trust must prevent political indoctrination, and secure the balanced treatment of political issues, in line with the requirements for maintained schools set out in the Education Act 1996, and have regard to any Guidance.

DfE: *Mainstream academy and free school: single model funding agreement*, July 2014. p. 25, (My emphasis).

On one level, the first quote appears to be intended to prevent the teaching of pseudoscience and indoctrination. I will refer to this as the “anti-pseudoscience” clause and also the “anti-indoctrination” clause. I will evaluate this later.

Waldorf Responses

The response to such criticisms from the Waldorf movement usually takes the form of saying something to the effect that such schools are based on Anthroposophy as a *method* but that the *content* is not taught. The claim is that no ideas and practices derived from Anthroposophy are brought to the children in the form of a curriculum but that the way subjects are taught is based on knowledge of the human being from the perspective of Anthroposophy

There are three logically possible positions that the Steiner / Waldorf Schools could take:

- 1) A school may distance itself from Anthroposophy in terms of both *method* and *content* (not a likely scenario);
- 2) A school may distance itself from the content of Anthroposophy but embrace the method;
- 3) A school may wholly embrace both method and content of Anthroposophy.

There is a fourth position that I will be proposing:

- 4) That the schools and the individual teachers see the *method* and the *content* of Anthroposophy as *fields of research* in which its educational relevance is tested against truthfulness, aesthetic sensitivity and moral value. The key concept here for judgement formation and decision making will be what I will call “**sufficient convergent knowledge**” which I will discuss in chapter 3.

There are some downsides to each of these possible responses. In the appendix, there is a list of Statements from websites of a number of Waldorf Schools, Institutions and Bodies. As can be seen, they are quite diverse, some being closer to option 1, most to option 2, some around option three. There is one that is closer to option 4, i.e. the ECSWE statement, although there are some caveats about this.

To 1): Were this to happen, Waldorf Schools as such would, in the long term, cease to exist. They would simply become state schools with pretty pictures. No doubt some of the critics would be happy about this, but supporters, parents, teachers and students at them may not.

To 2): In this case an artificial distinction is made between *method* and *content*, which, as can be shown, cannot be sustained. Steiner's texts on education show clear connections between the method and content of Anthroposophy. Not only that, but for Steiner the very being of a good Waldorf teacher is conditioned by their inner connection to Anthroposophy (what this actually means I will show later). There is also strong textual evidence that Steiner made suggestions about content and not just method. In "The Kingdom of Childhood" his advice about the content of nature studies is distinctly anthroposophical. The question is: does this really matter?

To 3): If both the content and method of Anthroposophy are embraced as parts of the education (naively), then this is perceived by the critics as cultish behaviour and therefore indoctrination. The schools may just ignore this, but it is a question that may be asked more by both prospective parents and public bodies alike and I think it needs to be answered.

To 4): This is of a totally different character to the others. Seeing the content and method of Anthroposophy as a field of research does not presume an absolute. The ideas and practices are researched from the perspective of *presuppositionlessness* (see chapter 3). Ideas such as of body, soul and spirit are seen as acceptable research paradigms to be tested out by every individual teacher and in collaboration with colleagues. The same follows for the content, some ideas about the curriculum content may turn out to be relevant after research, some may not. This research is to be measured against what is knowable / truthful, aesthetic sensitivity and of moral value.

The downside to this, however, is that it depends greatly on the teachers' own knowledge and ability. To *research* Steiner Education needs knowledge of modern as well as Steiner's own research methods.

Why it should concern *all* Steiner / Waldorf Schools and Initiatives

Steiner Academies are receiving government funding, even though this is now much reduced (2023). Also the theoretical possibility of future Steiner / Waldorf academies cannot be ruled out *a priori*. As such, due to the "DFE, *Academy and Free School: Master Funding Agreement* July 2014", there would still be an obligation to adhere to article 2.24 (the "anti-pseudoscience" clause). The dilemma here is to either reject the ideas derived from Anthroposophy or to accept them and thereby potentially come into conflict with government rules. Of course, research may prove this to be a false dichotomy. Rejecting the ideas of Waldorf, however, would risk the loss of the identity of the schools and academies and thereby lose the interest of many prospective parents.

For the Independent Steiner schools (those not receiving Government funding) this may also affect pupil recruitment as well as their connection with government bodies such as Ofsted. In England, Steiner Schools are classified as "Independent Schools" and as such they were inspected by the "*Schools Inspection Service*" and now by *Ofsted*. This falls under the legislation for: STATUTORY INSTRUMENTS, 2012 No. 2962; EDUCATION, ENGLAND, The Education (Independent School Standards) (England) (Amendment) Regulations 2012: "(vi) encourage pupils to respect the fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs" (p. 2). The element of individual liberty comes very close to the question of indoctrination as the latter is a denial of the former. Should this be found in Independent Steiner Schools, it would still be a problem concerning their registration as being legal schools. Failure to meet government requirements can lead to enforcement action to de-register the schools and their eventual closure. As we now know, this has actually happened in a number of cases (2023).

Moreover, many parents bring their children to Steiner schools for a wide variety of reasons. Often, this does not imply a deep knowledge of Steiner Education and its roots in Anthroposophy. As a matter of fact, many of the critics of the Education are former parents and / or pupils and bemoan the fact that "they weren't told". They leave the schools. How

widespread the loss of children due to this reason is hard to tell, but with the increasing level of criticism on the internet this may well grow if the nature of, and the connection, to Anthroposophy is not researched and made public. Just to emphasis: this is not just a PR question, but one of real research. PR has its place, but only after and secondarily to research.

Indoctrination as a Human Rights Question

On a very general level, indoctrination is a human rights question. This may be interpreted in the sense that indoctrination is in fundamental contradiction, *inter alia*, to the right of human liberty. The *United Nations Declaration of Human Rights* is very clear about the freedom of all people. This has particular implications for indoctrination, education and the rights of the child:

ARTICLE 13 - Freedom of Expression

1. The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice.

ARTICLE 14 - Freedom of Thought, Conscience and Religion

1. States Parties shall respect the right of the child to freedom of thought, conscience and religion.

From: *The United Nations Convention on the Rights of the Child: How legislation underpins implementation in England Further information for the Joint Committee on Human Rights, March 2010, Work in progress*

These freedoms of “Thought, Conscience, Religion and Expression” are embedded in the European and UK systems, including education law, and are in clear opposition to any form of indoctrination. As we will see in chapter 2, indoctrination is partly defined by the application of an external social power in opposition to an individual’s freedom. *Evidence which shows that if a particular education advocates, practices and cultivates such freedoms this disproves the indoctrination accusation.* As I will show, there are a number of educational methods and contents within Steiner’s proposals on Education which show the cultivation of these kinds of freedoms and therefore refute the indoctrination hypothesis.

Issues Arising

One of the problems with the critics' assertions concerns the "scope" of Anthroposophy. For them, Anthroposophy is about some strange mystical realm involving gnomes and nature spirits, angelic beings, the soul and spirit. For the critics, these terms appear to conjure up associations derived from new-age popular culture and are therefore suitable for derision. There are two basic problems with this. The first is that these popular images have nothing to do with Anthroposophy despite the trivial similarity of word usage. More significantly, Anthroposophy covers a wide range of methodologies and theories that are fully compatible with accepted philosophies of science: it is not just about "things spiritual". In picking on terms like "gnomes", etc, the critics fall into the disreputable "straw man" type arguments.

(2) DEFINING INDOCTRINATION

Introduction

In academic circles, indoctrination is widely seen as a negative and in some cases unethical: “Indoctrination is commonly regarded as reprehensible and antithetical to education or some educational ideals such as autonomy, rationality or open-mindedness” (Huttunen 2003, p. 1; Tan 2008, p. 1). There are in fact laws against it: “Furthermore, safeguards in education law exist to guard against biased and unbalanced teaching or indoctrination” (Crick / QCA 1998, p. 8). The questions are then this: what is indoctrination, how should it be defined: and by what processes can indoctrination be guarded against; and then if this is relevant to Steiner / Waldorf schools.

Indoctrination: the Basic Parameters:

It might seem clear to some that, what indoctrination is, is obvious. But in the academic world, this is debated and has some significant problems in how it is conceptualised. Not only that, but there are a number of different perspectives from which indoctrination can be analysed. Here is one such definition:

Indoctrination is the *intentional* implantation of *unshakeable beliefs* regardless of appeal to *evidence*... Indoctrination is seen as running counter to the very idea of education as it necessarily involves lack of respect for an individual's *rationality* and hence is morally unacceptable.

(Matheison, D and Grosvenor, T, 2002, p. 7)(My emphasis)

There are then four aspects to this definition of indoctrination:

- 1) Intentionality;
- 2) Unshakeable Beliefs;
- 3) Evidence;
- 4) Rationality.

Proving intentionality in an individual is exceedingly difficult, even in a court of law. Epistemologically, it requires a demonstration to prove you know what is inside someone else's mind. In the case of education theory it is, perhaps, not as difficult as it is possible to demonstrate the case in relation to specific *textual* evidence. A refutation of the indoctrination assertion could also be found through this. On the other hand, intentionality may not be central to the definition of indoctrination. It is, perhaps, possible to indoctrinate without it being intentional. For example, a teacher may be convinced that a particular idea is true, in which case the question of intentionality becomes secondary to the testing of the idea.

The implantation of “unshakeable beliefs” is the other side to this in that it is a kind of fixing of ideas without the possibility of further reflection and testing. One would also have to show that students who were recipients of an alleged indoctrination were incapable of personally testing out their beliefs. To refute the “unshakability hypothesis”, there would need to be evidence to prove that a particular form of education is working with principles of idea change as well as personal testability.

The latter two parameters, evidence and rationality, are the basic constituents of our understanding of modern science. Science practices high levels of reasoning, often in terms well developed theories and in the postulation of new ones. It tests these theories in relationship to evidence and either corroborates or refutes them in light such evidence (Popper 1963). How science is interpreted then is a part of the definition of anti-indoctrination.

The question of evidence is an interesting one, because Waldorf Education claims to have a strong experiential element. Evidence and experience are not so far apart, so the question is: how could Waldorf Education be accused of indoctrination on this ground? It seems to me to be important then to ask the question: if some of the content of Anthroposophy is taught and appeals are made to evidence/experience (in a relevant and child appropriate way) then how is this indoctrination?

The fourth element, rationality, is interesting because even the authors of this quote consider it irrelevant for very young children. They ask: how can appeals to the rationality of a two year old really be relevant here (Matheison, D and Grosvenor, T 2002, p. 7)? Waldorf teachers of young children, and even up to later ages, may ask the same question. Of course, this does not reject the importance of rationality in education, but it does ask the question of age-appropriateness – a notion very familiar to Waldorf educators.

Freedom against Indoctrination

One particular aspect of the question of indoctrination is that of the freedom of the individual:

In the philosophy of education, the concept of indoctrination refers to unethical influencing in a teaching situation. Indoctrination means infiltrating (drilling, inculcating etc.) concepts, attitudes, beliefs and theories into a student's mind bypassing her *free* and critical deliberation. (Huttunen 2003, p. 1)(My emphasis)

The contrast here is between the freedom involved in critical debate being contrary to indoctrination. The latter of these is seen as a kind of interference in human freedom. In order to prove the indoctrination hypothesis, there would need to be evidence that the learner's freedom is taken out of the learning process advocated in a particular educational philosophy. If, on the other hand, freedom is present at significant places, then the claim would be refuted. As I will show later, freedom is central to Waldorf/Steiner education and can be seen present in differing ways through a pedagogy adapted to the development of the child.

Individual Power versus Social Power

There is another dimension to the question of freedom and it concerns the issue of *power*; it is not just a question of freedom in rationality. Indoctrination operates through the application of different degrees of social power against that of the individual. The indoctrinator applies their power in opposition to that of the indoctrinated. In other words, indoctrination works against the freedom of the individual from the perspective of their innate powers; such as the *inner capacity to reason*. This would tend to negate those forms of education which see their task as discovering, working with and enabling the inner powers of an individual. Were such ideas present in the fundamental principles of an education philosophy, i.e. ideas that promoted *innate* child development, then this would refute the assertion that it is a form of indoctrination. Innatism and indoctrination are essentially incompatible as the exercise of external social power works in opposition to innate capacities.

Contrasting Paradigms:

But it is not just a question of freedom, the role of the lack contrasting views, or alternative understandings, is also a part of the definition of indoctrination:

If indoctrination is the closing down of alternatives through the promotion of *single*, unassailable views and the shunning of evidence, then it seems to us that education is the opposite; the *opening of possibilities* through engagement with evidence. For the purposes of argument, then, we define education as the opening up of possibilities through the exploration of alternative understandings, the critical application of evidence and argument and the development of the skills and dispositions necessary to act on the possibilities. In short, we see *indoctrination as a process that narrows and limits possibilities* and *education as a process that broadens and opens up possibilities*.

(Sears & Hugh 2006, p. 4)(My emphasis)

From this perspective indoctrination is contrasted with education in terms of the closing or opening of possibilities in relation to contrasting views. Sometimes discussed in relationship to the “paradigm” question, indoctrination is cast in terms of inculcating *one* “view point”, or one “world view”. By inference then, education by contrast is supposed to involve the consideration of *alternative* paradigms in relationship to evidence and rationality. This raises some interesting questions concerning the UK government’s “anti-pseudoscience” / “anti-indoctrination” clause presented in chapter 1: “The Academy Trust must not allow any view or theory to be taught as evidence-based if it is contrary to established scientific or historical evidence and explanations. This clause applies to all subjects taught at an Academy” (DfE 2014, p. 18). Whilst to many this may seem agreeable, in light of the “alternative paradigms” criterion for anti-indoctrination, it may, in itself, be a form of indoctrination. Whilst the statement is qualified by the notion of a subject being taught “as evidence based” this does not get around the fact that there exist *different* scientific theories with the *same* evidence base. This is a well known problem in the philosophy of science and known as the “under-determination of theory by data”, also known as the Duhem-Quine thesis (Curd & Cover 1998). Without the presence of alternative paradigms in the educational process, the very important “evidence” and “rationality” principles may well be limited to *one* “unassailable view”, thus being indoctrination.

The idea of *contrasting* paradigms, however, could play a significant role in the question of indoctrination. As one of the criteria for the identification of indoctrination is the inculcation of one particular world view – or one paradigm, then the teaching of this is indoctrination. If, however, the comparing and contrasting of paradigms, in light of evidence and rationality, can

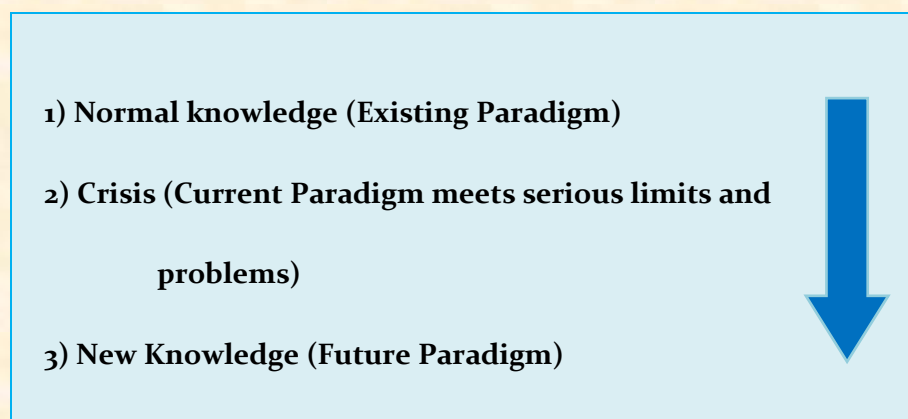
be identified in the education, then it is a good argument for anti-indoctrination. In this context, evidence is seen as that which is given through observation and rationality is a thinking process carried out in relationship to observation and yields concepts, ideas and theories.

The notion of Paradigm originates from Thomas Kuhn's (1963/70) work "*The Structure of Scientific Revolutions*". This has been widely extended across many other areas of study including education (Hanan 2006). What is a Paradigm? There is a variety of interpretations, but one way to formulate it is as follows:

A paradigm is a systematic set of theories, ideas and concepts through which a wide set of observations can be understood and tested.

Scholars have debated the question of "paradigms" and it is highly contested. Some see the whole question of paradigm change as an irrational process; others argue that it is rational and that paradigms can be tested through observation and experimentation. In order to keep the discussion here within the confines of this book, I will assume, like scientific realists would, that paradigms, and their change, are rational and open to testing.

Often scientific paradigm change is modelled as:



In this context, indoctrination can be seen as a form of teaching that operates *exclusively* within an existing paradigm. Crises and new paradigms do not come into consideration for this. Indoctrination would not wish to admit the existence of crises, or the possibility of a new paradigm (or mode of knowing), either in terms of *observational evidence* or *theoretical*

coherence. Anti-indoctrination, in contrast, would self-consciously teach the relationship between the three stages as a means to educate for the freedom of the individual.

As an aside, sometimes it is argued that old and new paradigms are “incommensurable”: they have no means of comparison or common measure. This question, however, cannot be answered merely through logical argumentation on the level of general principles; it also needs each case to be considered on its own merits.

The question of paradigms arises sometimes in the context of critical discussion of Steiner Education in that critics claim that it is in conflict with the modern science. The assumption here is that, assuming that Anthroposophy is a paradigm, Steiner Education is incompatible with the paradigm of modern science (assuming that there is only *one*). Critics see this as confirmation that we are dealing with indoctrination. But there are three theoretical questions that arise from the comparison of modern science and Anthroposophy. It is this:

- 1) Are they *contesting* paradigms where there is no overlap between them and that they say *totally* different things about the World – i.e. truly “incommensurable” in Kuhn’s terms; or
- 2) Are they *comparative* paradigms where they say different things about different aspects of the World; for example modern science is about the physical World and Anthroposophy is about the “spiritual” World; each abiding by its own domain, or
- 3) Are they *complementary-convergent* paradigms where they say some similar things about the physical World but also have some *additional* and *differing* perspectives; or
- 4) They are some combination of these where, for example, they may agree on some things (on many levels) and disagree on others. In other words, are they partially *complementary* and partially *contesting*. For simplicities sake I will call this *contrasting*.

Later I will look at the ideas of *contesting*, *comparative*, *complementary* and *contrasting* paradigms in some special case studies. As I will show, it is the notion of *contrasting*

paradigms that is closest to the relationship between modern science and Anthroposophy – that they are partially *complementary* and partially *contesting*. But the story is a complex one, each example taking on a different nuance. Eventually, however, it is arguable that the existence of contrasting paradigms in Steiner Education is a part of the solution to the indoctrination question. Why is this? Later on, I will look at specific examples drawn from Steiner Education, each with their own story, but for now I want to look at this proposition on a general level. To this there are a number of questions:

- 1) Should education teach only about the existing paradigm? Or
- 2) Should it teach different and / or emerging paradigms?

If the answer is 1), then is this indoctrination? If the answer is 2), some might say that this is indoctrination also. In the above quote from Sears & Hugh (2006) it was suggested that indoctrination can be defined in the teaching of “*one* unassailable view”. Now if education is about the teaching of only one kind of paradigm it starts to come close to being indoctrination. This would be true whether it be mainstream or Steiner education. Of course there is a caveat to this in that science in itself is not necessarily “unassailable” in that it may be tested through observational evidence and reason. But it also has to be added that these are bounded within a specific framework: the evidence and reasoning are confined to certain boundaries accepted by the scientific community. It is arguable that, due to this, this is also a limited form of indoctrination. Moreover, if the theories of science are taught to children as if they are incontestable then again then this starts to look like indoctrination. Take the example of the theory of Darwinian evolution. Prior to Darwin, most naturalists thought that species were fixed; but there was a great deal of evidence and rationality present within the boundaries of this “paradigm”, as no one had *observed* one species evolving from another (Mayr 1997). Darwin’s theory changed naturalist’s views to the idea of species as evolving and not fixed. Within this there was, and is, evidence and reasoning. So what happened with this change? There must have been some evidence and reasoning that *was not* bounded or limited to that paradigm, otherwise no change of theory would have occurred. This means that, the history of science tells us that science is not just a process of operating *within* a particular and *existing* paradigm; but one that *transcends* paradigms. There is of course a lot more to this.

With this, there is an important indicator concerning indoctrination. Real science is not just about evidence and rationality *within* a specific paradigm, but is an activity that moves *between*

and *transcends* paradigms. Consequently, *any* education that wants to avoid indoctrination exclusively within a specific paradigm, even in a limited sense, will teach science based activities inclusive of rationality and evidence that moves *between* and *transcends* paradigms as well as operates *within* them. So from an educational perspective what is the solution? Teach contrasting paradigms?

Process Indoctrination:

It may be natural to think that indoctrination only concerns the inculcation of specific contents of knowledge. But it can also be about the pedagogical process, the methods, involved in education:

Numerous definitions of indoctrination have been set forth over the years. Here, I will argue for a *process-based* definition of indoctrination in which indoctrination is a process that involves someone who indoctrinates and someone who is indoctrinated. A process-based definition of indoctrination may involve specification of the *characteristics of the indoctrinator*, the *indoctrinated person*, or their *relationship* to one another, and it may involve specification of the nature of the *process* itself. The concept of indoctrination has been defined in various ways including describing the content or methods involved in the process, describing the intentions of the indoctrinator, and describing the outcome that the process produces in the indoctrinated person. (Taylor 2012, p. 1)(My emphasis)

Taylor makes some important distinctions between content and process based forms of indoctrination. For our purposes here, an important element is that of the pedagogy of Steiner Schools as a process. As I will show later, there is a gradual transformation of the process of this education which educates the principles of freedom in gradual stages. It does, of course, require the teacher to have inner characteristics for freedom. This, I will argue, is contrary to the indoctrination hypothesis.

Democracy:

The nature of indoctrination is also seen as running counter to the very definition of democratic societies:

Although the word “indoctrination” in the English language originally had a neutral meaning almost equivalent to educative teaching, it gradually assumed the connotations of coercive teaching and became disassociated from the emerging concepts of democratic education. During this century it finally acquired a derogatory connotation similar to propaganda and brainwashing and came to be regarded as the antithesis of education for life in a democracy.

(Gatchel 1972 in Puolimatka 1996, p. 109)

It needs to be mentioned that this could be read in a number of ways. The first one is that the presence of freedom of thought, expression, etc, is at the foundation of liberal democratic societies. It is in this sense that indoctrination runs counter this ideal. It is not without note that much of the academic discussion about indoctrination is in the field of citizenship education and the teaching of democracy. The so-called “Crick Report 1998” is an example of this. The other side of this coin is that evidence showing that liberty and democracy is a part of the primary aims and practice of a particular schooling demonstrates that it is not indoctrination.

Self-Reflexivity:

Whilst the concept of “*Self-Reflexivity*” does not define indoctrination, it is an essential component in understanding attributions of it. Moreover, “*Self-Reflexivity*” can be used as a test to see if the principle for defining indoctrination is, in itself, a means to produce indoctrination. The test of “*Self-Reflexivity*” works by asking the question: *is the anti-indoctrination principle applicable to itself?*

This idea has arisen due to the fact that proponents of the anti-indoctrination proposition come largely from secular atheists. Institutions such as the British Humanists Association are of this persuasion. So their campaign against “faith schools” can hardly be seen as theoretically neutral, it is rooted in human values but “anti-spiritual” theory, at least from a certain perspective. The problem is that many academics now acknowledge, many, if not all, views are “situated”, they are “views from somewhere” (Hanan 2006). In this particular case, this means that “formulae” designed to avoid indoctrination cannot be assumed to be neutral. In the case of the BHA, the anti-indoctrination formula has to be scrutinised for atheist or materialist assumptions. It then needs to be tested for “*Self-Reflexivity*”.

Not only that but one of the tendencies in attributions of indoctrination is that it is always what someone else is doing – those who attribute indoctrination almost invariably see it as what the “Other” is doing and not themselves. To be truly critical, however, is to also ask if one is also doing it: *are my proposals also a form of indoctrination* – this is “*Self-Reflexivity*”:

‘Indoctrination’, in the sense of a deliberate inculcation of values, may be more obvious to someone looking at a system from the outside than to someone actually in it; ‘indoctrination’ may turn out be to something that *other* people do... unless we are prepared simply to dismiss other interpretations as ‘wrong’ just because they are different, their very existence requires us to attempt a definition in our terms”. (Grant 2002, p. 140) (My emphasis)

This has also been pointed out by those of a religious persuasion:

In democratic societies there will be a natural and inevitable struggle for the mind between religious values and secular values. Both can be legitimated intellectually. Both can be associated with power and its extension or preservation, sometimes even with abuse (e.g. corruption). Both have the capacity to be establishment values or revolutionary anti-establishment values. Yet although religious values and secular values each carry - and on occasions attempt to conceal - their own intellectual, moral and ethical dimensions and difficulties, value-neutrality is not possible... the possibility of secular indoctrination is rarely canvassed. (Copley 2005a)

a secular indoctrination process is at work in British and European society, programming people against religious belief... People in Britain are frequently negative, even hostile, towards institutional Christianity, while at the same time being less critical of ‘other religions’ (except perhaps Islam), even more uncritical towards alternative spiritualities and, finally, completely uncritical of secular values. (Copley 2005b, p. vii)

It is a valid question to ask. The consequence is: should the test of indoctrination not just be applicable to religious education, but also to materialistic science education? In fact, should it

not be asked of *all* view points or paradigms: are they not susceptible to the indoctrination assertion when they are the *sole* determinant of education?

A particular case in point is the above cited “formula” to avoid pseudoscience and indoctrination:

2.24 The Academy Trust must not allow any view or theory to be taught as evidence-based if it is contrary to *established* scientific or historical evidence and explanations. This clause applies to all subjects taught at an Academy.

DfE, *Academy and Free School: Master Funding Agreement* July 2014 (p. 18), Online. (My emphasis)

The question of “*Self-Reflexivity*” is important here. The component of “contrary to *established* scientific... evidence and explanations”, locates the anti-indoctrination principle very much in the field of “established” science. The implications of this are at least twofold. Firstly, science is not just about what has been established: were this the case then Darwinism, relativity and quantum physics would have been defined as pseudo-science by the “established” views of the time. Secondly, this would also mean that any teaching in “all subjects” would have to have their explanations derivable from reductive physicalism (the successor to materialism). This might be construed as a form of indoctrination into the physicalist world view or paradigm.

There are a number of problems with this. Firstly, even if one is not of a religious persuasion it has a problem for science itself. Materialism was succeeded by physicalism because the former only accepted a very small number of things as being real: motion, extension and mass. Physicalism, on the other hand, accepts other realities, such as photons, which have no mass (Oldroyd 1986). In other words, science evolves due to new discoveries. If one were to restrict science to “established” explanations and evidence, no new objects and entities could be accepted (Papineau 2001).

Secondly, it also assumes that “established” science is the sole means for deciding on what is real and what should be the base therefore of what is to be taught in schools. There is no *a priori* reason for assuming that other subjects in schools should find their locus in scientific explanations as they are conceived today. In fact, many scientists today support the view that there are many layers or levels to reality in addition to those accepted by reductive

physicalism, a view which is referred to as emergence (Ayala 1983; Nagel 1974; Popper 1977; Silberstein 1999, 2002).

In both cases, Self-reflexivity is the antidote to definitions of indoctrination that derive from one paradigm. To be truly independent of a one paradigm interpretation requires a definition of indoctrination that *transcends* all paradigms.

Facts and Values:

The distinction between facts and values has a long tradition in philosophy. The usual dichotomy that is made is that science deals with value-free facts and that ethics and religion, amongst other things, are to do with values. There are some though who doubt this division of labour and argue that a lack of clarity on this leads to indoctrination:

Traditional animal science curricula ignore sociological aspects of scientific research and therefore portray scientific knowledge as value-free. This view gives rise to a teaching method that involves imparting lists of scientific facts that are to be accepted by students without critical evaluation. This amounts to little more than indoctrination and misrepresents science as a system of knowledge.

(Schillo 1997/2014)

Schillo's aim in this is not to prove that science is "theory" or "value" laden, but rather to argue for the critical evaluation of the *possibility* in a teaching situation. For him, the assumption that science is value free in education is a form of indoctrination. In light of the previous section, this means that the question of the "evidence" base being value neutral cannot be assumed. This would make the anti-indoctrination formula subject to the charge that it encourages indoctrination into the values implied by physicalist reductionism! This might, for instance, include the reductionist assumption that an individual entity is more important than the whole community. The general consequences of this can only be hinted at here.

In summary we have the following distinctions between Education and Indoctrination:

Table 1

Dimensions	
Education	Indoctrination
1) Ideas can change.	1) Unshakeable beliefs.
2) Appeals to evidence / experience.	2) No appeal to evidence / experience.
3) Evaluates contrasting ideas / paradigms.	3) Specific set of beliefs / paradigms.
4) Grounded in reason.	4) Little rationality.
5) Freedom	5) Authoritarian
6) Democratic Enabling	6) Authoritarian Enabling
7) Process Freedom	8) Process Coercion
8) Self-Reflexive	8) Biased self-definition
9) Fact / Value Evaluated	9) Fact / Value not evaluated
10) Individual Powers	10) Social Power

Thus, in brief, indoctrination is:

- (1) any form of teaching aimed at getting students to adopt beliefs independent of the evidential support;
- (2) any form of teaching based on methods that instil beliefs in students in such a way that they are unwilling or unable to question or evaluate those beliefs independently; or
- (3) any form of teaching that causes students to embrace a specific set of beliefs—e.g., a certain political ideology or a religious doctrine—without regard for its evidential status.

What are the measures to safeguard against Indoctrination?

- 1) Demonstrated Intention to Educate and not Indoctrinate in the form of textual evidence.
- 2) The presentation of the content of learning as being tentative, open to change, falsifiable without commitments to one specific paradigm or world view.
- 3) Learning is based on the personal evidence / experience of the learner.
- 4) Learning has a strong element of rationality at significant points in the education system. (Need to allow for child development – irrespective of the particular theory of development)

(3) STEINER'S ARGUMENTS AGAINST INDOCTRINATION

The aim of this chapter is to outline Steiner's basic philosophy that, as I will show, should preclude any form of indoctrination from the Waldorf Schools or from any anthroposophical institution. This will be followed up in the case studies to show how this plays out in particular aspects of the curriculum and methodology of Steiner Education. So the question then is: what were Steiner's own views on indoctrination? *Quite simply, Steiner was against any form of indoctrination and that he promoted what I will call "sufficient convergent knowledge".* This is the case whether that is in schools or more generally in other anthroposophical settings. He made this clear on the opening day of the first Waldorf School in September 1919:

And so, ladies and gentlemen, we want to create this Waldorf School on the basis of a new spirit. You will also have noticed what this school is *not* meant to become. In any case it is not meant to become a school to promote a particular philosophy. Anyone who says that anthroposophically orientated spiritual science is founding the Waldorf School; and that it is now going to inject its philosophy into this school will not be speaking the truth. I am stating this now on our opening day. We are not interested in imposing our "dogmas", our principles, or the content of our world-view on young people. We are not trying to bring about a dogmatic form of education... What we are attempting to create in the Waldorf School is a school based on the art of education. (Steiner 1919-24, p. 25/6)

The Question of Authority and Independence

To begin with, one of the criticisms made of Steiner/ Waldorf education is that it is based on Anthroposophy and this, in turn, is determined by the authority of Rudolf Steiner. To some opponents this very fact seems to almost prove by itself that Steiner Education is grounded in the "occult", mysticism, etc. Frequently, this is asserted without research into how Steiner defined Anthroposophy.

Mike Collins, for example, has suggested that Anthroposophy is a closed system and not open to external evaluation:

On a related issue, historically it is the presumption of the movement (as expressed by its administrative governing body, the School of Spiritual Science at Dornach, Switzerland) that those outside of it are not competent to form a judgement on anything written by Steiner unless they are suitably qualified. Such qualification must be recognised or awarded by the movement's administrative governing body. This is in effect a sort of closed system - Steiner beliefs underpin Anthroposophy and to evaluate anything at all written by Steiner one must undertake training at the movement's headquarters (or by an institution recognised by the School of Spiritual Science) but to undertake training there one must be sympathetic to Steiner beliefs. Thus even simple evaluation of Anthroposophy is only acceptable to Anthroposophists when its origin is from Anthroposophists and this, too, appeared to be potentially problematic insofar as researching the movement goes.

(Collins 2007, p. 36)

The fallacy in Collin's assertion is not difficult to demonstrate. Suppose the question concerned physics rather than Anthroposophy. People undergo long trainings to become physicists both in the content of the theories as well as in the physical methods. The question is this: is someone not qualified in physics really capable of evaluating it in any deep sense of the term? Everyone has done some physics - but an in-depth investigation requires a high level of knowledge and skills. This is no different for Anthroposophy. Steiner considered the "School of Spiritual Science" to be structurally equivalent to a University - with "trainings" comparable to them.

Moreover, consider Steiner's definition of the anthroposophical society. An anti-indoctrination principle is a part of the essential definition of Anthroposophy and the anthroposophical society as can be seen from its founding statutes:

4. The Anthroposophical Society is an entirely public organisation, and in no sense a secret society. *Without distinction of nationality, social standing, religion, scientific or artistic conviction*, any person feeling the existence of such an institution as the School of Spiritual Science — the Goetheanum in Dornach — to be justified, can become a member of the Society. The Anthroposophical Society is averse to any kind of sectarian tendency. Politics it does not consider to be among its tasks.

9. The object of the Anthroposophical Society will be the furtherance of *spiritual research*; that of the School of Spiritual Science the actual pursuit of such *research*. A *dogmatic position* in any sphere *whatsoever* shall be *excluded* from the Anthroposophical Society. (Steiner, R 1924a): (My emphasis)

It is clear from these quotes that the very definition of the anthroposophical society is in terms of *research* which is “*Without distinction of nationality, social standing, religion, scientific or artistic conviction*” and within which *dogma is excluded*. This means that an individual’s relationship to Anthroposophy is defined in terms of research, not any specific conviction. One could be a scientific empiricist or rationalist; an artistic impressionist or expressionist; a Buddhist, Christian, Muslim, Hindu, Jew – any religious conviction, or none: it is the research perspective that matters. In other words, an anti-indoctrination principle is embedded into the very definition of the anthroposophical society. Individuals within it are seen as supporters of research or as researchers who need no *specific* conviction other than feeling that such research as a worthy thing to do. Within this research community one could have any conviction; one does not need to agree with others, nor should one even be dogmatic about the views of others. The only requirement is openminded research and the willingness to be tolerant of the research-based convictions of others. Within this framework it is possible to have any scientific, artistic and religious conviction. In principle, although not likely, one could even be a materialist – all one needs is the willingness to see the “spiritual” as being worthy of research. This is what Steiner meant by “spiritual science” – an attempt to research the spirit. This can be done independently of, or in collaboration with, the convictions of others. Through research, for Steiner, one could come to many kinds of convictions, but this, in itself, would not exclude one from the anthroposophical society. In other words, an anti-indoctrination principle is a part of the essential nature of Anthroposophy and its society. So when Steiner Education teacher courses refer to a “commitment to Anthroposophy”, what does this mean? *This is simple: it is a commitment to a free, anti-indoctrination, research activity.*

Of course, this does not entirely solve the problem, critics would no doubt say “research in terms of what – the spirit, clairvoyance, gnomes?”. But, as I will show later, Steiner’s ideas of research are not restricted to so-called “spiritual perception” or even “clairvoyance”: they also

include research into all fields using the relatively normal methods of natural and cultural research.

Moreover, Steiner often emphasised the importance of Ideas in the researching of “spiritual science”. On the 20 January 1924, Steiner gave a talk on “*The School of Spiritual Science*” as part of the re-founding of the anthroposophical society:

It is essential that spiritual knowledge first comes before men with its results, discovered by those who know the path to spiritual seership. To think that these results can be acknowledged only by such as are able to find for themselves is a prejudice. This prejudice begets another of its kind, in the idea that those who do acknowledge the results of spiritual research give themselves up to *blind authority*... It is his [the spiritual researcher] further task to express certain domains of what is revealed to his spiritual sight in the form of *ideas*... Every one who makes them living in his soul will find that the ideas thus gained are founded in themselves... No one need accept them on blind faith... ideas can afford mutual proof, one of another. (Steiner 1924c, p. 18/9)(My emphasis)

For Steiner, understanding and researching the *Ideas* is already a form of spiritual science. It can be done without recourse to personal “spiritual seership” and can in itself provide a degree of proof independent of authority and blind faith. Rather than indoctrination based on authority, Steiner saw the very core of the anthroposophical society, i.e. the school of spiritual science, as being grounded in the independent, free, *reason-based* research, into the *Ideas* derived from spiritual perception. This is also evidenced by his earlier work when he argued that a person: “with good *reasoning* faculty” [may be] “able to correct” [supersensible research] (Steiner 1909/69, p. 106)... Pure thinking is itself already a supersensible [spiritual] activity... Hence a certain school of spiritual-scientific research regards *pure thinking* as the soundest kind of first step in any spiritual-scientific training (Steiner 1909/69, p. 107) (My emphasis).

Steiner’s anti-authoritarianism can be found in his earlier work “*The Philosophy of Freedom (Spiritual Activity)*”:

It means moral progress when man does not simply take the command of an outer or inner authority as motive for his action, but strives to recognize the reason why

a particular principle of conduct should act as motive in him. This is the advance from morality based on authority, to conduct based on moral insight.

(Steiner 1894/1963, p. 171)(My emphasis)

This is a theme that can be seen reflected in all of his works and which he asserts as being a part of the very definition of Anthroposophy.

Steiner also emphasised the need to take a non-authoritarian, non-indoctrinarian, position concerning his own convictions as well as those of others.

I beg of you not to accept as an article of faith whatever I have said... not to accept my statements as authoritative. I beseech you to abjure the principle of authority, for that principle would be deleterious to our Movement... *Take the most recent achievements of natural science... take the results of historical and religious research... The more you test them, the more you find them confirmed from this source.* You must accept *nothing on authority....* I should like to impress on you, therefore, that it is not anthroposophical to accept a statement on the authority of this or that person; but it is truly anthroposophical to let oneself be stimulated by Spiritual Science and to verify what is communicated by life itself. (Steiner 1910/70, p. 182/3)(My emphasis)

Steiner's advice is not to accept his authority, but to test out, research, anthroposophical ideas in relation to recent natural science, historical and religious research. His recommendation is directed towards finding possible fruitful connections to different fields as well as to other "paradigms". Rather than the isolationist views of real indoctrination, Steiner intended that whatever ideas were proposed by Anthroposophy that they be integrated with and tested through modern science, etc. Moreover, as can be seen, he argued that not to do so is not anthroposophical. By implication, for him, part of the very definition of Anthroposophy is in terms of the most *recent research* in modern society. In other words, Steiner viewed Anthroposophy not as an isolated paradigm (with implications of indoctrination), but one which included and overlapped with, *by necessity of its definition*, research into modern science, history and religion, etc. Taking this to be the case, then when critics claim that

Anthroposophy is a problem, then, logically, they are also implying that modern science is a problem! Somehow, I don't think they would want that.

Not only that, but Steiner bemoaned the role that authority plays in everyday life, arguing that it is against people's fundamental independence. In the lecture series "*Human Values in Education*" he argues:

In life, we are dealing not only with people who remain at the imitative stage, but also with those who remain essentially at the stage that develops fully between the change of teeth and puberty. In fact, there are many such people, and for them this stage continues into later life. They cannot go much further, and the attributes that should develop in later years can do so only in a limited way. They remain at the stage where they look for the support of authority. If such people did not exist, there would be no tendency today to form sects and the like, because sectarian associations are based on the fact that their followers are not required to think; they leave the thinking to others and follow their leaders. In certain areas of life, however, people remain largely at the stage of authority. For instance, when it is a matter of forming a judgment about something scientific, people do not take the trouble to investigate it themselves, but ask for the conclusion of an expert or specialist who lectures at a universities. This is the principle of authority.

(Steiner 1924b, p. 65/6)

He goes on in the same series to describe how this reliance on authority manifests in medicine, law and science:

The Anthroposophical Society should really consist only of those who are outgrowing authority and who recognize only the principle of true insight. This is little understood by people outside the society, who continually assert that Anthroposophy is based on **authority**. In fact, the exact opposite is true; the principle of authority must be outgrown through the kind of understanding and discernment fostered by Anthroposophy. (Steiner 1924b, p. 66) (My Emphasis)

Clearly then, Steiner saw the definition of Anthroposophy as being in opposition to any kind of authority. The resistance to “think for yourself” is not something Steiner would have agreed with either in relation to himself or anyone else.

So how does this stand in relationship to Steiner / Waldorf schools? In the lecture series “*Faculty Meetings with Rudolf Steiner*”, he argues against the principles of authority and implicitly against the indoctrination of teachers:

I would ask that you take what I have to say about this very *seriously* and *precisely*. You should not accept what I have to say simply upon authority in the normal sense of the word... The relationship must be one in which you accept everything said through a completely free will... If in our times we wanted to achieve something through authority, whether it be the authority of suggestion or any of the other numerous ways of affecting the soul, then that would eventually reveal itself as a great mistake... No other relationship may exist.... *neither I nor anyone else wants something against the will of any member of the faculty*. (Steiner 1919-22 p. 172/3)(My emphasis)

A part of this is the conviction that Waldorf teachers should be free in their educational activities:

Naturally, if you want to work in this way you cannot expect to be given instructions for every detail, but only an *indication* of the path to be followed. And so you can build on nothing else but absolute freedom in this method of education arising out of Anthroposophy, though this *freedom* must include the free creative imagination of the teacher and educator. (Steiner 1924/95, p. 27)(My emphasis)

[In the Waldorf School] The same things are taught but in completely different ways, for a free creative imagination pervades the class. There are no prescribed rules for teaching in the Waldorf School, but only one unifying spirit that permeates the whole. It is very important that you understand this. Teachers are *autonomous*. (Steiner 1924/95, p. 29) (My emphasis)

As we have seen, one of Gregorie Perra's persistent arguments is that Steiner Education not only indoctrinates children, it also indoctrinates the teachers and the parents. What this above clearly shows is that Steiner wanted the teachers to follow their own "free will". Rather than seeing Anthroposophy and the Education as a form of indoctrination based on his authority, Steiner saw them as research possibilities based on the independence of the teacher and the schools. Whilst it is fairly obvious that Steiner provided the insights for the pedagogy and curriculum, it was not his intention that teachers blindly follow them, to do so would be, in his own words, a "great mistake"!

This was equally the case in the school's relationship to the parents. Rather than indoctrination of the parents as Perra claims, Steiner argues for their free understanding:

Therefore we must present our intentions to our contemporaries in a clearly understandable form, in a form that can engender understanding. Above all, we count on the understanding of those who entrust their children to us, who therefore have a love of the Waldorf School. We count on them being able to grasp the thoughts, feelings and will impulses that sustain us. *Thus, we would like first and foremost to establish a relationship between the school and the parents that does not rely on faith in authority.* (Steiner 1919-24, p. 192)(My emphasis).

Steiner's hope was for the parents to understand, and perhaps love, the "thoughts, feelings and will impulses" that underlay the school. His idea was not that these impulses should be simply accepted as a given, as would be the case in authoritarianism, but that the school had a task to explain them coupled together with the parents free will.

A Method Towards Freedom

The next point to make is that Steiner recommended that teachers be open about the relation of the education to Anthroposophy and that it is primarily a "method":

If, therefore we are asked what the basis of the new *method* of education should be, our answer is: Anthroposophy must be that basis... above all you must speak and think truthfully. So if anyone asks you how to become a good teacher you must say: Make Anthroposophy your foundation. You must not deny Anthroposophy;

for only by this means can you acquire your knowledge of the human being.
(Steiner 1924/95, p. 4)(My emphasis)

This first point to make about this is that here, is that this “openness” about “speaking and thinking truthfully” and that “you must not deny Anthroposophy” is a safeguard against indoctrination. One of the criticisms of Waldorf Education is that it is not open about its base in Anthroposophy. Due to this lack it supposedly indoctrinates the parents as well as new teachers. Clearly, this principle of openness refutes this accusation.

Secondly, as in the previous paragraphs, Steiner saw Anthroposophy as a research method. This is what he means when he uses the word “acquire”. In that sense, it includes an anti-indoctrination principle in relation to the teachers. Whilst it is true that Steiner saw the framework of this in terms of “body, soul and spirit” (Steiner R 1924/95, p. 4), it is conceived as a research activity to be carried out by each individual – who may well come to a different conviction to others. Indoctrination does not allow individuals to come to their own convictions: the very definition of it is in terms of a “one view” only position.

When it comes to the children, Steiner argued against indoctrination into a particular world view:

We can only say that the Waldorf School is good; *nothing in the school is planned so that it promotes any particular world view*. In terms of religious instruction, the Catholic children are taught by a Catholic priest, the evangelical children by an evangelical priest; and because there are so many in Germany belong to no religious community, we had to arrange a “free religion” class. Otherwise the children would have had no religious teaching at all... It is true that Anthroposophy is a worldview, and we certainly do not want to bring that into our school. (Steiner 1919-22, p. 41)(My emphasis)

Nor do we have any desire to introduce Anthroposophy to the school, because we are not a sect. We are concerned only with matters that are universally human.

(Steiner 2004, p. 192)(My emphasis)

Present-day conditions necessitated that this basis in Anthroposophy should not produce a school that teaches a certain world view, a school in which Anthroposophy would be taught. That was never the intention... It was our aim that the anthroposophic impetus should be expressed *not* in the *content* of the classes but in the *way* classes were taught, in the manner in which the whole school system was handled; that this impetus be manifested in the specific kind, and the different methods, of instruction. Once an anthroposophist has stimulated his classes through his anthroposophic will, the fertilization of the teaching process shows precisely what a vitalizing effect Anthroposophy has when it is implemented in this way. (Steiner, 1920) (My emphasis)

In these paragraphs, Steiner emphasises the distinction between method and content. He is quite clear that the content of Anthroposophy should not be taught to children. In the next paragraphs he is even more emphatic about it:

Please understand that a Waldorf school - or any school that might spring from the anthroposophic movement—would never wish to teach Anthroposophy as it exists today. I would consider this the *worst thing we could do*. Anthroposophy in its present form is a subject for adults and, as you can see from the colour of their hair, often quite mature adults. Consequently, spiritual science is presented through literature and word of mouth in a form appropriate only to adults. I should consider the presentation to students of anything from my books *Theosophy* or *How to Know Higher Worlds* the worst possible use of this material; it simply must not happen. (Steiner 1921/22, p. 122)(My emphasis)

But we must eradicate from a true art of education any attempt to *indoctrinate* young people into our own particular ideology. (Steiner 1921/22, p. 272)

The principle of the “universal human” (I described this in terms of various areas of education) is expressed by Waldorf education. It does not in any way promote a particular philosophy or religious conviction. In this sense, as an art of education

derived from spiritual science, it has been absolutely essential for Waldorf schools to remove any hint of being “anthroposophic schools”. They absolutely cannot be anything of the sort. There must be daily efforts to avoid falling into Anthroposophic biases, shall we say, because of excessive enthusiasm and honest conviction on the part of teachers. Such conviction is present in the Waldorf teachers, of course, because they are anthroposophists. But the fundamental question of Waldorf education is the human being as such, not human beings as followers of any particular philosophy... We never try to introduce theoretical spiritual science into the school; this would be absolutely incorrect. Thus far, spiritual science has been presented to adults, and its ideas and concepts are thus clothed in a way suited to them. Merely to take anthroposophic literature intended for adults and introduce that to children would *distort the whole principle of Waldorf education*. (Steiner 1923, p. 164/5)(My emphasis)

The distinction he makes here is crucial to the Nature of Steiner / Waldorf education. For Steiner, it is the “universally human” which matters, not the inculcation of beliefs into children: the content of Anthroposophy must be kept separate from the children. For him this “universally human” is the result of an ongoing research process by the teacher and which helps with the method of the education. This requires of the teacher a self-consciousness of their own convictions and the deliberate intent not to “indoctrinate” the children with them. I will return to this later when I consider the role of method in the context of child development and pedagogy.

Anthroposophical Content and the Question of Sufficient Convergent Knowledge

Despite the fact that Steiner said that Anthroposophy should not be taught in the Waldorf School, there is an extenuating case when he thought this was possible. This case is what here we will call ***convergent truth*** or ***sufficient convergent knowledge***. There are a number of nuances to this which will be discussed in the following.

Steiner does not totally exclude the possibility of some of the content of Anthroposophy being a part of the education:

We also need a second thing. The older students often mentioned that we emphasize that the Waldorf School is not to be an anthroposophical school. That

is one of the questions we need to handle very seriously. You need to make the children aware that they are receiving the *objective truth*, and *if this occasionally appears anthroposophical, it is not Anthroposophy that is at fault*. Things are that way because Anthroposophy has something to say about *objective truth*. It is the material that causes what is said to be anthroposophical. We certainly may not go to the other extreme, where people would say that Anthroposophy may not be brought into the school. Anthroposophy will be in the school when it is *objectively justified*, that is, when it is called for by the material itself.

(Steiner 1919-21, p. 495)(My emphasis)

No doubt this would cause considerable concern for the critics as one convoluted interpretation of this quote sees it as an assertion that the propositions of Anthroposophy are *by definition* objective truth. *This is not what it means*. The question here is to do with objective truth and objective justification *independent* of any paradigm, including Anthroposophy. The key question is not whether or not the content of Anthroposophy is taught. Steiner is making a *contingency argument* for anthroposophical content:

If it is objectively true and *if* the teacher can objectively justify it. The message is simple: if this cannot be done then the content should *not* be taught.

So the question is: how and when does one know if an aspect of Anthroposophy represents the objective truth or if it can be objectively justified? *This can be done through the principle of convergent truth or truth-likeness*, what Popper (1963) called “*verisimilitude*”. As shown earlier, Steiner was of the view that anthroposophical ideas should be tested out through modern research as well as the individual’s own epistemological activities through the correct linkage of *Observation* and *Thinking*. In other words, this can be achieved by adhering to extended version of the generally accepted view of modern philosophy of science: “*the correspondence theory of truth*”. If this can be done, then there is no principle objection to the teaching of some “anthroposophical” content in the schools. In other words: this depends on the research of the teacher. But it also has to be born in mind, that when “anthroposophical” content is tested in this way, then it is no longer uniquely “anthroposophical” but is *sufficiently convergent knowledge* that identifies with that of natural science and history, etc. This is one of the reasons why the “anthroposophical *versus* science” argument of the critics is invalid: because at this point there is sufficient convergence and identity of the two. Of course, this also allows

for the fact there may be some divergence of interpretation, of theory, but this would need to be tested through the scientific practice of observation and rational theorising.

Conclusion: Steiner's Views on Indoctrination and Sufficient Convergent Knowledge

- From a philosophical perspective, there should be no indoctrination in Waldorf Schools or in Anthroposophy.
- Anthroposophy can be taught in schools *if and only if* it can be *objectively justified* by testing through:
 - 1) Results of modern science,
 - 2) Historical research,
 - 3) Religious research,
 - 4) Presuppositionless knowledge,
 - 5) Testing knowledge through theory and observation,
 - 6) Accepting the modern sciences may have a number of interpretational paradigms.
 - 7) Not accepting authoritarianism in any field or research.

In other words: Anthroposophy within Waldorf Education is founded on a *research activity* not a doctrine or ideology.

(4) DEFINING SCIENCE AND PSEUDOSCIENCE: A BEGINNING

Introduction: Science, Pseudoscience and the Scope of Anthroposophy

The main arguments I will provide will be covered in the text “*Waldorf: Science or Pseudoscience*”, but here I wish to make a couple of salient points. I will use this section just to propose a few relevant ideas for the question of indoctrination.

It was stated in the above that two of the most fundamental elements in the definition of indoctrination are those of rationality and evidence. These are seen by many as the cornerstones of modern science. As such, any contravention of them is pseudoscience and leads to indoctrination in the context of education (see also Schieren (2015) and Kiersch (2015)).

One of the fundamental mistakes made by critics of Anthroposophy is to assume that it is about some vague mystical world beyond the knowledge of the average person and only accessible to so-called “clairvoyants” (whatever that may mean). This is frequently coupled with the assumption that the word “spirit” refers to something equally as strange and alien such as gnomes, angels and fairies, etc. This then leads on the pseudoscience assertion and thereby indoctrination.

This chapter shows that neither of these assumptions is true and that Anthroposophy has a wide range of genuinely scientific research methods which lead to a diverse understanding of reality which investigates not only the physical but also the soul and the spiritual. Steiner’s “spiritual science” is then shown to be a genuine science based on methods compatible with those of modern science.

On the Nature of Science, Pseudo-science and the Demarcation Problem

If an assertion is made that a “theory” is a kind of proposition of science or its contrary pseudoscience, there needs to be clear criteria as to what the latter are. This is referred to by philosophers as the “demarcation problem” (Popper 1963). It can also be associated with the debate about what philosophers call the “under-determination of theory by data” (Blackburn 2006) and the principle of “inference to the best explanation” (Cartwright 1999).

In chapter 1, I indicated the British Humanist Association's concern about the scientific status of Anthroposophy and Waldorf education: "The BHA has a large number of varied concerns about the state funding of Steiner schools... These concerns range from the quality of education provided, to pseudoscience on the curriculum... The human rights implications of state funded Steiner schools have not been properly considered... We are deeply concerned about the state funding of Steiner schools, in particular due to the *pseudoscientific* nature of the curriculum" (BHA 2014) (My emphasis). These concerns are a part of a wider campaign against what they consider to be "faith schools", they are not just about Steiner schools. To the BHA, science should be the centre of modern education and that faith should be kept separate from it: "The scientific method has provided a consistently reliable way of finding answers, albeit provisional, to questions about the nature and behaviour of things. It is rational, universal, enquiry- and evidence-based, and one of humanity's greatest achievements. It is our position that the science curriculum in schools should make direct reference to the value of science as a way of finding out knowledge. It should cover the historical development of scientific method and discovery and its impact on society. The general contextual understanding this would provide is of greater importance for the majority of children who will not pursue a scientific specialism. It is also our position that non-scientific or un-evidenced theories or approaches should never be taught as if they were scientific or evidenced." (BHA, *Say no to Faith Schools*).

Of course, the key elements here are evidence and rationality, the two accepted cornerstones of science – for them everything else in the curriculum should not be taught "*as if* they were scientific or evidenced". The message here then is that only science *as they conceive it* is properly grounded. This has a particular manifestation in their advocacy of evolutionism: "Evolution is the most important idea underlying biological science. It is a key concept that children should be introduced to at an early stage so as to protect them from popular misconceptions ('it is all a matter of chance') and religious fallacies (such as arguments from design) and ensure a firm scientific understanding when they study it in more detail and depth later on (which they should). An understanding of evolution is central to understanding all aspects of biology, from human behaviour to the genetic basis of disease, to ecological relationships and how the environment affects the development and diversity of life on earth. As such it should be a central feature of – not, as is currently too often the case, marginal to – the study of school biology." (BHA in "*Say no to Faith Schools*").

The problem is that by itself it begins to look a lot like indoctrination. The theory of evolution is not a monolith with only one interpretation, even within scientific circles. So the real question is how science arrives at theories. At this point the BHA do not discuss the most important question, however, namely: *what is science?* Is science just theory *content* or is it an *activity*? Nor do they discuss what constitutes evidence or rationality, or even if they are sufficient to describe the scientific activity.

Critics of Anthroposophy and Waldorf Education have long argued that they are forms of pseudoscience or, at least, that Steiner's ideas on science are unreliable and should be rejected. This is even said by some who are otherwise sympathetic to Waldorf Education. An example of this position is the following:

As a first step Waldorf should disregard Rudolf Steiner and Anthroposophy as the source of accurate scientific concepts. The basis for this recommendation is that Steiner's teachings do not pass the tests of *empiricism* (a,b,c and d), are not testable by anyone (e), have not changed much, if any, since Steiner introduced them (f), and rely on paranormal statements that cannot be verified (g). Accepting many of Rudolf Steiner's "scientific" indications in light of the absence of empirical evidence violates the core premises of the scientific paradigm. The anthroposophical argument is that Rudolf Steiner applied empirical investigations in the spiritual world where he garnered higher spiritual truths, but even if this turns out to be accurate it must be discarded as scientifically valid because it cannot be replicated by anyone. If and when the scientific paradigm can ever be overturned with an anthroposophical paradigm because a preponderance of empirical evidence demands it, anthroposophists will have reason to celebrate; but there is little in the current paradigm to suggest this is likely. (Jelinek 2006, p. 11/12)(my emphasis)

The basic assumption of this view is that science is uniquely defined by empiricism. Whilst it is self-evident that the empirical element is crucial to science, the question is: can science actually be science if that was all there was to it? The second question that arises from this quote is how it is assumed that Steiner's science is only about the so-called "supersensible"?

One of the milder critics of Anthroposophy and Steiner education is the well known historian of science Michael Ruse: “I have never myself been attracted to Anthroposophy, but I have grown to like many of its enthusiasts (including my still-active step-mother), and have a certain respect – if tinged occasionally with amusement – for its philosophy and activities. I think all of the stuff about angels and spirit forces is pretty daft... But I use this little personal story for some more general points I want to make about science and democracy, or more particularly – for I consider this to be true of much of the Steiner output – pseudo-science and democracy... let me give you the criteria that I favour for real science:

1. It is guided by *natural law*;
2. It has to be explanatory by reference to natural law;
3. It is testable against the empirical world;
4. Its conclusions are tentative, i.e. are not necessarily the final word; and
5. It is *falsifiable*.” (Ruse 1988 referencing Popper 1963)

From: Democracy and Pseudo-Science, *Rudolf Steiner and Anthroposophy*, by Michael Ruse, in *Logos*, online.

1 & 2 mean that anything that is not nature is automatically excluded from science; this includes inner states of consciousness, emotions, or the spirit. We could not, by this view, have a science of our *inner selves* or know what we think or feel before externally expressed. Likewise, for criteria 3 to be correct the only way of testing a theory / hypothesis is through the sense-perceptible world. For 4 & 5, these are the normally acceptable principles of science which were also accepted by Steiner as I have shown and will show further.

As a consequence, it needs to be noted that the principle of “inference to the best explanation” gives an opening to anthroposophical metaphysics. Taking the argument from my book Rose (2009a), if it can be argued that life, sentience and self are not reducible and self-emergent, then ontologically speaking it is reasonable to infer the best explanation; that such things actually exist, or at least *it is scientific to infer their existence*. In this way, the idea of physical, life, sentient and ego/spirit forces can be scientifically inferred to exist. The fact that their existence can only be confirmed or refuted at some future date does not invalidate their scientific status: as a matter of fact much of what constitutes modern science is about such propositional existence.

5) STEINER'S CHILD DEVELOPMENT CONCEPT AND THE FREEDOM VERSUS INDOCTRINATION QUESTION

One of the questions that arose in chapter 2 concerns the role of the educational *process* (or method) rather than the *content*. The primary question here is whether or not Steiner Education provides a process / method that allows for the cultivation of freedom as opposed to indoctrination. The argument I provide here is that Steiner education uses a *process / method of developmental* freedom from: freedom in play, freedom in imagination, freedom in judgement to, ultimately, freedom in ethical individualism. This is intimately tied in with Steiner's view on child development and human development generally. In this, child ontogeny is, for Steiner, the essential ground for all pedagogy. His overarching principle is one of *discovering* the *innate nature* of the child and adapting the ways of teaching to it: on a ground level, this is the opposite of the indoctrination process. The outline for this is depicted in the figure below:

	The Developing Human Phases 			
Stage of Development	Phase 1 Physical Body 0 – 7 years	Phase 2 Life Body 7 – 14 years	Phase 3 Soul 14 – 21 years	Phase 4 I / Spirit 21 + years
Pedagogical Principles	Imitation: Perception – Will	Imagination – Memory	Independent Judgement	Freedom in Cognition and Morality. Mutual Tolerance
Level of Freedom	Freedom in Play	Freedom in Imagination	Freedom of Judgement	Freedom in Ethical Individualism. Tolerance as a Social Principle.

There are further ramifications for the 7 to 14 period which I symbolize on the basis of Steiner's "*Kingdom of Childhood*":

All within the context of Imagination		
Development ages 7-9^{1/3}: Unity of Self and World: Everything is Human – All has Soul.	Development ages 9^{1/3} – 11^{2/3}: Differentiation of Self from Nature – All is Alive	Development ages 11^{2/3}- 14: Differentiation of Life and Lifeless – nature as – Soul, Living and Lifeless.
Pedagogical Principle: Anthropomorphisms	Pedagogical Principle: Living Picture - Facts	Pedagogical Principle: Images of cause and effect

For the purposes of this book, we need to consider these ideas from the perspective of the indoctrination assertion. Indoctrination can be partly conceived in terms of an *external* social power applied to an individual (chapter 2). This is derivable from the fact that *process indoctrination* (chapter 2) requires that the determination of an individual's convictions comes from the *outside* rather than the inside (directly or indirectly). In other words, this is a pedagogical process which leads to the "intentional implantation of unshakeable beliefs" (Matheson, D and Grosvenor, T 2002, p. 7). This is a kind of force, or coercion, applied from the external social World. In a sense, one could also say that it is irrespective of the individual's own inner nature, or power, to act out of themselves.

Steiner's pedagogical principles are the complete opposite to this. Steiner argued that education should be adapted to child development not the other way around. In other words Steiner Education is based on being able to read what the innate nature of children is: it is not an imposition of social forces from the outside and irrespective of the real nature of the child:

It will always be a question of *finding out what child development demands* at each age of life. For this you need real observation and knowledge of the human being. Think once again of the two things that I have discussed, and you will see that children up to their ninth or tenth year are really demanding that the whole world of external nature be made alive, because children do not yet see themselves as

separate from this external nature; therefore we tell them fairy tales, myths, and legends. (Steiner 1924/95, p. 50)(My emphasis)

Therefore it is important to speak of everything that is around the children—plants, animals, and even stones—in a way that all these things talk to each other, that they act among themselves like human beings, that they tell each other things, that they love and hate each other. You must learn to use *anthropomorphism* in the most inventive ways and speak of plants and animals as though they were human. (Steiner 1924/95, p. 31)(My emphasis)

First and foremost children need *living pictures* where there is no question of cause and effect. Even after the tenth year these conceptions should only be brought to them in the form of *pictures*. It is only toward the twelfth year that children are ready to hear about *causes and effects*. And so those branches of knowledge that have principally to do with cause and effect in the sense of the words used today. (Steiner 1924/95, p. 51)

This “finding out what child development demands” has three general phases as outlined above as well as the middle phase (7 to 14) also being divisible into three. In each case, however, the question is not one of imposing something from the outside (as would be the case with indoctrination) but of reading the *innate* nature of children and then finding the relevant educational response in order to meet the implicit needs for the right age.

This is tied in with Steiner’s general “Freedom Principle” in Education. The question of freedom is intimately connected with articles 13 and 14 of the “*United Nations convention on the rights of the child*”. These are concerned with “Freedom of Expression” and “Freedom of thought, conscience and religion”. Indoctrination in education is clearly in conflict with these principles, so any kind of schooling which did this would come into serious problems. But as I will show, Steiner education advocates different kinds of freedom appropriate to the age phase of the child. In this, there is a gradual process of emancipation towards what Steiner called “Ethical Individualism” (Steiner 1894/63, chapter 9).

Now, in order to demonstrate the proof or refutation of a certain idea, compatibilities or incompatibilities have to be shown respectively. In the case of the indoctrination assertion, this means that textual evidence has to be shown that argues the case one way or the other. One such refutation would be that there is evidence for the principle of freedom in the education: freedom contradicts indoctrination. The following quote, as well as the later ones, demonstrates this clearly:

Therefore, the first prerequisite of Waldorf teachers is reverence for the soul and spiritual potential that children bring with them into the world. When facing the children, teachers must be filled with an awareness that they are dealing with *innately free human beings*. With this attitude, teachers can work out educational *principles and methods* that *safeguard the children's inborn freedom* so that in later life, when they look back at their school days, they will not find any infringement on their personal freedom, not even in the later effects of their education. (Steiner 1921/2, p. 198)(My emphasis)

Steiner's conviction is that human beings are born with the innate capacity for freedom. It is the teacher's task to be aware of this and to "safeguard" it as well as help cultivate this in various forms, as we shall see. This, for him, should play itself out in the principles and methods used in the pedagogical process. Not only is Steiner for freedom regarding the adult phases of life, but that education should provide as process, through its methods, in order to attain this. Not only does he promote a *goal* of freedom, but also a *method*, a *process*, to achieve it.

Phase 1: Early Childhood (yrs 0-7): Free Play

In Steiner education, there is no formal learning in the earliest age phase of child development. The primary learning principle here is that of "imitation", so great care is taken in providing an environment that is suitable to be "imitated". This notion involves a complex relationship between experience / perception and action: what the child perceives it does (sooner or later). It has to be noted though that this concept has many aspects and subtle perspectives and it certainly does not mean that children merely copy what is around them: it involves *free creative play*:

If you approach young children with such feelings (and feelings are the most potent source for those engaged in the art of education), this question will always be present in your mind as you take charge of an infant: What must I do to enable this child to develop the fullest consciousness of human *freedom* at maturity.

(Steiner 1921/2, p. 102)(My emphasis)

The primary goal from this perspective is to provide an educational process that aims towards conscious human freedom at maturity. The question for Steiner was: how do you give the groundwork for this in early years education:

The human instinct for education has created a wonderful common means of enabling young children to work on changing, modifying, and mobilizing what lives in their spirit-soul, thus providing free space for the formation of human nature. *That means is play.* That is also the way we can best occupy a child. We should not give children concepts with fixed boundaries, but rather ideas that allow the freedom to think about them, so that children can err here and there...

That is how play works. (Steiner 1911, p. 97)(My emphasis)

His answer to this question is free play. The use of the “changing, modifying, and mobilizing” idea, for Steiner, creates the possibility, in early years education, for humans to develop towards freedom. It is, in this sense, freedom in play as distinct from “freedom in life” generally. To enable this, Steiner argues against giving young children “fixed concepts” but rather allowing them the pliability of transformation in how they play. Rather than indoctrination, which requires a mere copying of what is present in the environment, Steiner advocated freedom in creative play. The idea is rooted in direct experience of that which is “worthy of imitation” (Steiner 1924/95 p. 18/19) and then moves towards free play. Rather than the mere “inculcation of unshakable ideas” devoid of evidence / experience (chapter 2), Steiner education, even in the early years phase, recommends direct experience and the “changing, modifying, and mobilizing” of the implicit ideas in free play.

Phase 2 (7 – 14): Free Imagination

For the second phase of child development, Steiner is of the conviction that there should be a shift in pedagogy to the use of free creative imagination:

Do not forget that around the change of teeth children pass over into the period of imagination and fantasy. It is not the intellect but fantasy that fills life at this age. You as teachers must also be able to develop this life of fantasy, and those who bear a true knowledge of the human being in their souls are able to do this.

(Steiner 1924/95, p. 22)

It is interesting to observe children when they learn something about the human organism—for example, the sculptural formation of skeleton or muscle formation. If they are given an artistic concept of the structure and functions of the human body, they begin to express, in a sculptural way, their ideas of the shape of some limb, not in a strict sense of imitation, but *freely and creatively*. *Our children are allowed great freedom*, even in their practical work, and they are allowed to follow their own sense of discovery. Their souls create wonderful forms once they learn to observe certain things in people or in animals with a truly artistic feeling for nature. (Steiner 1923a, p. 187)(My emphasis)

This coupling together of imagination and freedom is central to this age phase in Steiner Education. Rather than emphasising the use of the intellect, Steiner argues that free creative imagination is the right method for teaching in this time. Rather than the inculcation of “unshakable beliefs” or “fixed concepts” that lie at the core of indoctrination, Steiner wanted teachers to enable children to exercise their freedom in the creative process of imagination.

No doubt critics of Steiner would draw attention to the fact that Steiner frequently referred to the principle of authority in his educational ideas. To many this would conjure up images of authoritarianism which is one of the components of indoctrination. But this next quote shows Steiner’s own awareness of this problem as well explains what he meant by the idea:

Certainly you would not expect me, who more than thirty years ago wrote the book *Intuitive Thinking: A Philosophy of Freedom* [The “Philosophy of Freedom”], to stand here and plead authoritarian principles. Nevertheless, insofar as children

between the change of teeth and puberty are concerned, authority is absolutely necessary. It is a natural law in the life of the souls of children. Children at this particular stage in life who have not learned to look up with a *natural sense* of surrender to the authority of the adults who brought them up, the adults who educated them, cannot grow into a free human beings. Freedom is won only through a *voluntary* surrender to authority during childhood.

(Steiner 1923b, p. 54)(My emphasis)

Authority and authoritarianism are more often spoke of as an imposition of a social power from the outside of the individual. One can see how such a social power is a contravention of the individual, of their human rights, and leads to indoctrination. But this is not how Steiner conceives of “authority”:

Children can only develop the faculty of independent judgment in adulthood if they have gone through the experience of looking up to the voice of authority with uncritical veneration. Of course I am not referring to any kind of enforced authority here; *the authority I am speaking of must never be imposed externally.*

(Steiner 1923b, p. 98/99)(My emphasis)

For children of this age range, Steiner argued that there is a natural *innate* power to look up to and admire adults. From within, and not from the outside, children voluntarily follow authority. Rather than the use of an outwardly determined social force, Steiner argued that, within their own volition, children would naturally follow a “good” authority. For him “natural authority” was derived from an understanding of child development – something that is of the inner nature of children, not an outwardly determined force as would be the case within real indoctrination.

Characterisation, objective facts, etc

Phase3: Adolescence (14+): Free Judgement

In this age range, Steiner was of the conviction that there is a shift in child development from free imagination to freedom in judgement and understanding:

After puberty, around fifteen or sixteen, a change takes place in the children's inner nature, leading them from dependence on *authority* to their own sense of *freedom* and, hence, to the faculty of *independent discernment* and *understanding*. This must claim our closest attention in teaching. (Steiner 1923a p. 189) (My emphasis)

You may ask which educational ideal such an attitude comes from; it arises from complete dedication to *human freedom*. And it springs from our ideal to place human beings in the world so that they can unfold individual freedom, or, at least, in such a way that physical hindrances do not prevent them from doing so.

(Steiner 1921/2, p. 195) (My emphasis)

Therefore, once children reach fourteen or fifteen, we leave their soul nature and spirit free and, in the higher classes, appeal to their power of discernment and understanding. Such freedom in life cannot be achieved if we instil morality and religion in a dogmatic, canonical fashion. (Steiner 1923a, p. 190)

Steiner was not only of the view that young people of this age have a natural, innate, development towards freedom in judgement and understanding, but that the teachers have to give this "our closest attention". In this way, Steiner educators try to prevent imposing their own views onto the children as well as attempt to create a learning environment in which free judgement and understanding can be encouraged. Rather than an educational process which denies free judgment, as is the case with real indoctrination, it is one that actively encourages freedom.

Phase 4 (21 +): Freedom in Ethical Individualism

Whilst it is clear that Steiner schools only go up to the age of about 18 at the most, it is important to have a brief look at how Steiner envisaged the adult phases of life. It also sheds some light on the assertion that Teacher training courses in Steiner education indoctrinate the prospective teachers. For Steiner, as well as current day Teacher Educators, the principle of freedom is paramount:

At this level of morality I do not act because I acknowledge a ruler over me, an external authority, or a so-called inner voice. I do not acknowledge any external principle for my conduct, because I have found the source of my conduct within myself, namely, my love for the deed. My action will be “good” if my intuition, immersed in love, exists in the right way within the relationship between things; this can be experienced intuitively; the action will be “bad” if this is not the case. (Steiner 1963, p. 177)

To *live* in love of the action and to *let live*, having understanding for the other person's will, is the fundamental principle of *free human beings*. (Steiner 1963, p. 181)(My emphasis)

Steiner strongly argued for the importance of individual human freedom in everyday life as well as in the context of education. Moreover, he saw this idea as being the cornerstone of the emerging modern society. Rather than being committed to authoritarian principles, together with the implicit and explicit forms of indoctrination, Steiner was convinced of freedom in knowledge as well as in moral action. For him, this is coupled with what might be called a principle of tolerance whereby, in a process of reciprocity, each individual recognises the freedom of the other. Such a view is incompatible with authoritarianism and its implicit forms of indoctrination.

6) TEACHER PRINCIPLES TO COUNTERACT INDOCTRINATION

The question concerning the criterion for indoctrination as the “intentional inculcation of unshakeable ideas” outlined in chapter 2, can be traced back to the *qualities* or *attitudes* of teachers as well as any guiding principles they may hold themselves. Intentionality can be seen as an aspect of attitudes or inner dispositions and thereby relates to the question of *process* indoctrination as outlined in chapter 2. An “indoctrinary attitude”, which can lead to a *process* of indoctrination, would show itself as an *inner pre-disposition* towards the *entrapment* of both students and teachers within *one* particular world view to the exclusion of all others. I shall call this a “*closed attitude*”. To prove that this is, or is not, a part of a particular educational philosophy would require supporting, or refuting, textual evidence. Fortunately, for Steiner / Waldorf education, there is strong evidence to suggest that Steiner proposed an “*anti-indoctrination*” philosophy for the *attitudes*, and *capacities*, of teachers.

To begin with, Waldorf education has the aim of enabling the development of freedom in contradistinction to indoctrination:

The great aim at the Waldorf school is to bring up free human beings who know how direct their own lives”. (Steiner 1923, p. 201)

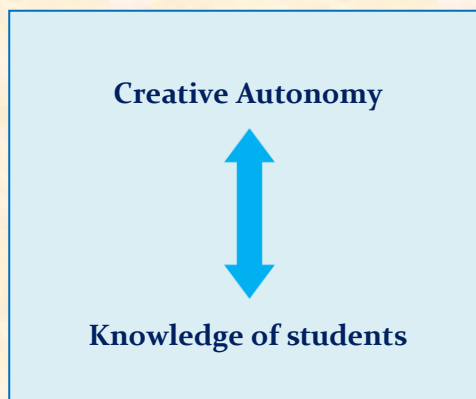
But for this to work, Steiner acknowledged the connection between education and the inner qualities of teachers:

Here you can see how much of what people call the question of education is actually a question about the *qualities* of the teacher. (Steiner 1924, p. 125) (My emphasis)

Regarding the question of indoctrination, this would suggest that the *process* through which indoctrination could occur in principle is very much dependent on if teachers are inwardly disposed towards it and proceed to impose it on the students. What this would mean is that such teachers would have no real concern about the inner nature of their students, but only their own, or what they themselves have been instructed to do through their own education. This is also a process of social power in that the students are meant to adapt to the external social forces in terms of a curriculum or specific way of learning. In Waldorf / Steiner education, this is the complete opposite:

You would never find uniformity of teaching in Classes A, B, and C. The same things are taught but in completely different ways, for a *free creative imagination* pervades the class. There are *no prescribed rules* for teaching in the Waldorf School, but only one unifying spirit that permeates the whole. It is very important that you understand this. *Teachers are autonomous*. Within this one unifying spirit they can do entirely what they think is right for themselves... you will see that you have the greatest liberty, and yet the teaching in each class is what is right for that age... They do not find it at all unreasonable. They find it excellent in its very freedom because it is based upon real *true human knowledge*. And the freedom that must prevail in the school can be seen in just such things as creating teaching matter out of imagination. (Steiner 1924, p. 29) (My emphasis)

This means that teachers in Steiner / Waldorf Schools find themselves in a continuous process of finding the balance between:



As we will see, this “balance” is a kind of creative adaptation to the development of the children through the different phases of life, as outlined in chapter 5. From the perspective of the issue here, this means that process of teaching occurs *not* by the exercise of external social power, but is *adapted* to the inner nature of the pupils. It is a space whereby the unfolding of learning is primarily directed by the child’s inner capacities as they develop over time. Simultaneously, Steiner’s proposition liberates the teacher from their own indoctrination in the exercise of free imagination or creative autonomy. In this process a balance is striven for between the freedom of the teacher and the knowledge of the capacities of the students through adaptation. This confirms Waldorf as education rather than indoctrination.

But there is a further aspect to the inner dispositions that is relevant here, namely that of the open mind:

This is why a most essential aspect in Waldorf teacher training involves *receptivity* to changes in human nature... A Waldorf teacher must be prepared to face something that will be completely different tomorrow from what it was yesterday... We need *open minds* ready to receive new wisdom each day, and a disposition that can transform accumulated knowledge into a sense of potential that leave the mind clear for the new. This keeps people healthy, fresh and active... [this] *must be a Waldorf teacher's basic mood and nature*. (Steiner, R (1922, p. 124/5. (My emphasis)

An indoctrinary disposition would not be about changes in human nature as it is concerned with the imposition of social forces, either in terms of the content that is taught or the kind of person it is trying to create. It is the open mind which can do this in relation to the changing nature of the child as well as the teaching of new and existent knowledge. An open mind is an antidote to indoctrination.

Moreover, Steiner traces the question of human freedom to the inner attitude of teachers:

You may ask which educational ideal such an *attitude* comes from; it arises from complete *dedication* to *human freedom*. And it springs from our ideal to place human beings in the world so that they can unfold individual freedom, or, at least, in such a way that physical hindrances do not prevent them from doing so.

(Steiner 1922, p. 195) (My emphasis)

It becomes clear then, that Waldorf education derives its deepest connection to being anti-indoctrinary in the teachers' inner attitude towards the growing freedom of the pupils. It is their task then to create learning environments towards freedom from out of this attitude.

This raises further questions about how this could be done. In "*Discussions with Teachers Closing Words*" (Steiner 1919, p. 180 – 182) Steiner recommended four teacher "principles" which I will call: *initiative*; *world interest*, *truthfulness* and "*universal enthusiasm*"; each of

these express a particular kind of “open attitude” or “openness” and which, therefore, refute the indoctrination assertion.

Steiner first principle proposes is “*Initiative*”:

First, teachers must make sure that they influence and work on their pupils, in a broader sense, by allowing the spirit to flow through their whole being as teachers, and also in the details of their work: how each word is spoken, and how each concept or feeling is developed. *Teachers must be people of initiative*. They must be filled with initiative. Teachers must never be careless or lazy; they must, at every moment, stand in full consciousness of what they do in the school and how they act toward the children. This is the first principle. *The teacher must be a person of initiative in everything done, great and small*. (Steiner 1919)(My emphasis)

The idea of initiative counteracts indoctrination. This can be argued from the point of view that true indoctrination would discourage initiative. If we recall from previous discussions, indoctrination can only operate within one specific paradigm. It has a tendency then to clamp down on new ideas and ways of working and reasoning. If this exists on an attitudinal level, the paradigm becomes closed, self-replicating and a form of entrapment for the individuals that operate within it. Rationality becomes confined as do the relevant emotions and actions of that context. Any initiative that exists within this is limited to the fulfilment of pre-assumed goals determined by an external authority.

Real initiative, on the other hand, can change existing realities and social givens. It does not abide by an assumed paradigm, nor rejects it, but can work within it as well as challenge the boundaries. Real initiative operates creatively within and between different paradigms and thereby is open to new possibilities within, in this case, the learning space. This openness though initiative, refutes the attitudinal element of the indoctrination assertion.

The second principle that Steiner proposed I shall call “*World Interest*”:

Second, my dear friends, we as teachers must take an interest in everything happening in the world and in whatever concerns humankind. All that is happening in the outside world and in human life must arouse our interest. It

would be deplorable if we as teachers were to shut ourselves off from anything that might interest human beings. We should take an interest in the affairs of the outside world, and we should also be able to enter into anything, great or small, that concerns every single child in our care. That is the second principle. *The teacher should be one who is interested in the being of the whole world and of humanity.* (Steiner 1919)(My emphasis)

Again, the notion of indoctrination is specified by the concept of the closed paradigm. On the level of the entrapped individual, this would restrict the interest of teachers to one particular world view. World or global interest, on the other hand, would open up the mind of the individual to that of all World views, all people, children, etc. This World Interest would transcend the barriers of the “*one paradigm indoctrination principle*” and act as a safeguard against it through the attitudes of the teachers. This is another form of “openness” that would reject the indoctrination hypothesis.

The third anti-indoctrination principle is that of “*truthfulness*”:

Third, *the teacher must be one who never compromises in the heart and mind with what is untrue.* The teacher must be true in the depths of being. Teachers must never compromise with untruth, because if they did, we would see how untruth would find its way through many channels into our teaching, especially in the way we present the subjects. Our teaching will only bear the stamp of truth when we ardently strive for truth in ourselves. (Steiner 1919)(My emphasis)

According to the definition discussed earlier, indoctrination is defined in terms of the absence of evidence and rationality or reason. Now, the idea of truth is usually defined in terms of the right union of a concept and perception, or sometimes of theory and observation. Truthfulness, then, is an attitude in which striving to find the truth, the correct union between concept and percept, idea and reality, theory and fact, is embedded in the character of the person, in this case the teacher. In that sense, truthfulness is an attitude that rejects indoctrination because the latter operates “without reason or evidence”. Truthfulness, on the other hand, aims to work with both – it openness to what is true rather than a closed-mindedness around the blindly believed (as is the case with indoctrination).

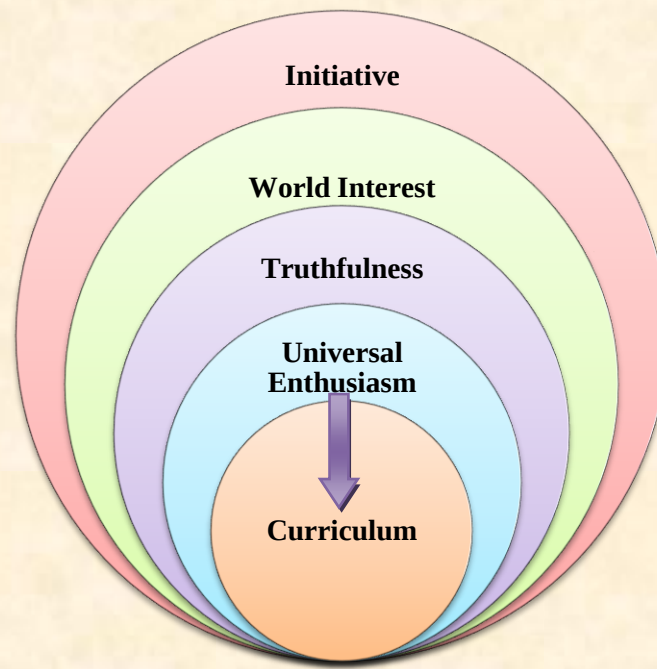
The forth principle that Steiner suggested is what I will call “*universal enthusiasm*”:

And now comes something more easily said than done, but it is, nevertheless, also a golden rule for the teacher’s calling. *The teacher must never get stale or grow sour*. Cherish a mood of soul that is fresh and healthy! No getting stale and sour! This must be the teacher’s endeavour. (Steiner 1919)(My emphasis)

Universal enthusiasm here refers to a proposed emotional state of teachers. By itself, it does not contradict the definition of indoctrination; clearly, those who wish to indoctrinate others can be as enthusiastic as those that do not. But when coupled together with the other three it shows itself to be also a universal enthusiasm for initiative, world interest and truthfulness. As such it is an emotional complement to such anti-indoctrination principles. In that sense, it is an emotional safeguard against indoctrination.

Steiner’s final words in this text exemplify his general anti-indoctrination stance towards the teachers: “Of course many things should really be said many times, but I do not want to make you into teaching machines, but into free independent teachers” (Steiner 1919, p. 181). It is not just that Steiner wanted to suggest isolated principles for blind mechanical adherence, but that, for him, the freedom of the teachers should also be valued. The two things work together: the four principles provide the possibility for the non-indoctrination of the children as well as establishing teacher freedom as core to the pedagogy.

Moreover, these “teacher principles” play into the curriculum and act as guarantees of non-indoctrination of the children. Accepting that “initiative; world interest, truthfulness and universal enthusiasm” are anti-indoctrinary principles, these attitudinally pre-dispose the teachers to acting on the basis of this in relationship to the curriculum. I would like to represent this in the following way:



The Steiner / Waldorf curriculum is enveloped by the “teacher principles” or the “teacher attitudes”. These are of an anti-indoctrination character and lead to curriculum choices that follow suit. Rather than being a form of indoctrination, Steiner / Waldorf education provides a form of learning embedded in “initiative; world interest, truthfulness and universal enthusiasm”; and which, ultimately, leads to a pedagogy for free individuality.

7) CONTRASTING PARADIGMS AS A REFUTATION OF THE INDOCTRINATION HYPOTHESIS: *SUFFICIENT CONVERGENT KNOWLEDGE*

In chapter 2, I discussed the notion that one of the ways to overcome indoctrination within an educational context is through the use of contrasting paradigms. To contrast and evaluate paradigms, I argued, means to escape the indoctrinary process of inculcating a *singular* mindset by investigating the boundaries and differences between world views or sub-sets of world views. What I am arguing here is not just valid for Waldorf Education, but all forms of education: *to avoid indoctrination a critical evaluation of different paradigms is central*. Waldorf is just one example of this suggestion. However, in this chapter I want to look at a number of instances which may come up in the context of Waldorf/Steiner Education and which collectively provide an argument for transcending particular mindsets of the current age and which assume the correctness of the specific world views without further investigation. I will also connect the idea of paradigm contrast with the principle of sufficient *convergent knowledge*, as outlined in chapters 2 & 3. There are a number of nuances to this which I will explain in the text.

One thing that I need to mention at this point is the relatively wide spectrum of unusual suggestions made by Steiner in the early days of the first Waldorf School. It may be assumed by supporters and critics alike that these suggestions either should be, or are, carried forward to this day into the educational practice in Steiner Schools. I will try to show, in most cases, that this assumption cannot be substantiated and that Steiner's real intention was to encourage teacher engagement in modern research and not just of his day: teachers today are, or should be, researching their own subject as it is now and in relation to their teaching. In other words, Steiner's original more *specialised* suggestions were meant for *his* time and not necessarily for today. Hence, criticisms that are aimed at Steiner's early suggestions do not provide a valid argument for the indoctrination hypothesis *as a general principle*. Arguably, though, where these early suggestions have been carried forward, these may well be anomalous cases where teacher misunderstanding has occurred. The counter side to this is that Steiner's more *generic principles* are still valid but should not be confused with the specific suggestions.

One of the primary questions of about the indoctrination assertion is the alleged mixing of anthroposophical and contemporary scientific ideas:

The hidden nature of these Anthroposophic ideas — in the form of interpretations presented in all subjects — makes it particularly difficult for students to become aware of what is happening. How indeed can they be aware of ideas that, in their original form, are mixed with traditional teaching, like spice added in a dish, and do not at first sight contradict but extend traditional teaching? I believe that those who undergo indoctrination in creationism are somewhat more fortunate. Probably, at one time or another, the ideas they are taught will clearly clash with the objective data of current science. This is rarely possible with Anthroposophic tenets when they are more or less blended with modern scientific data. Indeed, precepts about science are constantly updated by the Anthroposophical authorities, [who] then communicate them to teachers in Waldorf schools... Students thus live with Anthroposophic ideas mixed with objective data in the subjects they are studying. (Perra 2011)

The fundamental premise in this is that, assuming that this is the case, this leads to indoctrination. *I will make the case that, provided that it is done in the right way, the contrasting of paradigms is a safeguard against indoctrination.* To do this, I will consider the ideas introduced in chapter 2: *contesting, comparative, complementary-convergent and contrasting* paradigms, in the following special case studies.

It needs to be noted at this point that Steiner recommended that the subjects taught in classes 1-8 (1-14 year olds) should avoid the presentation of *metaphysical* theories and focus on experience or what researchers call evidence. In that sense, there would be a sufficient convergence with modern science, for example, in terms of its advocacy of the empirical approach. This way, the indoctrination into existing theories is avoided and the young person's own experience and reasoning is appealed to, i.e. rather than the observations and rationality of an external authority. Where this is done it is through the evocation of the inner powers of the student rather than the social power of the authority. One can see this in Steiner's description of the most basic of learning processes:

[For example] I make an experiment. The *whole of the human being* is occupied, is asked to make an effort. This is quite enough to begin with. I then draw the children's attention away from the instruments I experimented with and repeat the

various stages. Here I am appealing to their *memory* of the direct *experience*... On the following day, we discuss the previous experiment, contemplate it, reflect on it. The children are to learn the *inherent laws*. The *cognitive* element, *thinking*, is now employed. Steiner, R (1996): Education for Adolescents, Anthroposophic Press, p. 49/50. (My emphasis)

The emphasis there is the relating the lesson to the whole nature of the *student*; to begin with this is *experience (observation)*, through *memory* leading up to *thinking* or *cognition*. The idea is to embed the learning activities in the pupil's own agency and avoid the imposition of external socio-cultural powers. Consequently, the convergence of Anthroposophy with modern science lies in the activation of the inner powers of experience/observation and in the pupil's own thinking. This leads to the *independent* discovery of natural laws of phenomena without recourse to authority. The presentation of the more theoretical aspects of modern science would be done more in the age range 14-18. In the following we will look at more specialised cases.

(7.1) The Physical Sciences: Physics and Astronomy

In Steiner/Waldorf Schools, the teaching of physics as a distinct subject normally begins in class 6 (11 to 12 years old) (Avison & Rawson, 2014, p. 314; Stockmayer 2001, p. 84) and involves the teaching of the *methodology* of physics as well as the *content*. As we will see in the below, Steiner's proposed methodology is convergent with the *empirical* aspect of modern science and which leads to *phenomenological laws*. These laws are only contesting concepts in respect of *explanatory power* in relationship to some of the *theoretical laws* of modern physics; methodologically they are a part of a complementary-convergent paradigm. On the other hand, Steiner also recommended the teaching of the newest discoveries to be found in modern physics. In that sense, he also advocated the teaching of the content of a complementary-convergent paradigm.

Moreover, one of the things that can be noted in these is the *connection*, for Steiner, between method and content. As shown earlier in his "*Theory of Knowledge*", he argued for a particular form of empiricism, sometimes referred to as phenomenology. Whether this is the correct term for this I will leave aside for now, but what can certainly be seen is that Steiner's

empiricism is no mere noting and naming of phenomena. His approach is to attain what Cartwright (1986 & 1996) called “phenomenological laws”:

A teacher: I am having trouble with the law of conservation of energy in thermodynamics.

Dr. Steiner: Why are you having difficulties? You must endeavour to gradually bring these things into what Goethe called “*archetypal phenomena*”. That is, to treat them only as phenomena. You can certainly not treat the law of conservation of energy as was done previously: It is only a hypothesis, not a law. And there is another thing. You can teach about the spectrum. That is a phenomenon. But people treat the law of conservation of energy as a philosophical law. We should treat the mechanical equivalent of heat in a different way. It is a phenomenon. Now, why shouldn't we remain strictly within phenomenology? Today, people create such laws about things that are actually phenomena. It is simply nonsense that people call something like the law of gravity, a law. Such things are phenomena, not laws. You will find that you can keep such so-called laws entirely out of physics by transforming them into phenomena and grouping them as *primary* and *secondary* phenomena. If you described the so-called laws of Atwood's gravitational machine when you teach about gravity, they are actually phenomena and not laws. (Steiner 1919-22, p. 28/9)(My emphasis)

One can see in this that Steiner wanted to avoid, for this age phase, the teaching of so-called “laws” of physics. What is meant by this? As can be seen from the connection to the chapter “*inorganic nature*”, in his “*Theory of Knowledge*”, Steiner is advocating a strenuous empiricism that stays with the phenomena and does not lose itself in speculative metaphysical laws that cannot be observed, or with what Cartwright (1986 & 1996) called “*theoretical laws and models*”. Steiner's approach was to avoid that which cannot be observed and attempt to create a *system* of primary and secondary phenomena. The primary phenomena are those natural phenomena that can be observed directly and which cannot be reduced to anything simpler or explained in terms of unobservable metaphysical realities. The secondary phenomena are those which arise due to the union of primary phenomena. For Steiner, the aim of physics is the unification of all primary phenomena into a total system. This, for Steiner, culminates in cosmology.

So is this indoctrination? If we recall from chapter 2, two of the criteria for the avoidance of indoctrination are that of evidence and rationality. Clearly, Steiner wanted the teaching of physics to be grounded in the evidence provided through observation. In doing this, Steiner is simultaneously adhering to the empiricist element of scientific method as well as attempting to avoid indoctrination by not “inculcating” theoretical and metaphysical beliefs that cannot be tested directly by the students.

This can certainly be seen in the next quote:

How many of the experiments have the students mastered? In electricity, it is, of course, necessary to present the *observations* very *rationally* with little theoretical speculation. That is something that probably does not stick with them too well. From a purely didactic perspective, it should not stick well. I think in this case we should have the ideal of developing the necessary concepts out of the experiment and drawing on the blackboard as little as possible. *We should develop the whole thing out of the experiment. You can also try your Socratic method.* When you develop something theoretically, the Socratic method is not of much help, since how can the children know anything? You can hardly ask them questions. Since you can do experiments, I would certainly take advantage of those opportunities. (Steiner 1919-22, p. 195)(My emphasis)

There are a number of different points that can be made from this quote and which tie in with the question of science versus pseudoscience and indoctrination. Firstly, there is again the affirmation of the role of observation and with that the role of evidence. This clearly affirms one aspect of the anti-indoctrination approach. Secondly, Steiner recommends the use of rationality, by use of the Socratic Method in discussing the phenomena that can actually be observed. In that sense, the other element of anti-indoctrination is affirmed. Thirdly, the use of experiments is central for Steiner in physics teaching as it provides a way of enriching and systematising the evidential base rather than merely “observing and noting the phenomena”. In other words, Steiner wanted a methodological and systematic approach to physics teaching. Nothing could be further from indoctrination than this.

But it has to be stated that Steiner did not avoid the use of the content of existing physics in his recommendations:

A teacher: Last year, we divided geography and I presented something about astronomy.

Dr. Steiner: Of course, in that connection, we should look at the Doppler Effect, that is, the movement of the stars in the line of vision. You did not discuss the movement of stars in the line of vision? You need to include everything the children need in order to understand the movement of the stars in the line of vision. You should work toward that goal.

A teacher: Then you don't want any optics in physics? Only heat, mechanics, and electricity?

Dr. Steiner: You can add as much of optics as you need to explain the Doppler Effect.

A teacher: Are the conclusions about the movement of stars from shifts in spectral lines justified?

Dr. Steiner: Why not? It is certainly correct to conclude that if you have two spectra and find one line in one position and the same line in a different position in the other one; that has something to do with different distances. That is a proper conclusion. (Steiner 1919-22, p. 179/80)

As is well known in modern science, the "Doppler effect" is a very significant principle not just in acoustics but also in the foundations of contemporary optics and thereafter modern cosmology. Such an idea allows scientists to deduce the theory that the observable universe is moving away from a common centre. Without this idea, there would be no concept of the "big bang" (Hawking 1992) or of "inflationary cosmology" (Guth 1998). Steiner, in fact, suggested that teachers in the Waldorf School taught about the newest ideas that were available:

In physics—this is something I was able to thoroughly try out in my teaching—it is very good for children at this age when you present them with the newest discoveries in physics, for instance, wireless telegraphy and x-rays, including such things as alpha, beta, and gamma rays. These are things you can use to awaken further interest in the children. (Steiner 1919-22, p. 358)

In terms of the indoctrination question, this means that Steiner wanted teachers to teach in relation to the *content* of the current scientific paradigm. There is no suggestion here that he wanted his own ideas to be taught on their own, he simply thought that the empirical-phenomenological method is a better ground for evidence and rationality in science. This is especially the case if such evidence and rationality is to be embedded in the individual powers of the pupils rather than the social powers of authority, thereby avoiding indoctrination and cultivating true education.

7.2) The Life Sciences and the Question of Indoctrination

In this section, I want to address two basic questions:

- 1) Are Steiner and Mainstream approaches to life sciences education complementary / contrasting or conflicting paradigms?
- 2) Are either of them forms of indoctrination?

7.2a) Evolution

In the “DfE, *Academy and Free School: Master Funding Agreement*, July 2014” the British Government issued a directive concerning the teaching of evolution in schools. This does not just pertain to mainstream schools, but also to Academies and Free Schools. This means that this also applies to Steiner Academies and Free Schools. It is important then that the question of teaching evolution, and life science generally, needs to be addressed especially as critics of Steiner Education accuse it of teaching pseudoscience and thereby indoctrinating the children. The particular Government directive is as follows:

2.25 The Academy Trust must provide for the teaching of evolution as a comprehensive, coherent and extensively evidenced theory. In respect of any Alternative Provision Academies and 16-19 Academies, the Academy Trust must do this where relevant to the curriculum. (DfE July 2014, p. 18).

What this means is explained in DfE (2013): *Science programmes of study: key stages 1 and 2*, National curriculum in England:

Evolution and inheritance

Pupils should be taught to:

recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (DfE 2013, p. 32)

So how does this relate to Steiner / Waldorf Education? The life sciences play an important part in the context of Steiner education. Normally, official life science, or biology, does not begin as a relatively independent subject until class 4 (9 to 10 years old) with evolutionary theory normally being taught in class 12 (17-18 years)(Avison & Rawson 2014; Steiner 1924/95, p. 36). Critical examples of this arise in relationship to the study of plants, animals and humans and the study of evolution:

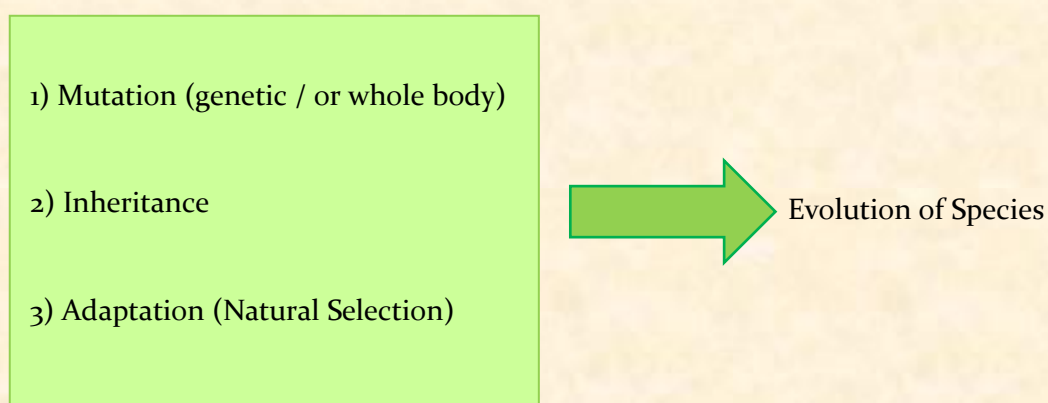
The Department for Education says that they have gained assurances from the four state schools that they don't/won't teach Anthroposophy, and the Academies themselves repeatedly make this claim when challenged. However, these responses misunderstand the place of Anthroposophy in the schools. Like all pedagogies, Anthroposophy is not taught directly to students and parents even in private schools, many of whom will never have heard of it: instead, Anthroposophy informs what the teachers teach... As already stated, the only curriculum book used by the Hereford Academy is *The Educational Tasks and Content of the Steiner Waldorf Curriculum* edited by Martyn Rawson and Tobias Richter... examining the book's lesson plans reveals a wide range of *pseudoscientific* ideas. For example: In Life Sciences class 3, p. 165: "Creation stories give a holistic image of the origins of the earth, plants, animals and human beings". Reservations expressed around the teaching of Darwinian evolution reinforce the concern around creation stories (Life Sciences, class 12, p. 171): 'The Darwinian mechanism delivers clarifying power within a certain range of phenomena, but it is rooted in reductionist thinking and Victorian ethics and young people need to emerge from school with a clear sense of its limits'. (BHA BRIEFING: 15 January 2014) (My emphasis)

Apart from the issue about “creation stories”, for the BHA it would appear that, to even question the historical location of Darwinism, is a form of pseudoscience. But this shows a total ignorance of both the Steiner curriculum as well as the history and nature of evolutionary theory. The first of these is almost trivial. The quote they give is prefaced by the authors with caveat “In class 3”. This is a period in Steiner education when neither biology nor evolution is taught in the sense that it is done so in mainstream. Up until class 3, it is all integrated learning as outlined previously: there are very few distinct subjects at this point – to link this reference to evolution education is a deep misconception. In this phase of Steiner Education many “subjects” are unified in the two hour, three week, long “main lesson”. If one reads more of the original text, it says “Other stories relate how particular people, holy people of saints, cultivated a special relationship with the animal world (e.g. St. Francis)” (Rawson & Richer 2001, p. 165). It is evident from the text that this is not at all about evolution, but about caring for the natural world. To secularists, such as the BHA, this still might seem a problem, the mixing of “biology” with “religion”, but the authors of this text are making suggestions that are not about orthodox religion as such but about the integration of studies of the natural world with moral education. As the text says itself: “All of this... which respects and cares for the Earth has its ethical basis in the moral development of human beings”. (Rawson & Richter 2001, p. 165).

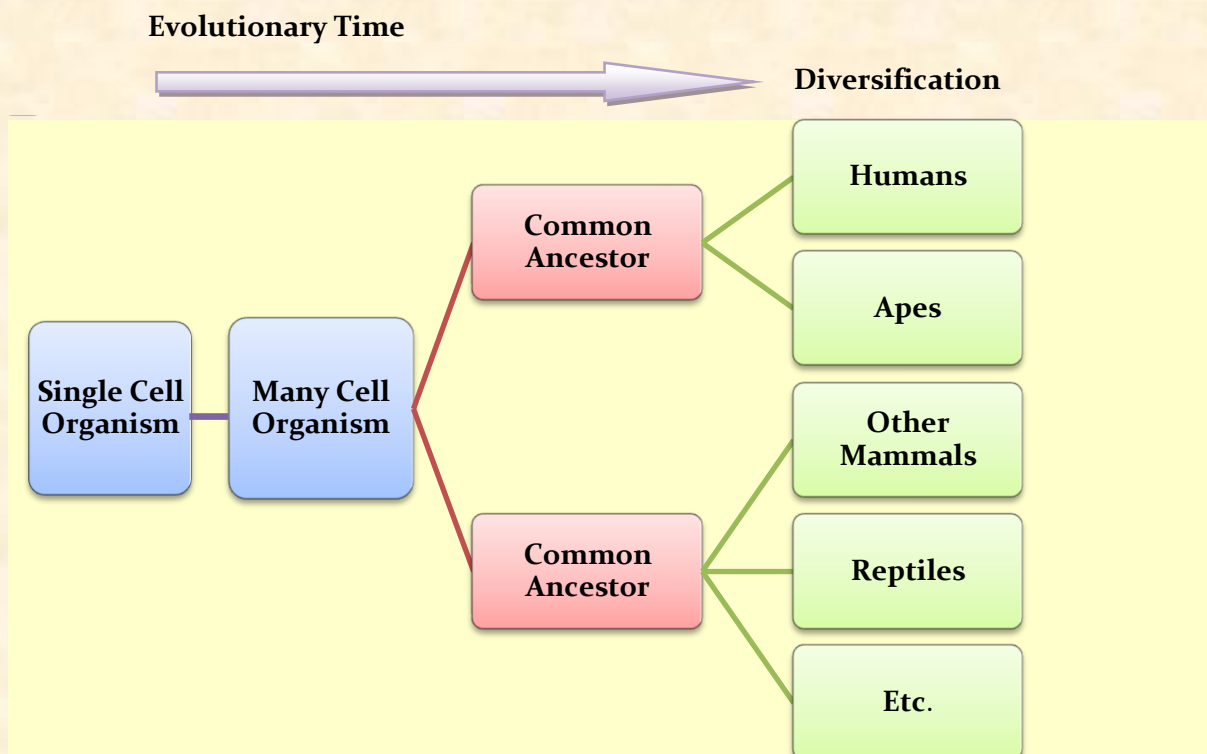
The second part the BHA quote concerns biology in class 12, the highest class in a Steiner school. Here there is a good degree of specialism, but there could possibly be elements of history as well as ethics. Just before the quote given by the BHA the text says: “The question of evolution and a detailed study of Darwinism lead inevitably to the issue of responsibility of the human beings for the Earth and life” (Rawson & Richter 2001, p. 171). There then follows the part about “Victorian Ethics”. This is a historical reference to the debates going on in the late 19th century about the nature of Darwinism. There were two different interpretations at the time about the moral and social impact of Darwinism. The first was the “survival of the fittest” view advocated by the Herbert Spencer (1820 to 1903) and the “mutual aid” view of Peter Kropotkin (1842 to 1921). The Spencerian position “won” in the Victorian period. This was the dominant notion that became called “social Darwinism” and is essentially a form of egoism and self-centred interest at the expense of community. It is this that Rawson and Richter are referring to and should be conceived as an objective discussion about the social impact of the different forms of Darwinism: it has nothing to do with “pseudoscience”: it is about the ethical

implications of the “survivalist” versus the “mutual aid” positions. Incidentally, the “mutual aid” interpretation is now winning ground over the “survival of the fittest” position with the appearance of books such as “*The Origins of Virtue*”(Ridley 1997); “*The Evolution of Cooperation*”(Axelrod 1990); “*The Ethical Primate*”(Midgley 1996) and “*The Age of Empathy*”(de Waal 2009). This is something that research active Waldorf teachers may take into account: this would be a “*contrasting paradigms*” element within the education with respect to the ethical impact of a scientific theory. In an open, lively, evidence based debate amongst 18 years old young adults, there is simply no sense in which this could be indoctrination, rather it is the encouragement for the freedom of thought.

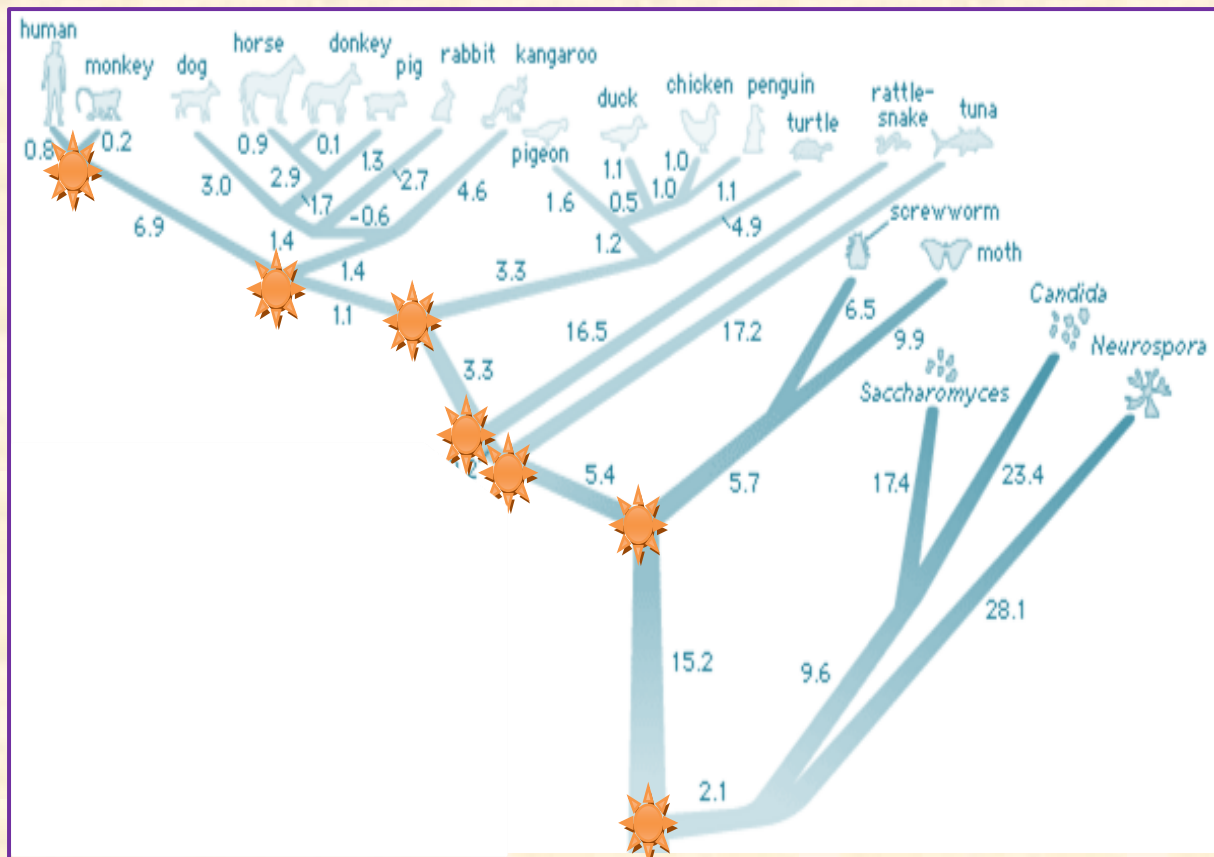
It might be important at this point to discuss in a more general way what Steiner’s own views on evolution were as well as precede this with a short exploration of what evolutionary theory actually is. It is only on this basis that a proper judgement can be made concerning pseudoscience and indoctrination. Today, Darwinian evolution has three basic components: mutation (genetic), inheritance and adaptation. Together they lead to the evolution of new species (Dawkins 1991). The current conception of this process is that there are gradual and small genetic mutations occurring in each generation. This gives rise to changes in whole body characteristics. These mutations are either selected for or against by the natural environment – it is in this sense that an organism can be said to be adapted to the environment (assuming it survives). The mutated and selected characteristics are then inherited by the next generation. Over very long evolutionary time periods, this leads to the emergence of new species (through geographic isolation for example). One can picture this as follows:



This applies to all living species going back in time to the first living organisms. This gives rise to a conceptualisation of the living World as a gradual process of the diversification of species, in many complex forms, from a very simple form. Scientists then unify this notion under the heading of the “*phylogenetic tree*”, sometimes known as the “tree of life”. The phylogenetic tree has a number of different forms and the one below is a very general and abstract picture of the process of evolution:

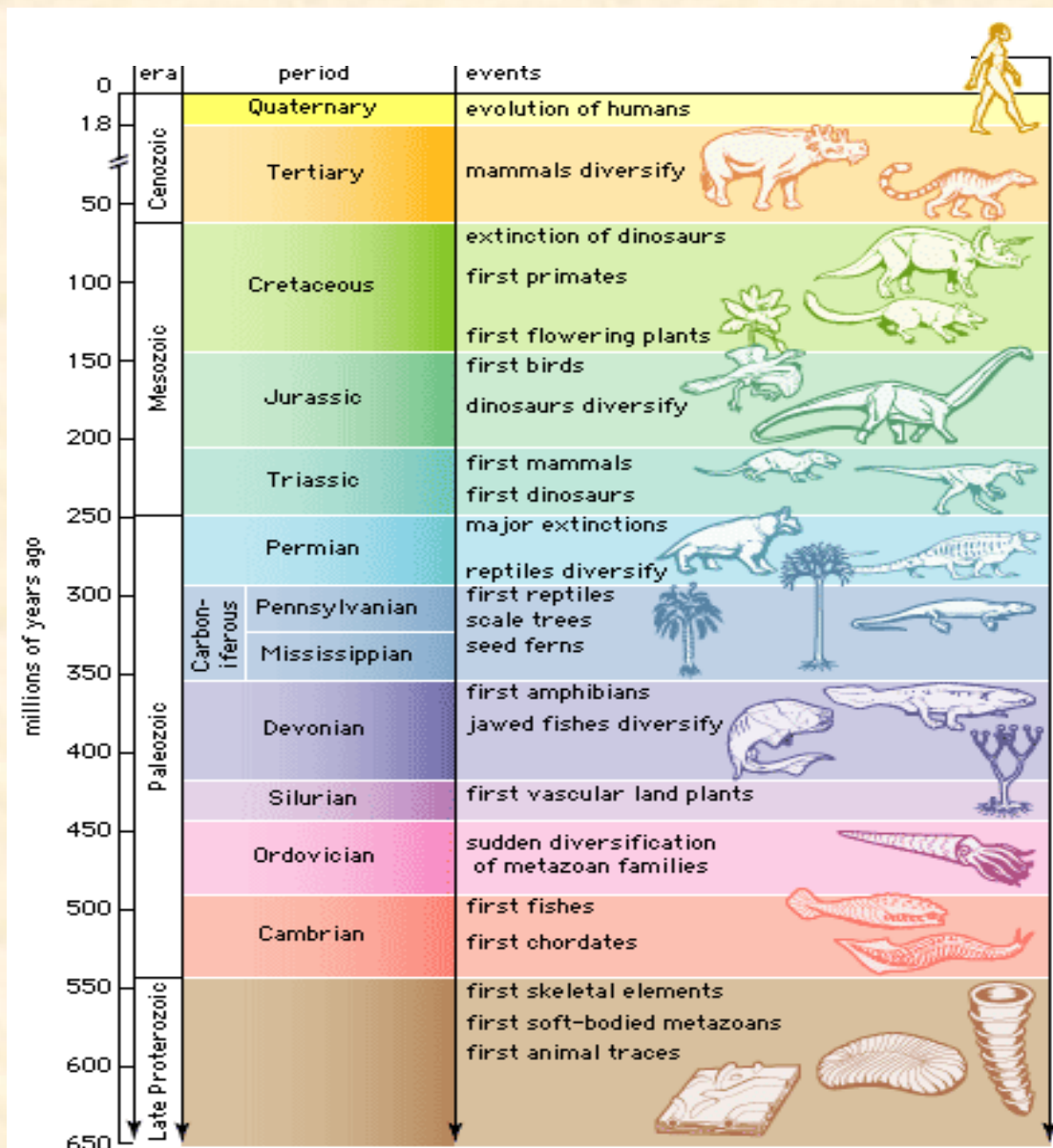


In this image, the notion embedded is that all species, however complex, have their origin in the single celled organism that first emerged in very ancient time periods: it is thought to be the first form of life. A more expansive picture of the phylogenetic tree might be as follows:



As can be seen, there are a number of different nodal points along the diagram (orange stars). Take any species and follow the line downwards and a node will be found where it joins with another line. This is a point at which species are said to have a “*common ancestor*”. Thus in the diagram, starting on the left, the human lineage is observed to join up with that of the monkey. To the right of this, there is a batch of species which include the dog, horse, donkey, pig, rabbit and kangaroo; this joins up with the human / monkey lineage. Carrying on with this idea shows that, in principle, the human life line joins up with that of the screwworm, the moth and, ultimately, the neurospora. In the process, going back in time, the later species do not exist as such and their identity as a species is “lost”. Even according to modern science, humans do indeed have some very strange common ancestors and who look nothing like modern humans.

One particular example often shown in popular media is that of the scale of evolution and how it meshes in with geological periods which is sometimes pictured as:



So the question is: how does this tie in with Steiner's view on evolution? Is his view completely different from modern science, i.e. is it a *competing* paradigm, or is it a *contrasting and complimentary* paradigm? If it is the latter, does then this imply that *if* Steiner Education teaches this would it therefore be anti-indoctrinary?

At first sight, some may consider Steiner as being opposed to evolution as conceived by Darwinism:

And all this idle talk of the scientists about man descending from an animal will be laughed at by people who have been educated in this way. For they will know that man unites within himself the whole animal kingdom, he is a synthesis of all the single members of it. (Steiner 1924/95, p. 44)

But further evidence suggests that this is not so simple:

I saw in Darwinism a mode of thinking which is on the way to that of Goethe, but which remains behind this... Indeed, I so conceived the second volume of this book that a point of departure for a deepening knowledge of the world mystery might be found in a *spiritualized form of Darwinism and Haeckelism viewed in the light of Goethe's world-conception*. (Steiner 1928, chapter XXX)(My emphasis).

In this, Steiner recognised the value of the “Darwinian paradigm” but saw it only as a first step to a comprehensive understanding of evolution based on Goethe. For Steiner, Darwinian evolution is only one aspect and that of the bodily type. Following on from his conviction that the human being was composed of body, soul and spirit, he argued that: “We must rather have a clear knowledge that man is a being who bears within him body, soul, and spirit, with each of these three parts undergoing its *own particular evolution*” (Steiner, R (1924d, Chapter 8)(My emphasis). So we have here not a conflicting paradigm but a complementary one, i.e. a view in which the bodily form of evolution is added to an understanding of the evolution of soul and spirit. But this leaves open the question of whether or not this expanded view impacts on how Darwinism, or evolution generally, is understood:

When we look at this evolutionary sequence of human genealogy, it agrees precisely with the one in Haeckel's... Without further consideration, we can accept Haeckel's genealogy. The only difference is that Haeckel thought that animals arose first and that humans evolved from them. But we see the *human being* already in the *Archetypal or Primal Form*; and the animal world we see as a branching, as a speciation of humanity. In reality, the human being is the First Born of the Earth; this developed itself in a direct line and left other beings behind in various stages. (Steiner 1907, p. 248/9) (My emphasis) (My translation)

There are two basic aspects to this. Firstly, Steiner is in agreement with the evolutionary succession of forms as it was presented by Haeckel in his time. This is not fundamentally different in today's modern science. As we will see shortly that which appeared in evolutionary time, as derived from the geological record, is not something Steiner contended, his views were *convergent* at this point. *The difference lies in how that which came first is conceptualised and imagined.* In relation to this, one problem that has arisen in the understanding of human evolution is the common misconception that humans evolved from apes. This view is often reinforced by popular images in the media. *But no scientist thinks this.* As we have seen above, the question is really one of the “common ancestor” – humans and apes in modern science have a common ancestor, something that was like both but yet different. The same is true of all living creatures – all have a multitude of common ancestors and which end up with the common ancestor of all life. This links onto the second aspect, namely what does Steiner mean by “Archetypal or Primal Form”? It is not clear from the text what is intended, but one way of interpreting this is to see as more like the common ancestor idea. This interpretation is supported by the following:

Relatively late in the Atlantean time, that species branched off which later formed itself into today's apes. Earlier in the Atlantean time certain higher mammals branched off as did certain lower mammals in the oldest of Atlanteans times. *The physical human being at that time was at the evolutionary level of a mammal;* but the mammals remained at this level whilst the human being developed further. *In still earlier times the human being stood at the evolutionary level of a reptile.* The body was completely different from today's reptiles; but the reptile had formed itself in its bodily development and has fallen into decadence. The human being developed its inner members; the reptile, in contrast, remained behind. It is a brother of humanity that has remained behind. Still earlier, the bird species branched off; and *even further back the human being was on the level that is preserved in contemporary fish species.* On the Earth at that time there was nothing present higher than complicated forms of fish. *In more primal times, the human being stood at the level of an invertebrate animal. In the oldest of times, the single cell branched off... that represents a brother of humanity.* When we look at this evolutionary sequence of human genealogy, it agrees precisely with the one in Haeckel's. (Steiner 1907, p. 248/9)(My translation)(My emphasis)

Of course, to some critics the fact that Steiner uses the word “Atlantis” is suggestive of the notion of indoctrination. However, it has to be noted that the idea of this fabled continent was common in his time, even within scientific circles, albeit with a variety of different interpretations, sometimes with ancient human civilisations, sometimes merely to do with the existence of a physical island continent. It has to be noted that the modern scientific views of continental drift and plate tectonics and other aspects of modern geology were still in their seminal stage and open to much speculation, including Atlantis. In fact, plate tectonics only become properly formulated in the late 1960’s. Yes, Steiner did speak of the continent in his anthroposophical lectures and also in terms of the evolution of consciousness, but recall that he argued that Anthroposophy should not be taught to children. Were teachers to do this, it would be in contradiction to his *primary principle of only teaching that which is objective fact and can be supported by scientific evidence*. Today, such a view of Atlantis is not much of a scientific concern and should not be taught as a *scientific* or *historical* fact. If taught at all, it may be justifiable as a part of the *history of thought* in the 19th century.

The point of relevance here, however, is that in Steiner’s view, the ancient “human beings” were not dissimilar to the forms found in the phylogenetic tree. “Humans” were *like* “apes, mammals, reptiles, birds, fish, invertebrates and, finally, the single cell”. The other species he saw as “brothers of humanity”. It would seem then that Steiner’s idea of the “Archetypal-Primal Form” of humanity is very closely related to the idea of the “common ancestor” in modern science and not that of the form of the contemporary human being. In light of this, accusations of indoctrination are severely mistaken as Steiner saw evolution in terms of a common ancestor; it is just that he called it an “*archetypal form*”.

There is a nuance to this in that Steiner’s concept of “archetypal” is a potentiality concept more convergent with more advanced types of biological thinking:

The [evolutionary] ancestor is a tiny creature, a single dot. Although the ancestor's body is a dot, like a bacterium in the primeval slime, **hidden inside it is the potential for branching**. (Dawkins 1991, p. 57) (My emphasis and italics)

the goal of scientific explanation is... to explain what is observed as a specific actualisation of the possible by particular conditions. (Goodwin 1994, p. 80/1)

For Steiner then, the ancient ancestor is an archetypal potential for the coming into being of the many diversified forms over evolutionary time. From this perspective, Steiner's ideas on this matter are convergent with modern biology.

Of course, there is still the question as to what he meant by "Atlantis". It has to be remembered that at that time, and throughout the 19th century, speculations about "lost continents" were common, even in scientific circles, but Steiner was clear that such notions were identifiable, to a sufficient degree, with conceptions of the science of the time: "The Ice Age is the Atlantean catastrophe. The Early, Middle and Late Ice Ages are nothing more than what occurred in Europe while Atlantis sank. That all occurred at the same time, that is, in the seventh or eighth millennium" (Steiner 1919-22, p. 25). This was something that was of particular concern to a teacher in the first Waldorf School:

A teacher: It is difficult to find the connections before the Ice Age. How are we to bring what conventional science says into alignment with what spiritual science says?

Dr. Steiner: You can find points of connection in the cycles. In the Quaternary Period you will find the first and second mammals, and you simply need to add to that which is valid concerning human beings. You can certainly bring that into alignment. You can create a parallel between the Quaternary Period and Atlantis, and easily bring the Tertiary Period into parallel, but not pedantically, with what I have described as the Lemurian Period. That is how you can bring in the Tertiary Period. There, you have the older amphibians and reptiles. The human being was at that time only jelly-like in external form. Humans had an amphibian-like form.

(Steiner 1919-22, p. 26)

When you go on to the primeval forms, to the original mountains, you have the polar period [Polaris]. The Palaeozoic corresponds to the Hyperborean, but you may not take the individual animal forms pedantically. Then you have the Mesozoic, which generally corresponds to Lemuria. And then the first and second levels of mammals, or the Cenozoic, that is, the Atlantean age. (Steiner 1919-22, p. 50)

Steiner wanted the teachers in the Waldorf School to make bridges between natural science and spiritual science. In this way, comparisons could be made between the two different, but potentially complementary paradigms. Of course a teacher may choose not to do this – it would be perfectly within their right as autonomous researchers. For those that do the following picture emerges:

Steiner Terminology	Scientific Terminology	What was evolving	Human Form
Atlantis Early Atlantis	Cenozoic period	Early modern humans, apes; higher mammals, lower mammals	Ape- Mammal-like
Lemuria	Mesozoic period	Reptiles, birds, fish	Reptile-Like Bird-like Fish-like
Hyperborea	Palaeozoic period	Invertebrates	Invertebrates-like
Polaris	Proterozoic period	Single cells	Single Cell-like.

Of course, in keeping with principle of “not teaching Anthroposophy to children”, it would be wise not to teach those aspects which cannot be empirically identified. One may be even advise omitting the anthroposophical terminology. So the question of teaching the different *states of consciousness* in such proposed bygone ages would need to be omitted in the teaching. But, at least in the *physical* respect, Steiner’s ideas on evolution are, to a degree, *sufficiently convergent* with modern science’s views on plate tectonics. The only difference at this point is that of terminology.

How does this connect onto the criteria for indoctrination or for education? As can be seen from chapter 2, genuine education would be defined in terms of evidence and rationality, objective justification and paradigm comparison. With these, Steiner’s proposals are clearly based on the same empirical evidence as advocated by modern science: it is about rationally thinking through the theory associated with geological time periods and Darwinism and

which also involves the comparison between paradigms. In this sense the teaching of “Anthroposophy” overlaps with that of modern science and, to a degree, thereby obtains “*objective justification*”, there is “*sufficient convergent knowledge*”. There is no sense then in which this is a form of indoctrination. Of course, teachers may not wish to include any element of Anthroposophy – it is their autonomous right to do so. But in this case, it is merely the omission of Steiner terminology and those other parts of Anthroposophy that should not be taught to children. The argument that Anthroposophy should not be taught in Waldorf schools is only valid for those ideas which have no sufficient convergence modern science. But, if they both make the same case, then they overlap in convergent knowledge and there is sufficient identity of Anthroposophy and modern science. In the sense of convergent knowledge, the argument that Anthroposophy should not be taught in Waldorf schools fails: at this point Anthroposophy and modern science are the same.

7.3b) Plant Studies

One of the criticisms of Waldorf Education is that it supposedly teaches Anthroposophy covertly. But, as we have seen from the above, Steiner only recommended the inclusion of anthroposophical content when it can be objectively justified through empirical methods. The other side of this is that what Anthroposophy means is very broad and can, as will be shown in this instance, be a relatively simple proposition that *plants should be understood in the context of their whole environment*. Modern ecologists might understand this as being convergent with their own methods and explanations.

Like all his recommendations for nature studies and science, Steiner always proposed teaching directly from the student experience-observation. By designating the teaching process in this way, it is inevitable that this would be a form of holism, at least on a perceptual level. Rather than beginning with the smallest part of a living organism, such as genes or cells, the starting point for the teaching of plants is the place of the *perceived* whole organism in its natural environment:

For what is actually a tree? A tree is a colony of many plants. And it does not matter whether you are considering a hill that has less life in itself but that has many plants growing on it, or a tree trunk where the living earth itself has as it

were withdrawn into the tree. Under no circumstances can you understand any plant properly if you examine it by itself. (Steiner 1924/95, p. 38)

For Steiner, it is always the totality that gives reality, not the isolated parts. The latter should be seen as integral to the wholeness rather than that which makes up the wholeness.

Therefore you must not teach geography and geology by themselves; and then botany separately. That is absurd. Geography must be taught together with a *description* of the country and *observation* of the plants, for the earth is an organism and the plants are like the hair of this organism. Children must be able to see that the earth and the plants belong together, and that each portion of soil bears those plants that belong to it. (Steiner, p. 39)(My emphasis)

People today have less and less conception of reality, the so-called “practical” people least of all, for they are really all *theoretical* as I showed you in our first lecture, and because they have no longer any idea of reality they look at everything in a disintegrated, *isolated* way. (Steiner 1924, p. 40)(My emphasis)

If we recall from chapter 3, a part of the definition of indoctrination concerns the absence of evidence, or personal experience. In the first of the above quotes, though, Steiner makes direct reference to “observation” and “description” – clear indicators of his intention that, at least in the area of plant studies, of an anti-indoctrination principle. What Steiner wanted here was for the children to have their own personal experience of the plant world and upon that gradually build their own rational judgment. The second quote supports and extends this notion to argue against the “theoretical”. What he means by this in this context is the counter side to indoctrination. If it is true, as shown in chapter 2, that indoctrination operates with regards to the “intentional implantation of unshakeable beliefs regardless of appeal to evidence” (chapter 2), then the crux of the matter is that *pure* “theory” or dogma / ideology is crucial to its conceptualisation. By this conception, *pure* theory is without “appeal to evidence”. Steiner is not arguing here against theory that is supported by evidence, but that kind of theory that does not have any, or very little. In this sense, Steiner is suggesting that only when theory is connected with evidence is it truly practical. One can see in this also an aspect of Steiner’s anti-indoctrination principles.

The other aspect to this is that of the “isolated fact”. This is an outcome of a reductionist methodology which gives ontological primacy to the smallest part of an entity. But for Steiner, to view the plant World in this way is an illusion: plants exist within the total, holistic, environment and can only be properly understood in this way. Thus that sort of reductionism that leads to the ontological primacy of parts is, arguably, a form of indoctrination. Steiner’s form of holism, on the other hand, leads to understanding reality in its wholeness and is based on direct personal experience operates in opposition to indoctrination. This view is in many respects convergent with modern ecology in so far as the latter strives to understand the whole environment in which organisms live.

7.3) *Animal Studies*

One possible area of controversy concerns Steiner’s recommendations for the study of animals. Many of the suggestions derive from Anthroposophy and so are susceptible to the indoctrination accusation. But, as we have seen, this would be a superficial argument: the real test is not whether an idea is derived from Anthroposophy, but: does it have *objective justification* (see chapter 2)? The other side of this is that, as with an understanding of any author, there needs to be a lens through which to read them. Steiner makes his own suggestion to the reader, that whatever is proposed from the perspective of Anthroposophy, that it is read through the lens of *objective justification*. This means that the interpreter needs to keep this in mind particularly in relation to his educational ideas. From a certain perspective, this also acts as a filter for *what* and *how* something is taught.

There are two basic aspects to Steiner’s suggestion: that of animal form; and animal emotion. Steiner proposes that the teacher should find a relation of these to their corresponding elements in the human being. In that sense, an understanding of the previous discussion on evolution is central to the following. In particular, this means the identification of Steiner’s “archetypal form” concept with the “common ancestor” idea shows the anti-indoctrinary of his ideas.

(7.3a) *Animal Forms*

In relation to animal forms he proposes:

The whole *animal kingdom* is a *giant human being*, not brought together in a synthesis but *analyzed* out into single examples. It is as though you were made of

elastic that 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... 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. (Steiner 1924/95, p. 45)(My emphasis)

When this has been made clear to the child so that he understands that *animal world as the man who has developed his organic systems one-sidedly* - the one system living on in this animal species; the other as that animal species - then we ascend to man again. (Steiner 1923a, p. 149)(My emphasis)

If we recall the discussion on evolution, Steiner made the argument that it was the *Archetypal or Primal Form* of the human being that was present first and that all the species descended from it. This Primal Form appears to be that from which, in Steiner's view, the animals, as we understand them today, have "separated out", been analysed into the specialised forms. He is not arguing that the Primal Form of humanity is the same as the human being today. As we have seen in his views of evolution, "humanity" has had forms of a totally different character than the current human phenotype. It was, arguably, a form that can only be imagined through picturing evolution in reverse order, as show in his diagrams (Steiner 1924, p.44/5). Steiner's Primal Form concept is identifiable with the "common ancestor" principle. It is from this that all species today have descended, taking on the specialised characteristics we see today - it is this specialisation that Steiner calls "one-sided". This "analysing" process that Steiner refers to can then be seen simply as the process of descent from the common ancestor of all species. In this interpretation, Steiner's views on animal forms can be seen as a compatible paradigm to modern science, thereby attaining a degree of objective justification and being anti-indoctrination.

7.3b) Animal Emotion

Animal emotion is of particular interest as Steiner's view's comes into conflict with the epistemological foundations of behaviourism. For animal emotions he suggests:

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 [soul] quality. (Steiner 1924/95 p. 42) (My emphasis)

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... 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 1924/95, pp. 43/4)

In Steiner's works on life science education there are many challenging ideas. Steiner speaks about distinctive animal emotions which puts him in conflict with the mainstream education of animal science studies. Wynne (2007) challenges this position in an article typical of behaviourism: *that which cannot be observed though the senses are not part of science and therefore should not be a part of science education*. In the article by de Waal, however, there is a relatively new trend to re-open the field of animal psychology as a genuine scientific activity. In his book, *The "Age of Empathy"* de Waal (2009) makes an argument for the re-introduction of animal emotion into science. Arguably, there are at least two aspects to this. The first is a different epistemological stance; this is where it is justifiable to hypothesise the existence of animal emotion in a similar fashion to how physics theorises the existence of unobservable particles and forces. The second aspect is based on the introspective observation of human emotion and a justified element of anthropomorphism in the theorising of the existence of animal emotion. On the basis of this, it is arguable that science should not be identified with the narrow confines of behaviourism (epistemologically derived from logical positivism). If we are to understand what science is, and thereby indoctrination, we should not be restricted to out-dated views long abandoned, or never accepted, by large areas of science.

But there is also more to the question of the scientific status of human and animal emotion. Darwin himself also thought that a scientific study of them could also be made. This was acknowledged by Steiner:

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 *suprasensory* realm.

(Steiner 1921/22, pp. 34/5)(My emphasis)

The reference to the “suprasensory” here might be of some concern to critics, but the question is: what does he mean? The emotions of humans and animals are not open to direct observation – but they are, or can be, expressed outwardly. This is one of the things that Steiner is indicating concerning the “training in natural scientific observation” leading into the suprasensory – emotions are beyond the senses but are expressed in the sense world. Steiner was praising of Darwin’s scientific method arguing that even emotions can be approached scientifically. Whilst this is certainly a challenge to the behaviourist interpretation of science, it is still compatible with Darwin’s “psychological method” as well as the approach of theoretical physics, using the principle of “*inference to the best explanation*” (Curd & Cover 1992). In that sense, Steiner’s view on the education about animal emotion is no form of indoctrination.

The second part of the above concerns the species specific nature of emotion. Whilst the discussion between Wynn and de Waal is about the kinds of emotions animals have in common (not species specific), there is no specific reason why there could not be a scientific approach to this. It may be that whilst common emotions between animals are important, what their specific emotions are may be more so from a scientific perspective. After all the

desires of herbivores are quite different from those of carnivores and even within these there is a great deal of specialisation. An understanding of the specific desire of animals might help with a scientific approach to how they lead their lives. In this case, the education about the emotions of animals is a paradigm transcending situation in which an outmoded behaviourism is superseded by an animal psychology. In that way, a process of indoctrination is avoided through the contrasting of paradigms.

This leads on to the third aspect of Steiner's suggestions, namely that the human being has, or could have, a "synthesis of all the different soul qualities that the animal possesses". Whilst this may seem strange on a superficial level, the precise terms he uses are informative as to what he means: "cruel beasts of prey, gentle lambs, and animals of courage". His assertion is that human beings could have these emotions "harmonized" in the "right proportions" and in the "right relationship". He is not, of course, suggesting that humans should be cruel, but that when the emotions of animals are understood the proper harmonisation of the "gentleness" and "courage", etc, could be integrated into the moral capacities of people. This is none other than the bringing together of natural science and natural morality and has a distinct similarity to Aristotle's understanding of balance in human virtue as argued in his *Nicomachean Ethics* (Aristotle 1976, p. 104). Here Aristotle argues that true virtue is the balance between "the too much and the too little". For example, courage is the mean, cowardice is the deficiency and rashness is the excess. For Steiner, these are observable in nature and are part and parcel of an extended, and un-restricted, type of science. Consequently, if this extended science is accepted then this is also not indoctrination.

7.4) Religious Education

One of the criticisms of Waldorf Education is that it is accused of being a form of religious indoctrination due to its connection to Anthroposophy. According to the critics, not only is Anthroposophy taught as a religion but also the in way it is integrated into every lesson. Steiner was aware of some of the difficulties associated with religion education:

These free religion lessons have certainly caused us a great deal of concern. Our relationship to the school is very unusual regarding these lessons. We consider all the other subjects as necessary and intrinsic to our education from the point of view of the principles and methods resulting from anthroposophical research. But, regarding the free religion lessons, we feel

that we are on the same footing as the visiting Catholic or Protestant teachers. In this sense, Waldorf teachers who give religion lessons are also “outsiders.” We do not want to have an ideological or confessional school, not even in an anthroposophical sense. Nevertheless, anthroposophical methods have proven to be very fertile ground for just these free religion lessons, in which we do not teach Anthroposophy, but in which we build up and form according to the methods already characterized. (Steiner 1923/96)

Steiner intended quite the opposite to religious indoctrination. Rather than recommending a religious education from the perspective of Anthroposophy for all, each child was to receive the form of religious education in accordance with its family. This was to be done by inviting “pastors” or religious educators to the school to give lessons to groups of children from specific faiths or denominations. There was even a provision for children of families of no particular faith, or possibly even atheists:

Dr. Steiner: My advice would be for the child to take instruction in the *family* religion. We can leave those children who are not taking any religious instruction alone, but we can certainly inquire as to why they should not have any. We should attempt to determine that in each case. In doing so, we may be able to bring one or another to take instruction in the family religion or possibly to come to the anthroposophic instruction. We should certainly do something there, since we do not want to just allow children to grow up without any religious instruction at all. Steiner, R (1919-22): Faculty Meetings with Rudolf Steiner, Anthroposophic Press, p. 17. (My emphasis)

Within the original Waldorf School, there were also so-called “anthroposophical families” which had the wish to introduce their children to religion from an anthroposophical perspective this was sometimes referred to as the “*Lesson plan for the independent anthroposophical religious instruction for children*”.

In the contemporary World, with the growth of Waldorf Schools globally, it is important to take these principles into consideration: Steiner proposed that religion education is into that of the *family concerned*. Today, this would mean that religion education should respect the family, culture and society wherever schooling occurs in the World or even within a country. This would mean all forms of Christianity, Judaism, Islam, Hinduism, Buddhism and Sikhism and so on, even atheism and anthroposophical, so long they are *of the family concerned*. I

suspect that this is one of the reasons why Steiner / Waldorf Education has become globally spread: it respects the religion of the family and the land of origin.

Today, in a globalised World where religions of every kind can be found in most countries, there may be a case for having some classes related to the world religions for all children. In this, every child may be enabled to have a cultural feeling and understanding of other religions in the world and of their friends. A small step here is made towards mutual social tolerance. Far from being a form of religious indoctrination, Waldorf education strives for religious pluralism.

Some Concluding Thoughts

In public representations of Steiner/Waldorf Education it seems to me important that the *contents* of Anthroposophy as well as its *method* are explained. Assuming we can demonstrate the convergence of our approach with non-indoctrination (through definitions like the above) this is not something we should be afraid of. Of course, each and every aspect of Waldorf Education needs researching. In light of this, I would just like to repeat option 4 from above which seems to me to represent not just what Waldorf does but also what it should increasingly do; it is also more in keeping with the ECSWE statement:

That the schools and the individual teachers see the method and the content of Anthroposophy as *fields of research* in which its educational relevance is tested against truthfulness, aesthetic sensitivity and moral value: ***sufficient convergent knowledge***.

In other words, it is not the fact that Anthroposophy is brought to the children, in an appropriate form, that matters; it is whether or not the teacher has researched the relevant content and tested it for truthfulness, measured it against experiences of beauty and evaluated it against moral value. In other words, what is really important for Waldorf Education is the practice of ***sufficient convergent knowledge***. If this is arranged and connected with: the inner freedom of the young person (i.e. contra coercion); and openminded teaching (i.e. contra “unshakeable beliefs”); and appealing to evidence/experience; then this is not indoctrination by the above definition.

Appendix:

From Websites concerning the connection between Waldorf Education and Anthroposophy

ECSWE:

The term “Anthroposophy” was coined by Rudolf Steiner in the early part of the 20th century, to describe his work and research into the essential nature of life, humanity and the world. This research work sought to embrace the tangible, materially-verifiable components of life and the more intangible, spiritual dimensions of existence and reality. Anthroposophy is a developing body of knowledge, practice and research. The work includes research into the volitional, emotional and cognitive faculties. These faculties often elude current standards of evidence, proof and verification, yet constitute the essential instruments through which the human being and in particular, the growing child is enabled and empowered to construct the experiences, learning processes and competences which will serve him/her throughout life.

Steiner Waldorf educators study and research aspects of Anthroposophy in order to inform and develop their work as teachers within the schools and places of learning. The philosophical and methodological approaches that underlie Anthroposophy are regarded as tools for personal and professional development; they are not taught within the school, either as a subject or as a belief.

SWSF:

Steiner schools do not teach Anthroposophy, indeed some would argue that it cannot be taught in any conventional sense. Our schools endeavour to work ‘out of Anthroposophy’. The implications of this can best be understood by reading the Principles and Aspirations of the European Council for Steiner Waldorf Education.

Steiner Academy Bristol:

Rudolf Steiner was a philosopher and a mystic. He saw his work as forming a coherent philosophy, which he called Anthroposophy. Steiner saw all aspects of life as being rooted in mystical truths, and the practical ideas that he put forward were based on Anthroposophy, his own spiritual philosophy.

We recognise the importance that spirituality and religion have for many people; however, we believe that they are matters of private belief. We will therefore neither promote nor denigrate any particular religious or spiritual beliefs. Our school will uphold the right of all individuals to hold their own beliefs and values, remaining neutral and inclusive on all matters of religion and spirituality.

Because of this, we will neither teach nor promote Anthroposophy. Individual staff and parents are free to come to their own interpretations of the philosophy that Steiner saw as the basis for his ideas, accepting or rejecting the spiritual elements according to their own private beliefs. We are committed to the practice of Steiner education, but this can be approached from many different viewpoints; this diversity can only enhance the vitality of our school.

Frome:

This notion of child development is central to Steiner education and draws on Dr Steiner's work on child development. The school, however, will neither promote nor teach the wider philosophy which is known as "Anthroposophy."

Steiner Academy Exeter:

Steiner schools *do not* teach Anthroposophy, indeed some would argue that it cannot be taught in any conventional sense. Our schools endeavor to work 'out of Anthroposophy'.

Ringwood

The social practices of the school (including the financial principles) are based on the 'Three-Fold Social Order' as developed by Rudolf Steiner, which are integrated into the educational aims. The Three-Fold Social Order recognises and distinguishes between the cultural, rights and economic realms of society and describes the relationships between them. This also informs the management practices in the school. In addition to the educational indications referred to above, all teaching in the school is informed by Anthroposophy, its concept of the universe and world view and of the human being. This is the basis of the 'art of education' and of all endeavour in the school.

Kings Langley

Steiner had described his ideal of a comprehensive education that encompassed everyone, regardless of social background. The basis of this 'art of education' was - and still is - a

recognition of the physical, emotional, intellectual and spiritual needs of the developing human being. Steiner's philosophy, which he named Anthroposophy, can be applied to all walks of life and provides guiding principles for the teachers' work. It is important to note, however, that Anthroposophy itself is not taught to the children

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