Chapter 7
Conclusion: Does It Work? Empirical Studies of Waldorf Education

Abstract There are some difficulties in doing empirical research on Waldorf education: the underlying concepts and ideas are complex and hard to get into; and some of the expected results such as 'individuality' and 'freedom' are hard to measure in a reliable way. Some studies comparing Waldorf and mainstream students and graduates have nevertheless been done. Short summaries of such studies in Sweden, Germany, the USA and Australia are presented. One overriding result is that Waldorf students seem more interested to learn and more socially engaged than mainstream students, but somewhat less knowledgeable when it comes to facts and scientific explanations. This raises the question whether we want to foster knowledgeable but uninterested, or interested but less knowledgeable students. The empirical evidence also shows that only a few percent of former Waldorf students become engaged in anthroposophy.

Keywords Waldorf alumni studies · Waldorf science education · Waldorf civic education

7.1 Difficulties in Evaluating the Effects of Waldorf Schools

Approaches to and examples of research on Waldorf education have been extensively displayed and discussed in Paschen (2010). These studies range from conceptual foundations, over empirical and methodological, to pedagogical content investigations. However, in this chapter, I will limit myself to empirical studies of an evaluative nature.

Steiner envisaged high goals for Waldorf education: not only the transmission of necessary knowledge and abilities, but also individualisation and personal development, a certain degree of freedom, health and social reform. These goals are certainly not alien to many present national educational systems, but Steiner had a special take on them and could spell them out in detail. This is hard for state-governed educational policies to do, because there is a general lack of

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consensus on such issues. If Waldorf education should be evaluated empirically on its own grounds, that is, based on what it itself tries to achieve, two difficulties arise. The first is to develop a wide and deep enough understanding of Steiner's educational thinking. The second is to find research methods that could measure the educational goals in valid and reliable ways.[1] As far as I know, there are no studies that have managed to solve these problems completely. Most of the research reported below is of a comparative nature, based on quantitative surveys of Waldorf and mainstream students. Comparisons are made of knowledge, abilities, attitudes and self-reported health status. Such data are at best merely indirectly related to the imponderable qualities of freedom, individualisation and personal development. This must be born in mind when reading the Sect. 7.2.

Another problem is that Steiner primarily gave conceptual frameworks and basic principles from which contents and teaching methods should be creatively derived and continuously renewed. To the extent that this does take place, Waldorf education becomes somewhat difficult to evaluate because we will not know if the observed results depend upon Steiner's ideas and principles, or on teachers' abilities to understand them and apply them in practice. If, for example, the evaluations prove disappointing, this may be due to teachers' inability to put Steiner's ideas into practice, rather than the ideas themselves.

7.2 Surveys of Waldorf Students and Graduates, and Comparisons with Students and Graduates from Mainstream Schools

In the USA, Baldwin et al. (2005) studied Waldorf students in North America and Canada, who completed their twelve-year schooling between 1991 and 2004. The survey included 27 schools and 2776 respondents. The focus of the study was what kind of further education was sought, and what those who did not enrol in higher education did instead. Results showed that up to 2002, over 80% of the respondents had graduated in either arts and humanities (40%), social and behavioural sciences (30%), life sciences (10%) or physical sciences and mathematics (3%). These were much higher rates than in the general population, in which only about 35% of the same age groups majored in any of these fields during the same period. At the same time, many of the Waldorf students, 19–25% of each graduating class, did not immediately go on to further education, but chose to travel or to work for some years.

In a later study by Mitchell and Gerwin (2007), Waldorf graduates from 1943 to 2004 were surveyed regarding education, career and life choices, attitudes, cultural interests and social engagements, social relations, mental and physical health, and attitudes to Waldorf education. Five hundred and fifty people responded to the

[1]See Dahlin (2010a), for a further discussion of this issue.

survey. The results paint a positive picture of Waldorf education, as the responding group was generally characterised by high degrees of passion for lifelong learning, creativity and thinking outside the box, engagement in environmental issues, and of social and emotional intelligence. They also enjoyed high levels of health, in accordance with the proposed salutogenic character of Waldorf educational methods hinted at above (here the results are corroborated with a German study reported in Barz and Randoll 2007).

As a counterbalance to the overall positive results, Mitchell and Gerwin (ibid.) include some negative judgments regarding the Waldorf graduates' abilities in higher education. These judgements came from interviews with college and university teachers. Although the judgements made by these teachers were generally positive, some of them found that former Waldorf students were lacking in the ability to abstract, too quick to make assumptions and form judgements, and to have writing skills below average (ibid., p. 83f).

The weakness of these studies from the USA is that there are no attempts to measure the influence of students' socio-economic status (SES) and other aspects of their family background, to ascertain to what extent the findings are specifically related to the Waldorf methods of education. This tends to be lacking in most studies of this kind. Although it is impossible to find ways to establish causal links between pedagogy and adult life attitudes with absolute certainty, there are ways to measure the statistical correlations. The authors are aware of this methodological problem and point to the need for future, more rigid studies.

A comprehensive evaluation of Waldorf schools was carried out in Sweden during 2002–2005 by Dahlin et al. (2006) (for an abridged English version, see Dahlin 2007). The project encompassed many issues, some of which overlap with those of Mitchell, Baldwin and Gerwin above. One purpose was to see how large a proportion of Waldorf graduates went on to higher education, what type of education they chose, how they felt about their studies and how they succeeded in them. A sample of 870 students, from eleven Waldorf schools, who graduated between 1995 and 2001, was chosen. The respondent rate was rather high, 68%. Deep interviews were also done with a small number of students to obtain a more substantial context for the survey answers. It was found that many Waldorf graduates waited some years before enrolling in higher studies, but that most them *sooner or later* entered higher education. An attempt was made to correlate the enrolment in higher education with the parents' educational level. In some year groups, data showed a tendency to higher frequency of enrolment of students with parents of low educational levels, as compared with mainstream school students. However, this was not the case in all age groups.

Swedish Waldorf graduates were found in all sorts of university courses and vocational programs. They studied to become doctors, engineers, economists, lawyers, teachers or artists. An extremely small proportion chose anthroposophical vocational trainings, such as that for Waldorf teacher, curative education pedagogue, or (therapeutic) eurythmist.

The Swedish Waldorf graduates seemed to have a different study approach compared with other students in higher education.[2] They were less instrumental and more deeply involved in their studies. Their study motivation was more often based on a personal interest than on improved job opportunities. They appeared also to be less worried about exams and did not use mechanically reproductive learning methods such as rote learning to the same extent. Overall, former Waldorf students were happy in the university environment and found their studies stimulating and interesting. For some reason, science students found their studies somewhat more interesting and were happier than students of arts and social science subjects. Only a very small percentage (6%) thought that their Waldorf school background was, or had been, disadvantageous to them. This was mainly because of a perceived lack of certain subject knowledge, or not being used to handle large amounts of course literature. At the same time, none of these students thought they had difficulty in meeting the demands of their studies.

Regarding comparisons between Swedish Waldorf and mainstream students *before* graduation, several aspects were investigated. In this area, the samples from the two student populations vary in size, depending on what questions were investigated. It seems unnecessary to go into all the details of this; the interested reader can find them in the reports referred to above. Among other things, it was found that Waldorf students more often felt that their teachers laid stress on everybody's equal human dignity, as well as on gender equity, environmental care and the repudiation of bullying. They also, to a greater extent, felt that their teachers attached importance to cooperation, that they thought that those who have greater difficulties should get more help and that they quickly intervened if a student was bullied. They felt to a lesser extent than mainstream students that they themselves were bullied or unfairly treated.

In the field of more specific knowledge and learning, the evaluation focused on comparing the results of Waldorf and mainstream students on the national tests in Swedish, English and Mathematics, in grade 9.[3] To get a broader perspective on these results, the study also included students' general opinion of school, and their opinions of the teaching of the three subjects. As for results on the national tests, no obvious and general conclusion could be drawn from the pattern of findings that emerged. However, on the other questions, some differences were noted. Waldorf students liked the physical environment of their school better, and they were happier with their teachers and with their schoolwork. Furthermore:

- Waldorf students had a more positive picture of their schoolwork; they thought that it was meaningful for their future and that it corresponded to what they could manage;

[2]Here, a Swedish version of Bigg's Study Process Questionnaire was used; see Watkins and Dahlin (1997).

[3]It also focused on knowledge and competencies in social studies; see below, Sect. 7.4.

- Waldorf students to a lesser extent only worked with their school subjects in order to pass the tests (this is analogous to their study approach in higher education; cf. above);
- the working atmosphere in the lessons was generally perceived as quieter and more pleasant in the Waldorf schools;
- Waldorf students had a more positive attitude to Mathematics and found Swedish a less difficult subject.[4]

From Sweden we go to Germany, which is probably the country where most research on Waldorf schools has been carried out over the years. Helsper et al. (2007) give an account of some of these studies. They note that from 1945 to the 1970s, the percentage of anthroposophists among former Waldorf students decreased from 17 to 7%, while indifferent or critical attitudes to anthroposophy increased from 53 to 61%. In the 1970s, Waldorf students more often came from the upper middle class and did their matriculation examination four times more frequently than the youth population in general. A later study from the beginning of the 2000s confirmed that most Waldorf students came from the well-educated classes (*Bildungsbürgertum*). These students could therefore probably find much support from their parents in their studies. Although Steiner intended the school to be for all children irrespective of social background, the lack of state funding for Waldorf schools naturally limits the clientele to families with high enough incomes [in 2006, the average tuition cost in Germany was 138€ per student and month (Randoll 2010)]. There were also few students with a migratory background.

Other findings reported are the following:

- Only about 3% of the responding Waldorf graduates were unemployed, whereas the public statistics for the corresponding age group was 12%;
- Waldorf graduates said that leisure time, prestige and career possibilities meant less for their job satisfaction than the work itself and its development potentials;
- more than 50% of the respondents complained about the quality of Waldorf science education, and 38% took extra-curricular courses in Science;
- despite some criticisms, 63% looked upon the Waldorf school as giving the best form of education;
- more than 80% felt seen and confirmed by their teachers;
- around 16% experienced a pressure to adhere to anthroposophical beliefs, but over 60% regarded anthroposophy as having no or almost no place in the teachings they received.

The authors conclude that former Waldorf students displayed a high degree of identification with their school, which they explain by the social homogeneity of the culture of the school and that of the parents. They also note that Waldorf teachers tended to have high demands on themselves, bordering on 'pedagogical perfectionism'. Finally, despite the ideal of a collegial and democratic school

[4]Regarding Swedish, mainstream students with Swedish as a second language were excluded from the comparisons.

organisation, they observed an informal hierarchy, with class teachers at the top and lower grade subject teachers at the bottom.

Barz and Randoll (2007) report some critical views among their sample of Waldorf graduates, which consisted of three age cohorts and altogether 1124 respondents. The age cohorts were 62–66, 50–59 and 30–37 (data collected in 2005/06). The criticisms were the following:

- too little of performance challenges and insufficient performance feedback;
- deficient foreign language teaching;
- too little of theoretical and factual knowledge transmission;
- hardly any instruction on strategies for study and learning;
- few present-time political and historical world events were addressed;
- sports, politics, social and natural science were not sufficiently dealt with.

A more recent German survey was carried out by Barz et al. (2012). The study was based on around 800 Waldorf students from ten German Waldorf schools. The results were compared with similar studies of state school students, based on samples mostly larger than 2000. Results showed that Waldorf students were significantly more enthusiastic about learning, had more fun and were less bored in school, more often felt individually recognised by the teachers and learnt more about their individual academic possibilities. Waldorf students more often experienced good relations with their teachers, and their school environment as more pleasant and supportive. They also had significantly less physical ailments such as headaches, stomach aches or disrupted sleep. However, there was no statistically significant difference between the state and the Waldorf school students' achievement on state examinations. Since this study focuses on students' experience while still in school, it gives a more reliable basis than the studies of former Waldorf students, for concluding that Waldorf schools do at least provide a curriculum (in the wide sense of the term; see Chap. 6) that is, generally speaking, more satisfactory from the students' point of view.

In Australia, a more specifically focused study was carried out by Jennifer Gidley in the mid-1990s (Gidley 1998). It investigated the views and visions of the future among upper secondary students in the three largest Waldorf schools in Australia. The research was a replication of an earlier study based on a large cross section of mainstream and other private school students. In some areas, the findings contrasted markedly with the research on mainstream students (cf. Gidley and Hampson 2005). Thus, Waldorf students could develop richer and more detailed images of their 'preferred futures' than mainstream students. They tended to focus on social rather than technological ways of solving problems. About 75% envisaged positive changes in the environment and in human development, and over 60% could imagine positive changes in the economic area. Regarding human development, they had clear ideas about what needed to be changed, in order to fulfil their visions, such as more activism, care for the future, better education and a change of basic values. Although they identified many of the same concerns as mainstream students, such as global-scale environmental destruction, social injustices and war,

most of the Waldorf students seemed undaunted in terms of their own will to do something to contribute to their 'preferred future'. Finally, in contrast to mainstream schools, there were no gender differences in the Waldorf students' 'preferred futures' or in the richness of their imaginations. These results could be interpreted as demonstrating the kind of living and imaginative thinking that Steiner wished to develop in young people. Admittedly, there is no 100% proof that the differences described are caused by different educational methods and not by other contextual factors. But it is highly unlikely that the differences in pedagogy would have no influence at all on these findings.

7.3 Studies of Waldorf Science Education

Jelinek and Sun (2003) report a broad study of science education in US Waldorf schools, including both teachers and students. Comparative data from mainstream students were also gathered. Two standardised tests for assessing science teaching were used: the Cornell Class-Reasoning Test, measuring verbal and logical abilities; and one item from the Third International Math and Science Study test (TIMSS). The Constructivist Learning Model (Yager 1991) was used to categorise video-filmed observations of classroom events. In the quantitative comparisons, the results of Waldorf students on the TIMSS item were on level with both US and international standards. The results of the qualitative analyses were more ambiguous. One thing that stood forth, however, was that Waldorf students had a more advanced *understanding* of scientific facts and could *communicate* their understanding in more elaborate ways, and this already at an earlier age. The conclusion was that Waldorf students seemed to possess 'more sophisticated forms of non-verbal logical reasoning at an earlier age' (Jelinek and Sun 2003; p. 59). More generally, the authors conclude that Waldorf science teaching provided the students with challenging tasks and encouraged them to develop individual, creative and critical ways of thinking, in accord with constructivist modes of teaching. On the other hand, they found that some 'pseudo-scientific' content from anthroposophy was part of the content of the Waldorf science curriculum. This consisted of Steiner's ideas on human evolution, which includes references to the 'mythical' continent of Atlantis. For some people, this would be enough to disqualify Waldorf science teaching altogether. However, it seems to be an oddity related to the US context. As has been noted above (Chap. 5), Steiner was clear about not teaching any anthroposophical content in school. He recommended, however, that in the beginning of the Rubicon period (ages 9–12), teaching should emphasise the correlations between the human being and nature (see above, Chap. 5), especially the relation to various types of animals. In anthroposophy, these correlations form the basis of a 'theory' (rather an imaginative vision) of human evolution, related to the general development of life forms on Earth. Naturally, this 'theory' should not be taught in schools as if it was on a par with present-day science. However, the correlations themselves are based on factual observations, and *as such* they can be

the content of teaching. Since the Waldorf curriculum does not even begin to introduce scientific concepts and cause-effect theories before grade 5, the teachings about nature before this age are not based on Science, but on a more experiential approach, including imagination and feeling. It is on the basis of this 'lifeworld experience' that scientific concepts and explanations emerge and develop (cf. Østergaard et al. 2008).[5] As for the notion of 'sunken continents' like Atlantis, a similar stance must be taken. Surely, it cannot be wrong to introduce this as a hypothesis or a possibility that can motivate further investigations—there are after all people who are doing this (see for instance Sweeney 2010). But it must also be made clear that no unambiguous scientific evidence (in the mainstream sense) for the existence of Atlantis has so far been found.

Another, more recent comparative study of science education was done in Austria based on data from PISA 2006 (Wallner-Paschon 2009). Participating students were born 1990 and thus 15–16 years old. The number of Waldorf students were 153, constituting 92% of the relevant Waldorf student population. The socio-economic status (SES) of Waldorf students was found to be higher and more homogenous than that of other students in other school forms (Austria has several different school forms at this age level), but this was not weighed into the statistical comparisons. Waldorf students were found to be above the OECD average regarding joy and interest in science. They were also better when it came to *understanding* scientific questions. They were on average with other Austrian students regarding knowledge of scientific explanations, but below OECD average in this respect.

Ullrich (2008) reports a German case study focused on the qualities of the science teaching in a grade 10 Waldorf class. In contrast to the rather positive findings of the US and Austrian studies, Ullrich notes several problematic aspects:

- few students could follow the path from a lifeworld understanding of phenomena, based on sense-perceptual experience, to the abstract scientific explanation;
- as commonly observed also in mainstream schools, boys were more interested and girls more distanced and resigned;
- the absence of textbooks made it hard for students to check their understanding independently and outside class;
- individual feedback on learning progress was insufficient;
- the limited time available for the study period was a stress factor for both teacher and students;
- the whole class lecturing style could not sufficiently deal with the heterogeneity of the students' learning abilities.

[5]This presupposes a certain sensitivity on behalf of Waldorf teachers, not to present Steiner inspired views as science (implicitly or explicitly); something that may be hard to do if one is convinced of the truth of anthroposophy (cf. Schieren 2015).

The two studies from the USA and Austria both point in the direction that Waldorf students develop perceptual, cognitive and communicative abilities in the field of science to a comparatively high degree, but not so when it comes to the retention or reproduction of factual knowledge. This agrees with Steiner giving priority to the development of abilities and capacities, rather than the encyclopaedic accumulation of facts. The results of the Austrian study raise the question whether we want students who know a lot of things in science but are not so interested and eager to learn more, or whether we rather want them to be interested and enthusiastic even if they have not got all the facts right. On the basis of interest and enthusiasm, factual knowledge can easily be learnt or corrected, but the opposite may be harder to achieve.

As for the results of Ullrich's study, we do not know to what extent they are generally valid for Waldorf science teaching, and to what extent each of these qualities is present in every Waldorf science class. However, the criticisms from Waldorf graduates reported in other studies indicate that they may be present in many Waldorf schools, and Waldorf science teachers would do well to reflect on their significance.

7.4 Studies of Waldorf Civic Education

Part of the Swedish evaluation of Waldorf schools referred to above (Dahlin et al. 2006) was an assessment of students' knowledge, attitude and values in civic education, or education for citizenship (a general aim of Social Science studies). A comparison was made between Waldorf and mainstream students in grades 9 and 12. The assessment test was based on a sample of items taken from a national survey carried out by the Swedish National Agency for Education. The context, methods and results of the comparisons have been more extensively reported and discussed in Dahlin (2010b).

The assessment test had two main items, consisting of open-ended questions about two specific social and moral issues. The first was related to the problem of hostility towards immigrants. A photography was shown, which had previously been published in one of the Swedish evening papers. It showed a demonstration of Neo-Nazi youths, at which an elderly lady was physically attacking a demonstrating skinhead by hitting him over the head with her umbrella. The task the students were given was to:

- describe what was happening in the picture;
- explain the reasons behind the event in the picture;
- decide whether the event evoked questions concerning right and wrong and if so, which questions;
- suggest solutions to the problem, if they thought something was wrong or unjust;
- give reasons for the solutions they had suggested.

The second item also focused on a real event, related to the development of biotechnological research. A photography showed a foetus in the womb, and the accompanying text informed the student that a group of researchers at a Swedish hospital had applied for permission to do medical experiments on living foetuses in the womb. These were, however, only to be performed on foetuses that were to be aborted. Except for describing the event, the questions in this item were virtually the same as those for the first one.

To a larger extent, Waldorf students found these two problems to be interesting and easy to understand. When suggesting solutions to the problem in the first main item, they tended to refer to moral qualities such as love, sympathy, solidarity and moral courage to a somewhat greater extent than mainstream students. Their suggestions were also characterised by greater confidence in the innate goodness of human beings and showed less confidence in that 'more policemen', or more severe laws, could solve such problems on the social level. Instead they stressed individual responsibility. In the second main item, Waldorf students were more concerned about the risks for causing pain and suffering for the mother and/or the foetus. In grade 12, more Waldorf students thought that research 'goes too far' in its strivings for medical development. In this age group, suggestions that the problem should be solved by more strict laws were much less frequent among the Waldorf students.

Besides these two main items, the questionnaire also contained several complementary questions with fixed answers on graded scales. The purpose of these questions was to gather data on how the students reacted to the two assessment tasks, as well as about ethical or moral issues, such as feelings of responsibility, and attitudes towards extremist and other deviant groups.

In general, Waldorf students had more open and tolerant attitudes towards deviant groups, for instance homosexuals.[6] They also had more open and tolerant attitudes to immigrants and to religious and political extremists. Only regarding criminals and Nazis/racists was the relationship between the two response groups the opposite, i.e., Waldorf students showed a less tolerant attitude than mainstream students. Even though girls generally displayed more open and tolerant attitudes than boys in both response groups, the differences between the sexes in this respect were considerably less among the Waldorf students. In addition, it was found that Waldorf students felt a greater responsibility for present and future social and moral issues. Waldorf students more often felt they had a responsibility for the moral development of society, and that as adults they would have a responsibility to contribute something to the improvement of human and social conditions.

The most interesting result in this respect was the *increase* among Waldorf students in grade 12 of the general interest and engagement in social and moral issues, as compared to grade 9. Among mainstream students there was, in contrast, a *decrease*. Table 7.1 demonstrates this difference in several more specific items. If this reflects individual developments, it may predict a higher degree of future social

[6]The students' SES, as indicated by 'the number of books at home', was weighed into the results described in this paragraph. Unfortunately, SES data were not available for all comparisons.

Table 7.1 Comparisons of the frequency of positive answers to a number of survey questions. Percent within each grade and school form. (W9 = Waldorf grade 9 etc.,; M9 = mainstream school grade 9 etc.,; Δ% = percent difference) (from Dahlin 2010b, p. 176)

Question	W9	W12	Δ%	M9	M12	Δ%
Thought the two main test items were easy to understand	15	26	*11*	13	13	*0*
Thought the two main test items were important	34	58	*24*	25	22	*−3*
Thought the two main test items were interesting	23	41	*18*	12	16	*4*
Considered themselves good at Social Studies	31	39	*8*	35	19	*−16*
Thought Social Studies was interesting	45	66	*21*	44	36	*−8*
Thought the school's teaching of Social Studies was good	27	50	*23*	46	22	*−24*
Would feel responsible as an adult for the problems presented in the two main test items	22	33	*11*	15	16	*1*
Felt responsible for the moral development of society	24	35	*11*	17	17	*0*
Discussed moral issues at home	14	20	*6*	15	10	*−5*

or political engagement among Waldorf students.[7] Political engagement often has its roots in moral engagement and the experience that something is not in accord with justice (Haste and Hogan 2006). These possibly different patterns of development in Waldorf versus mainstream schools have a parallel in the tendency to 'early closure' among mainstream students regarding interest in environmental issues, as observed by Ashley (2005a, b). 'Early closure' means that already in the early teens there is a loss of interest in knowing more about these issues; there is a feeling that one knows enough already. Ashley quotes a 14-year-old boy saying: 'I don't want to hear anything more about the environment because I learned everything I need to know at primary school' (2005b; p. 190). In his work with the evaluation of Waldorf schools in Britain (Woods et al. 2005; see further below), Ashley got the impression that this tendency was not as strong among Waldorf students. In the higher grades, Waldorf students were often very interested and eager to know more. Could it be that young people get *tired* of studying the problems confronting humankind today, whether they are social/moral or natural/environmental in character, because they feel that they have learnt enough about these things already in the early school years? Could it be that *waiting* with the cognitive aspects of such issues to the higher grades, as is done in Waldorf schools, contributes to more interest and engagement among the older students?

[7]The underlying data are not longitudinal but based on cohorts. No definite conclusion can therefore be drawn about differences in students' individual development from grade 9 to grade 12.

Perhaps the tendency in mainstream schools to start before puberty with training in cognition, discussion and judgement formation results in a 'paralysis of analysis' among young people (cf. Gates 2006)?[8]

Another study, with results pointing in the same direction, was carried out in Norway by Solhaug (2007). Solhaug compared Waldorf and mainstream students at the upper secondary level. Waldorf students scored significantly higher on tolerance and *social engagement*, as well as on *interest* in social issues and participation in future *non-parliamentary* political activity. Mainstream students, on the other hand, scored higher on factual *knowledge* and on participation in future *parliamentary* elections.

Whether Waldorf pedagogy or students' home environment play the most important role in the observed differences is hard to say. In an analysis of regression, Solhaug (ibid.) found that although the home environment of the students accounted for most of the statistical variance, the schools themselves also had a small but significant influence on the results. Furthermore, and more important from the point of view of cultural freedom (see Chap. 6), if one imagines a situation where no Waldorf schools existed, present Waldorf parents would have to send their children to other schools, where they would be subject to influences not so strongly in accord with the beliefs and values of their parents. It seems likely that their children would then not develop in ways so clearly different from those of mainstream students.

Randoll (2010, p. 139f) reports on two relatively recent studies in Germany that demonstrate similar results as noted above. In comparison to upper secondary state school students, Waldorf students displayed more tolerance, empathy and responsibility for other people and the environment. Levels of racism and right-wing extremism were the lowest compared to other school forms, and former Waldorf students were much more frequently socially engaged than the population in general.

Thus, if schools want to educate actively engaged democratic citizens, they may learn something from Waldorf schools. Steiner recognised individualism and democracy as strong impulses in modern times, arising from the depths of human nature, and therefore as legitimate social ideals. But these ideals belong to adult life. It is not self-evident that they must be applied to children. Steiner even maintained that if school life and teaching are based on democracy, children will most probably be unfit for democracy later in life (Steiner 1997; p. 193). By letting the teacher be a natural authority in the lower grades, and saving the cognitive, reflective and judgmental activities until the higher grades, Waldorf education builds up a potential that can blossom as interest and social engagement in youth and adulthood. The results displayed in Table 7.1 are perhaps an indication that Waldorf education succeeds better than mainstream schools in inspiring the love of moral ideals that is a fundamental aspect of Steiner's ethics (see above, Chap. 3).

[8]See Dahlin (2010b) for a further discussion of these questions.

7.5 A British Study of Waldorf Educational Aims and Methods

A relatively large study of British Waldorf schools was carried out at the University of West of England by Woods et al. (2005). It was based on 23 British Waldorf schools, and the main purpose was to find possible 'good practices' established in these schools; practices that could be usefully transferred to mainstream schools. The researchers tried to widen the meaning of good practice to include more than the strictly evidence-based notion now commonly in use, so that the holistic character of Waldorf education could be captured. Data consisted of surveys and interviews with teachers, documentation from the schools on students' health, teacher density, development projects etc.,; and students' results on various tests. The study describes Waldorf education as strongly focused on individual development but at the same time giving all students a broad general education. It pointed to the absence of test competition and ranking among students, and that each student was given opportunities and challenges to learn within many fields of knowledge. The Waldorf students that were part of the study were very successful in finding ways into higher education in unconventional ways, even without formal merits. Waldorf schools were found not to be 'faith schools' in the usual sense because students were not taught to become anthroposophists; on the other hand, they were also not non-faith schools, because in various ways they tended to draw upon the religious traditions of the whole mankind.

As a result of the study, the researchers suggested several areas in which mainstream schools could learn from Waldorf schools and vice versa (cf. ibid., pp. 122ff). Some of the things mainstream schools could learn were:

- how to combine class and subject teaching for younger children;
- how to develop speaking and listening through an emphasis on oral work;
- how to develop a good pace in lessons through an emphasis on rhythm;
- the importance of child development in guiding the curriculum and examinations;
- how to approach the arts and creativity.

Ashley himself (2009) concludes that the main thing that can be learnt from Waldorf schools is how to create 'stability', as opposed to the fragmentation of both the curriculum and the psychological support of students, that characterises mainstream schools. The main lesson blocs of one subject at a time (*Epochenunterricht*) and the long-standing relationship with one class teacher are some important practical aspects of this. Waldorf schools, on the other hand, could above all learn more efficient forms of management and organisation (which need not have an undemocratic top-down structure).

7.6 Do Waldorf Students Become Anthroposophists?

The critics of Waldorf education often claim that Waldorf schools are sectarian world-view schools, teaching or indoctrinating their students in the anthroposophical view of life (cf. Prange 2000).[9] We saw above that 17% of German Waldorf students from the 1940s adhered to the anthroposophical world view. Critics could take this as a confirmation of their allegations. But post-war Germany was in a special situation, with normal social and cultural life eroded and destroyed. Over 20% of the Waldorf students at that time came from an anthroposophical family background (Randoll 2010). It is probable that anthroposophical parents put their children in Waldorf schools because of their own sympathy for anthroposophy. That many of their children also developed such sympathy may be the result primarily of family and peer influences, and not of the school curriculum as such.

That 16% of German Waldorf students felt a pressure to accept anthroposophical ideas (see above), may be for the same reasons. Be that as it may, the percentage of anthroposophists have constantly decreased, so if the allegations of indoctrination were true, the conclusion of the more recent empirical studies must be that Waldorf schools miserably fail in their attempts to educate future anthroposophists. The study by Barz and Randoll (2007) showed that only 3% of the former German Waldorf students were engaged in anthroposophy as adults. Of those who chose to work as teachers (14%), only 2% were Waldorf teachers. In the US study by Mitchell and Gerwin (2007), only 2.5% of the respondents were Waldorf teachers or otherwise involved in anthroposophy. The Swedish study by Dahlin et al. (2006) shows similar results: only 2% chose a vocational training related to anthroposophy.

On the other hand, it is obvious that Waldorf education is based on a spiritual view of humanity and the world, and Waldorf schools are therefore—as Woods et al. (2005) put it—'not non-faith schools'. Are they therefore religious? Despite Steiner's repeated claims that Waldorf schools are not—or should not be—*Weltanschauungsschulen*, propagating a certain world view or view of life, he also said that the task of Waldorf education is to educate the whole human being, and that this whole human being is to be 'religiously deepened' (*religiös zu vertiefen*; Steiner 1986 [GA 307], p. 209)[10]. In the early school years, children should learn to love the world and to feel gratitude to life and all that it brings. Teachers, on their part, should look upon their work as a sort of 'service of God' (*Gottesdienst*) (ibid.). Many people would take these ideas as expressions of a religious view of education. On the other hand, love of the world and gratitude to life are values that are recognised also within purely secular world views, and the 'God' that is served in teachers' work is not further specified. Steiner's idea of religiosity is not bound to

[9]There are several websites devoted to the criticism of Waldorf education; see for instance http://www.waldorfcritics.org.

[10]English edition: Steiner (1989).

any religious tradition. It is *spiritual* rather than religious in the conventional sense.[11] However, Waldorf teachers and other representatives of Waldorf education sometimes seem reluctant to admit the spiritual nature of their basic ideas, which may add more fuel to the criticisms.

7.7 Conclusion

In their review of research on Waldorf schools, Woods et al. (2005) note that despite the lack of large scale, systematic and methodically rigorous studies, the many small-scale studies that have been done provide a cumulative sense of a positive correlation between Waldorf pedagogy and children's learning, development and 'holistic growth of the person' (ibid., p. 4). The studies presented in this chapter have some overriding results in common, which point in the same direction. They all display Waldorf students/graduates as more interested and engaged in learning new things, as compared to mainstream students. This goes for both natural science and human or social fields of knowledge. They also seem more interested and engaged in social and/or political activity. Some of the studies indicate that Waldorf students possess better developed perceptual, imaginative and communicative abilities. All this is in line with Steiner's emphasis on the development of abilities and capacities as being more important than the accumulation of factual knowledge.

Among the negative findings, the complaints among former Waldorf students of deficits in the teaching of science, foreign languages and other factually dense fields of knowledge, as well as of an absence of performative challenges and feedback, stand out as particularly common. This may be the shadow side of putting too much emphasis on the individuality and creativity of the students. There may be a certain resistance on behalf of Waldorf teachers to make high demands and outspoken assessments of students' responses, because such acts may be construed as oppressive or disrespectful.

Another interesting general result is that observed gender differences regarding knowledge, attitudes and values, are less among Waldorf students, compared to mainstream students. This may be seen in the light of cultivating the 'universally human' and getting beyond gender-determined stereotypes. Similarly, in an ethnographic study of a Swedish Waldorf kindergarten, Frödén (2012) observes that the pedagogical practices of the kindergarten staff worked in a 'gender-uncoding' way: boys and girls tended to do the same things and display similar behaviours. It is interesting to contrast this with the criticisms of gender-biased

[11] A distinction between spirituality and religion has been established in present-day philosophical, sociological and educational discourse. See for instance Lynch (2007), who characterises the 'new spirituality' emerging in Western culture as 'the unity of the ineffable and immanent Divine' (pp. 43ff); 'pantheism/panentheism' (pp. 48ff); 'mysticism and the divine feminine' (pp. 50ff); 'the sacralization of nature' (pp. 53ff); and 'the sacralization of self' (pp. 55ff). Most of these aspects are in accord with anthroposophy.

storytelling for young children, as described by Ashley (2009). Since Waldorf education often uses traditional fairy tales, in which men/boys and women/girls have traditional gender roles, one could expect a confirmation of such roles. But this is a rather superficial view, since the fairy tales are symbolical and point to male and female *qualities*, not to individuals.[12]

Although it is growing in the world, Waldorf education is still largely neglected by mainstream educational research and practice (and vice versa, it may be added). Nevertheless, critics continue to attack it, sometimes hostilely. There may certainly be instances of malpractice, but Steiner's educational thought contains many interesting and potentially useful ideas, which go against the grain of present educational practice and policy trends—trends that are also heavily criticised by many mainstream educational researchers. Even if Waldorf education will never achieve wholesale acceptance, it is of vital importance that there is a free cultural space available for those parents and teachers, who wish that their children receive this kind of education.

Over the soon one hundred years since their inception, Steiner's ideas for the curriculum and practice of Waldorf education have become a (more or less) fixed tradition, transmitted both orally by senior teachers to younger ones, and in textbooks. Publicly available curriculum plans and syllabuses exist in many different languages (e.g. Rawson 2000). There are of course influences from immediately surrounding social, cultural and political conditions (cf. Stabel 2014), but the common elements dominate. It is hard to accept that this is what Steiner himself wished to happen, considering his emphasis on freedom, individuality and creativity in teaching. There is an anecdote about one of Steiner's visits to a Waldorf school, when he went around to different classrooms and watched the teaching going on there. Afterwards he expressed a disappointment over the fact that what he had seen in the different classrooms was so similar. As pointed out above, Steiner never had the intention to give exact prescriptions for how teaching should be carried out. He wanted to give conceptual *frameworks* and basic *principles*, on the basis of which contents and teaching methods could be creatively derived and continuously renewed.

In its high ideals and ambitious goals, Waldorf education could be viewed as an 'edutopia' (Peters and Freeman-Moir 2006), not least because of its aim of social reform. Most utopian ideologies, from Plato and onwards, have specific ideas about how education should be organised to create and/or maintain a new social order (cf. Dahlin 2009). However, such ideologies are based on 'grand metaphysical narratives', in which the nature of the world, society and human beings are explained in ways that nowadays are often looked upon with scepticism or postmodern irony. All edutopias of the past have failed, and so has Waldorf education; that is, on the macrosocial scale. The ideals of the threefold social order (described

[12]Somewhat similar to the views of C.G. Jung, Steiner also maintained that there are female qualities in men, and male qualities in women (cf. Wehr 2002). One could of course argue that children are not capable of understanding the difference between qualities and persons. Nevertheless, the empirical data indicate less stereotyped gender identifications.

in Chap. 6) are as far as ever from being realised in any of the nations where Waldorf schools have existed for any length of time. Should we therefore abandon as futile all Great Educational Philosophies, as Aviram (2006) calls them? Like Aviram, I would say no. We still need them for inspiration and guidance, but they must have a certain open-ended and open-to-dialogue character. Whether Waldorf education has these qualities depends very much on the people who carry it in thought and practice. Even though his present-time critics want to depict him as authoritarian and sectarian, from his autobiography, and from testimonies of his contemporaries, it seems evident that Steiner himself did have such qualities.

References

Ashley, M. (2005a). *Authority, anarchy and anachronism on the slopes of sustainability: Steiner Waldorf pedagogy and the development of mature judgment*. BERA Annual Conference, University of Glamorgan, 14–17 September 2005.

Ashley, M. (2005b). Tensions between indoctrination and the development of judgment: The case against early closure. *Environmental Education Research, 11*(2), 187–197.

Ashley, M. (2009). Education for freedom: The goal of Steiner/Waldorf schools. In P. A. Wood & G. J. Woods (Eds.), *Alternative education for the 21st century: Philosophies, approaches, visions* (pp. 209–225). New York, NY: Palgrave Macmillan.

Aviram, A. (2006). Philosophy as a bridge between postmodern culture and education, or: In support of postmodern philosophical educational utopias. In M. A. Peters & J. Freeman-Moir (Eds.), *Edutopias: New utopian thinking in education* (pp. 235–255). Rotterdam: Sense Publishers.

Baldwin, F., Gerwin, D., & Mitchell, D. (2005). *Research on Waldorf Graduates in North America. Phase I*. Wilton, NH: The Research Institute for Waldorf Education.

Barz, H., & Randoll, D. (Eds.). (2007). *Absolventen von Waldorfschulen: Eine empirische Studie zu Bildung und Lebensgestaltung* [Waldorf school graduates: An empirical study of *Bildung* and life formation]. Wiesbaden: VS Verlag für Sozialwissenschaften.

Barz, H., Liebenwein, S., & Randoll, D. (2012). *Bildungserfahrungen an Waldorfschulen: Empirische Studie zu Schulqualität und Lernerfahrungen* [Experiences of *Bildung* in Waldorf schools. Empirical studies of school quality and learning experiences]. Wiesbaden: Springer.

Dahlin, B., Liljeroth, I., & Nobel, A. (2006). *Waldorfskolan – en skola för människobildning? Slutrapport från projektet Waldorfskolor i Sverige.* (Forskningsrapport 2006:46) Karlstad: Karlstad University Studies.

Dahlin, B. (2007). *The Waldorf school—Cultivating humanity? A report from an evaluation of Waldorf schools in Sweden.* (Research Report 2007:29). Karlstad: Karlstad University Studies. Retrieved 24 March, 2017, from http://swepub.kb.se/bib/swepub:oai:DiVA.org:kau-3600?tab2=abs&language=en.

Dahlin, B. (2009). Psycho-utopianism and education: Comenius, Skinner, and beyond. *World Futures, 65*(7), 507–526.

Dahlin, B. (2010a). Does Waldorf education need particular methods of assessment and evaluation? In H. Paschen (Ed.), *Erziehungswissenschaftliche Zugänge zur Waldorfpädagogik* (pp. 157–171). Wiesbaden: VS Verlag.

Dahlin, B. (2010b). A state-independent education for citizenship? Comparing beliefs and values related to civic and moral issues among students in Swedish mainstream and Steiner Waldorf schools. *Journal of Beliefs and Values, 31*(2), 165–180.

Frödén, S. (2012). *I föränderliga och slutna rosa rum. En etnografisk studie av kön, ålder och andlighet i en svensk waldorfförskola* [In changeable and closed pink rooms. An ethnographic study of gender, age and spirituality in a Swedish Waldorf preschool]. Örebro: Örebro University.

Gates, B. E. (2006). Where is the moral in citizenship education? *Journal of Moral Education, 35,* 437–441.

Gidley, J. (1998). Prospective youth visions through imaginative education. *Futures: The journal of policy, planning and futures studies, 30*(5), 395–408.

Gidley, J., & Hampson, G. (2005). The evolution of futures in school education. *Futures: The journal of policy, planning and futures studies, 37*, 255–271.

Haste, H., & Hogan, A. (2006). Beyond conventional civic participation, beyond the moral-political divide: Young people and contemporary debates about citizenship. *Journal of Moral Education, 35,* 473–493.

Helsper, W., Ullrich, H., Stelmaszyk, B., Höblich, D., Grasshoff, G., & Jung, D. (2007). *Autorität und Schule. Die empirische Rekonstruktion der Klassenlehrer-Schüler-Beziehung an Waldorfschulen* [Authority and school. The empirical reconstruction of the class teacher—student relation in Waldorf schools]. Wiesbaden: VS Verlag für Sozialwissenschaften.

Jelinek, D., & Sun, L.-L. (2003). *Does Waldorf offer a viable form of Science Education?*. Sacramento, CA: CSU College of Education.

Lynch, G. (2007). *The new spirituality: An introduction to progressive belief in the twenty-first century*. London: IB Tauris.

Mitchell, D., & Gerwin, D. (2007). *Survey of Waldorf graduates, Phase II*. Wilton, NH: AWSNA Publications.

Østergaard, E., Dahlin, B., & Hugo, A. (2008). Doing phenomenology in science education: A research review. *Studies in Science Education, 44*(2), 93–121.

Paschen, H. (Ed.). (2010). *Erziehungswissenschaftliche Zugänge zur Waldorfpädagogik* [Educational research approaches to Waldorf education]. Wiesbaden: VS Verlag.

Peters, M. A., & Freeman-Moir, J. (Eds.). (2006). *Edutopias: New utopian thinking in education*. Rotterdam/Taipei: Sense Publishers.

Prange, K. (2000). *Erziehung zur Anthroposophie. Darstellung und Kritik der Waldorfpädagogik* [Education to anthroposophy. Display and critique of Waldorf education]. Bad Heilbrunn: Verlag Julius Klinkhardt.

Randoll, D. (2010). Empirische Forschung und Waldorfpädagogik [Empirical research and Waldorf education]. In H. Paschen (Ed.), *Erziehungswissenschaftliche Zugänge zur Waldorfpädagogik* (pp. 127–156). Wiesbaden: VS Verlag.

Rawson, M., & Richter, T. (2000). *The educational tasks and content of the Steiner Waldorf curriculum*. Forest Row: Steiner Schools Fellowship Publication.

Schieren, J. (2015). Der Weltanschauungsvorwurf. Von Einfluss der Anthroposophie auf die Waldorfpädagogik – Eine Frage des Form und des Maßes [The world-view allegation. On the influence of anthroposophy on Waldorf pedagogy—A question of form and proportion]. *RoSE: Research on Steiner Education, 6*(1), 103–108.

Solhaug, T. (2007). Steinerskoler i et demokratisk perspektiv: En sammenlikning med offentlige skoler i Norge [Steiner schools in a democratic perspective. A comparison with public schools in Norway]. *Nordisk Pedagogik*, *27,* 150–171.

Stabel, A.-M. (2014). *Visjoner og vilkor. Om Steinerskolens vilkor i Norge fra 1926–2004* [Visions and conditions. About the conditions for Steiner schools in Norway from 1926–2004]. Oslo: University of Oslo.

Steiner, R. (1986). *Gegenwärtiges Geistesleben und Erziehung* [Contemporary spiritual life and education]. (GA 307). Dornach: Rudolf Steiner Verlag.

Steiner, R. (1989). *Education and modern spiritual life*. (GA 307). Blauvelt, NY: Steiner Books.

Steiner, R. (1997). *Education as a force for social change. Lectures*. New York: Anthroposophic Press.

Sweeney, E. (2010). *Atlantis: the evidence of science*. New York: Algora Publishing.

Ullrich, H. (2008). *Herausforderungen und Qualitätsfragen eines phänomenologischen Unterrichtes* [Challenges and issues of quality in a phenomenological teaching]. In J. Schieren (Ed.), Was ist und wie entsteht: Unterrichtsqualität an der Waldorfschule? (pp. 109–125). München: Kopaed.

Wallner-Paschon, C. (2009). Kompetenzen und individuelle Merkmale der Waldorfschüler/innen im Vergleich [Competencies and individual characteristics of Waldorf students in comparisons]. In C. Schreiner & U. Schwantner (Eds.), *PISA 2006: Österreichischer Expertenbericht zum Naturwissenschafts-Schwerpunkt* (pp. 387–400). Graz: Leykam. Retrieved 24 March, 2017, from https://www.bifie.at/buch/815/9/6.

Watkins, D., & Dahlin, B. (1997). Assessing study approaches in Sweden. *Psychological Reports, 81,* 131–136.

Wehr, G. (2002). *Jung & Steiner. The birth of a new psychology*. Great Barrington, MA: Anthroposophic Press.

Woods, P., Ashley, M., & Woods, G. (2005). *Steiner schools in England. Research Report RR645*. Bristol: University of West England.

Yager, R. (1991). The constructivist learning model. *The Science Teacher, 58*(6), 52–57.